# NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION 

## 2015 BUSINESS PLAN AND BUDGET FILING

## ATTACHMENT 1

SUMMARY TABLES FOR NERC AND REGIONAL ENTITY

PROPOSED 2015 BUDGETS AND ASSESSMENTS

## NERC'S Proposed Budget by Program ${ }^{1}$

| NERC Program | 2014 Budget for Statutory Functions |  | 2015 Budget for Statutory Functions |  |
| :---: | :---: | :---: | :---: | :---: |
| Reliability Standards | \$ | 10,167,369 | \$ | 10,247,145 |
| Compliance Monitoring and Enforcement |  |  |  |  |
| Regional Entity Assurance and Oversight | \$ | 5,712,007 | \$ | 5,737,572 |
| Compliance Analysis, Certification and Registration | \$ | 3,784,438 | \$ | 4,864,863 |
| Compliance Enforcement | \$ | 6,395,091 | \$ | 5,806,866 |
| Reliability Assessments and Performance Analysis | \$ | 8,350,598 | \$ | 9,825,750 |
| Training, Education and Operator Certification | \$ | 3,737,472 | \$ | 3,950,926 |
| Reliability Risk Management |  |  |  |  |
| Event Analysis | \$ | 4,048,371 | \$ | 4,203,169 |
| Situation Awareness | \$ | 4,583,264 | \$ | 3,646,902 |
| Critical Infrastructure Department ${ }^{2}$ |  |  |  |  |
| Critical Infrastructure Protection | \$ | 5,507,708 | \$ | 4,495,972 |
| ES-ISAC | \$ | 4,103,777 | \$ | 13,870,144 |
| Total Budget | \$ | 56,390,095 | \$ | 66,649,309 |
| ${ }^{1}$ Does not include the proposed provision for Working Capital reserve funding |  |  |  |  |
| ${ }^{2}$ The 2014 budgets for Critical Infrastructure Protection and the ES-ISAC shown above are slightly different than the budgets presented in NERC's 2014 Business Plan and Budget due to a correction in the allocation of costs between the two departments after the 2014 Budget was filed. The 2014 budgets shown in the 2014 Business Plan and Budget as filed were $\$ 5,668,027$ for Critical Infrastructure Protection and $\$ 3,943,457$ for ES-ISAC. |  |  |  |  |

Proposed Budget for Statutory Activities of NERC, each Regional Entity and WIRAB ${ }^{1}$

|  | 2014 Budget for Statutory Functions |  | 2015 Budget for Statutory Functions |  |
| :---: | :---: | :---: | :---: | :---: |
| NERC | \$ | 56,390,095 | \$ | 66,649,309 |
| FRCC | \$ | 6,794,932 | \$ | 7,162,233 |
| MRO | \$ | 9,744,799 | \$ | 10,328,687 |
| NPCC | \$ | 14,129,006 | \$ | 14,778,539 |
| RFC | \$ | 18,063,201 | \$ | 18,756,763 |
| SERC | \$ | 16,877,288 | \$ | 15,995,840 |
| SPP RE | \$ | 11,823,629 | \$ | 11,808,110 |
| TRE | \$ | 11,771,248 | \$ | 11,983,701 |
| WECC | \$ | 25,638,084 | \$ | 26,300,035 |
| WIRAB | \$ | 703,700 | \$ | 1,013,857 |
| Total Budget | \$ | 182,195,196 | \$ | 184,777,074 |
| Peak Reliability | \$ | 32,958,648 | \$ | 38,926,722 |

Proposed Assessments for Statutory Activities of NERC and each Regional Entity

|  | Assessments for Statutory Functions 2014 |  | Allocation to Canada$2014$ |  | Assessments for <br> Statutory Functions 2015 |  | Allocation to Canada$2015$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NERC | \$ | 51,401,382 | \$ | 4,554,567 | \$ | 55,308,375 | \$ | 5,111,411 |
| FRCC | \$ | 5,488,057 | \$ | - | \$ | 6,062,838 | \$ | - |
| MRO | \$ | 8,741,444 | \$ | 1,402,080 | \$ | 9,426,019 | \$ | 1,579,249 |
| NPCC | \$ | 13,611,881 | \$ | 5,163,960 | \$ | 14,068,878 | \$ | 5,309,142 |
| RFC | \$ | 15,159,784 | \$ | - | \$ | 18,713,897 | \$ | - |
| SERC | \$ | 13,734,499 | \$ | - | \$ | 13,731,034 | \$ | - |
| SPP RE | \$ | 9,219,123 | \$ | - | \$ | 9,680,648 | \$ | - |
| TRE | \$ | 10,509,308 | \$ | - | \$ | 10,500,446 | \$ | - |
| WECC ${ }^{1}$ | \$ | 16,219,260 | \$ | 5,974,286 | \$ | 26,090,293 | \$ | 2,795,630 |
| Total Budget | \$ | 144,084,738 | \$ | 17,094,893 | \$ | 163,582,428 | \$ | 14,795,433 |

# NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION 

## 2015 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 2

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

PROPOSED 2015 BUSINESS PLAN AND BUDGET

## NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

# 2015 Business Plan 

 and BudgetAugust 5, 2014

RELIABILITY | ACCOUNTABILITY


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## About NERC

## Overview

The North American Electric Reliability Corporation (NERC) is a not-for-profit entity organized under the New Jersey Nonprofit Corporation Act. NERC's mission is to improve and ensure the reliability of the Bulk Electric System (BES) in North America. NERC's area of responsibility spans the continental United States and Canada and the northern portion of Baja California, Mexico. Entities under NERC's jurisdiction are the users, owners, and operators of the bulk power system (BPS) -a system that serves the needs of over 340 million people, includes installed electricity production capacity of approximately 1,200 gigawatts, operates 475,000 miles of high-voltage transmission ( 100 kV and above), and is comprised of assets worth more than one trillion dollars.

## Electric Reliability Organization (ERO)

The Federal Energy Regulatory Commission (FERC or Commission) certified NERC as the electric reliability organization (ERO) within the United States to establish and enforce Reliability Standards for the United States portion of the BPS, pursuant to section 215 of the Federal Power Act. NERC is subject to regulatory oversight by FERC. As of June 18, 2007, FERC granted NERC the legal authority to enforce Reliability Standards with all U.S. users, owners, and operators of the BES and made compliance with those standards mandatory and enforceable. Equivalent relationships have been sought and for the most part realized in Canada and Mexico.

## International Relations

Prior to adoption of $\S 215$ in the United States, the provinces of Ontario (in 2002) and New Brunswick (in 2004) adopted all Reliability Standards that were approved by the NERC Board as mandatory and enforceable within their respective jurisdictions through market rules. Reliability legislation is in place or NERC has memoranda of understanding with provincial authorities in Ontario, New Brunswick, Nova Scotia, Québec, Manitoba, Saskatchewan, British Columbia, and Alberta, and with the National Energy Board of Canada (NEB). NERC standards are mandatory and enforceable in Ontario and New Brunswick as a matter of provincial law. Manitoba has adopted legislation, and standards are mandatory there. In addition, NERC has been designated as the "electric reliability organization" under Alberta's Transmission Regulation, and certain Reliability Standards have been approved in that jurisdiction; others are pending. NERC standards are now mandatory in British Columbia and Nova Scotia. NERC and the Northeast Power Coordinating Council (NPCC) have been recognized as standards-setting bodies by the Régie de l'énergie of Québec, and Québec has the framework in place for Reliability Standards to become mandatory. NEB has made Reliability Standards mandatory for international power lines.

In Mexico, the Comissión Federal de Electricidad (CFE) has signed WECC's reliability management system agreement, which only applies to Baja California Norte.

## Membership and Governance

An eleven-member Board of Trustees (Board), comprised of ten independent directors and NERC's president and chief executive officer serving as the management trustee, governs NERC. The Board formed several committees to facilitate oversight of the organization in the areas of finance and audit, governance and human resources, compliance, standards oversight and technology, nominations, and most recently, enterprise-wide risk. In February 2014, the former risk management and internal controls subcommittee (RMICS) of the Finance and Audit Committee was approved as a separate committee of
the Board, known as the Enterprise-Wide Risk Committee (EWRC). The EWRC provides oversight and guidance regarding corporate risk management and internal audit functions. Additionally, the Reliability Issues Steering Committee (RISC) serves as an advisory committee that reports directly to the Board and triages and provides front-end, high-level leadership and accountability for nominated issues of strategic importance to BES reliability.

Membership in NERC is open to any person or entity that has an interest in the reliability of the North American BES. Membership in NERC is voluntary and affords participants the opportunity to engage in the governance of the organization through election to the Member Representatives Committee (MRC). ${ }^{1}$ More than six hundred entities and individuals are members of NERC.

## Scope of Oversight

As the international, multi-jurisdictional ERO, NERC is authorized to:

- Propose, monitor compliance with, and enforce mandatory Reliability Standards for the North American BPS, subject to regulatory oversight and approvals from FERC in the United States and applicable authorities in Canada;
- Conduct near-term and long-term assessments of the reliability and future adequacy of the North American BPS;
- Certify BPS operators as having and maintaining the necessary knowledge and skills to perform their reliability responsibilities;
- Maintain situational awareness of events and conditions that may threaten the reliability of the BPS;
- Coordinate efforts to improve physical and cyber security for the BPS of North America;
- Conduct detailed analyses and investigations of system disturbances and unusual events to determine root causes, uncover lessons learned, and issue relevant findings as advisories, recommendations, and essential actions to the industry; and
- Identify, based on lessons learned, the potential need for new or modified Reliability Standards, improved compliance monitoring and enforcement methods, or other initiatives.


## Delegated Authorities

In executing its responsibility, NERC delegates certain authorities to eight regional reliability entities (Regional Entities or the Regions) to perform aspects of the ERO functions described through delegation agreements. FERC has approved delegation agreements between NERC and the eight Regional Entities (Florida Reliability Coordinating Council (FRCC), Midwest Reliability Organization (MRO), Northeast Power Coordinating Council, Inc. (NPCC), ReliabilityFirst (ReliabilityFirst), SERC Reliability Corporation (SERC), Southwest Power Pool Regional Entity (SPP RE), Texas Reliability Entity, Inc. (Texas RE), and the Western Electricity Coordinating Council (WECC) ${ }^{2}$ ). These agreements describe the authorities delegated and responsibilities assigned to the Regional Entities in the United States to address, among other things: (1) developing regional Reliability Standards, (2) monitoring compliance with and enforcing mandatory

[^0]Reliability Standards (both North American-wide and regional), (3) certifying registered entities and registering owners, operators, and users of the BES, (4) assessing reliability and analyzing performance, (5) training and education, (6) event analysis and reliability improvement, and (7) situation awareness and infrastructure security. NERC expects Regional Entities whose territories and geographic footprints extend into Canadian provinces and Mexico to perform equivalent functions in those jurisdictions.

## ERO Enterprise Operating Model

The collective network of leadership, experience, judgment, skills, and technologies shared among NERC and the eight Regional Entities is referred to as the ERO Enterprise ${ }^{3}$ (the enterprise). In 2014, a common operating model, Improving Coordinated Operations across the ERO Enterprise, was developed to define how NERC and the Regional Entities achieve excellence in the oversight and execution of statutory functions by collaborating and working together to mitigate reliability risks. The model also defines the division of the roles and responsibilities for NERC and the Regional Entities to efficiently and effectively execute services performed as the collective enterprise.

NERC has unique responsibilities within the enterprise to design the oversight of program areas; develop operational oversight and leadership; set qualifications and expectations for the performance of delegated activities; and assess, train, and give feedback to corresponding regional programs. NERC also reviews and provides input to the annual Regional Entity business plans and budgets, including but not limited to review of resource allocations, staffing capacity assessments, and program performance assessments. NERC input and review occurs before regional board approval.

Similarly, the Regional Entities have a mirrored set of responsibilities that include being responsive to the design of the operational model, providing input into the overall development of each ERO program area, providing training and development to meet ERO qualifications, and being receptive to feedback from the ERO and making responsive adjustments. Regional Entities also have an obligation to meet professional standards of independence and objectivity and to provide the best available expertise for addressing risks.

With due recognition and awareness of the distinction between individual roles, responsibilities, and corporate status, NERC and the Regional Entities are continually refining their individual and collective operating and governance practices in support of an agreed-upon set of strategic goals and objectives that are designed to ensure the ERO fulfills its statutory obligations.

## Statutory and Regulatory Background

NERC's authority as the ERO in the United States is based on Section 215 of the Federal Power Act, as added by the Energy Policy Act of 2005, ${ }^{4}$ and the Commission's regulations and orders issued pursuant to Section 215. In Canada, NERC's authorities are established by the memoranda of understanding and regulations previously mentioned.

## Funding

Section 215 of the Federal Power Act and the Commission's regulations also specify procedures for NERC's funding in the United States. NERC's annual business plan and budget is subject to Commission approval in the United States. Once approved, assessments are allocated to load-serving entities on a net-energy-for-load (NEL) basis. Equivalent funding mechanisms are provided in Canada, subject to the specific laws and regulations of each province.

[^1]The Regional Entities' funding requirements are addressed separately in their respective business plans and budgets, which must be reviewed and approved by NERC and FERC in the United States. Assessments for the Regional Entity budgets are included in the overall NERC assessments to load-serving entities.

## Introduction and Executive Summary



## Strategic Goals, Objectives, and Metrics

Developing the common operating model for NERC and the Regional Entities aligned the enterprise's business planning goals, objectives, metrics, and assumptions for the 2014-2017 planning period. In February 2014, the NERC Board approved an updated version of the ERO Enterprise Strategic Plan with newly aligned goals, objectives, and deliverables for the 2014-2017 planning period. Prior to its approval, the NERC Board included the plan as part of the February 2014 policy input request letter to the MRC for member comment. NERC posted the written comments and policy input on the NERC website. NERC is tracking corresponding actions related to strategic planning and the business plan an ongoing basis as part of the business plan and budget process.

## Performance Metrics

The strategic plan for 2014-2017 includes five consolidated goals within the existing areas of standards; compliance, registration, and certification; risks to reliability; and coordination and collaboration. New in 2014, NERC and the Regional Entities agreed to implement four overarching performance metrics designed to assess the overall effectiveness of the enterprise in addressing risk to the BES and improving BES reliability. These metrics concentrate on achieving reliability results, assuring standards and compliance effectiveness, and improving risk mitigation and program execution. The enterprise metrics are reviewed annually as part of the strategic planning process and are prioritized based on current year activities and major initiatives.

Demonstrating Success (2014-2017)

- Achieve reliability results
- Assure standards and compliance effectiveness
- Improve risk mitigation
- Execute effective ERO programs

In May 2014, the NERC Board approved the 2014 performance metrics. The four metrics, used in 2014 to measure the enterprise's success against the strategic goals, are not inclusive of all the objectives and deliverables identified for the entire three-year planning period; therefore, some of the deliverables listed in the strategic plan may not be specifically listed word-for-word in the four metrics approved for 2014. The 2015 performance metrics are expected to be finalized in fall of 2014.

NERC publicly posts and reviews quarterly corporate performance results with its Corporate Governance and Human Resources Committee.

## Stakeholder Engagement

As one of the enterprise's guiding principles, NERC and the Regional Entities involved stakeholders with knowledge and expertise on a collaborative basis in the early development of the strategic plan, in the identification of prioritized risk-based activities, and in the development of the 2015 Business Plan and Budget. NERC obtained stakeholder input from a number of sources, including but not limited to the RISC, other standing committees of the Board, and the MRC's business planning and budget input group, which was specifically established in 2012 to provide and help coordinate annual input in the development of NERC's business plan and budget.

## Priorities and Major Activities

The electric grid is one of the nation's most critical infrastructures, and the North American BES is one of the largest, most complex, and most robust systems ever created. Several, if not all, of the other critical infrastructure sectors are dependent on electric power. As the organization charged with ensuring the reliability and security of the North American power grid, NERC continues its focus on the changing risk landscape from conventional risks (such as extreme weather and equipment failures) to new and emerging risks in the security arena. Coordinated physical and cyber attacks intended to disable elements of the power grid or deny electricity to specific targets differ from conventional risks in that they result from intentional actions by adversaries and are not simply random failures or acts of nature. These threats are not new, but they have evolved and continue to demand more and more attention from industry and the ERO. Recognizing the costs to electricity users associated with these efforts requires prioritization, along with risk management, to ensure that the ERO is focusing resources on the greatest risks to the reliability of the BES.

NERC and the Regional Entities are invested in achieving positive results for reliability, demonstrating the effectiveness of the ERO by closing gaps in Reliability Standards, designing and implementing effective risk-based compliance monitoring and enforcement, and executing ERO programs and operational
activities that support transparent and reliability-focused strategic goals and objectives. The following paragraphs highlight key initiatives and priorities.

## Risk-Based Strategy - (ERO Enterprise Goal 4 and Metric 3)

The enterprise continues to integrate risk management principles and set priorities to address the reliability issues of greatest importance. The focus in 2015 and beyond will be to solve specific issues that present risk to reliability, to improve reliability performance, to minimize the use of less-effective processes, and to avoid using already limited resources on less-important issues.

In 2013, the RISC presented priority recommendations ${ }^{5}$ to the NERC Board and worked closely with NERC and Regional Entity staffs to review, analyze, and identify a number of high-priority reliability risk areas of strategic importance for the ERO. This collaborative risk-based prioritization is being integrated into a multi-year reliability risk management process to identify projects the enterprise will undertake year to year, ensure the efficient use of resources to focus on high-risk areas, maximize opportunities for industry input, and align with the ERO's strategic and business planning priorities. ${ }^{6}$

The following list identifies the current risk projects that were selected from this collaborative risk-based prioritization process and the areas for focus in 2014, with a number of these efforts extending into 2015. The list is not inclusive of all the activities planned for 2015. The complete 2015 list will be identified after risk control projects are compiled and as the RISC informs the ERO of its priorities and projects. A preliminary set of 2015 project areas is provided in the discussion of the Reliability Assessment and Performance Analysis Department's 2015 activities in Section A.

Current ERO Enterprise High-Priority Risk Projects:

1. Changing Resource Mix - As the generation and load on the power system change (e.g., as a result of integrated variable resources, increased dependence on natural gas, increased demand-side management, new technologies deployed, etc.), the system is being brought into states that are significantly different than when it was designed and planned, which exposes new vulnerabilities not previously considered. Fundamental operating characteristics and behaviors are no longer a certainty. Without focusing on how to respond, this risk will increase.
2. Extreme Physical Events - While the probability of physical events (such as physical attack, geomagnetic disturbance, or severe weather) that lead to extensive damage is low, the potential consequences are high enough that risk avoidance (reducing the probability) is insufficient as a sole risk management strategy. Risk mitigation efforts (reducing the potential consequence) are also underway, but additional focus is needed to address the risk of physical events and minimize both the magnitude and duration of their consequences.
3. Protection System Misoperations - NERC's 2012 and 2013 State of Reliability reports identified protection system misoperations as a significant threat to BES reliability. Additional activities are needed to ensure this risk is managed adequately.

[^2]4. Cold Weather Preparedness - Lack of generator preparedness for cold weather extremes may result in forced outages, de-ratings, and failures to start. Insufficient availability of intra-regional generation and limits on import transfer capability may result in insufficient generation to serve forecasted load, resulting in load shedding.
5. Right-of-Way Clearances - Transmission Owners and applicable Generation Owners may have established incorrect ratings that are based on design documents, rather than on the actual facilities built. Managing to stay within operating limits that are based on incorrect ratings may be inadequate to prevent equipment damage, cascading, instability, or separation.
6. $\mathbf{3 4 5} \mathbf{~ k V}$ Breaker Failures - NERC has identified a potential trend of 345 kV SF6 puffer-type breakers failing. In conjunction with another fault, circuit breaker failures may lead to more BES facilities being removed from service than is required to clear the original fault. This poses a risk to the reliability of the BES.

Using the 2014 projects as a baseline for gauging resource demands, NERC plans to provide an equivalent level of support in 2015 to address high-risk priority projects. Section A describes the resources anticipated to support risk projects in 2015 and includes the need to reallocate existing resources from 2014 to support the continuation and completion of project activities in 2015. ${ }^{7}$

## Physical Security and Cybersecurity - (ERO Enterprise Goals 3 and 4)

In March 2014, FERC directed the ERO to create one or more physical grid security Reliability Standards that require registered entities to address physical security risks and vulnerabilities related to the reliable operation of the BES. NERC engaged subject matter experts throughout the Regions and among industry to assist in drafting a standard within a 90-day time period. The proposed standard requires registered entities to prioritize their most critical assets based on vulnerability and other criteria. The proposed standard final ballot closed on May 5, 2014, with 86 percent approval from the ballot body. It was adopted by the Board on May 13, 2014, and was filed with FERC for approval on May 23, 2014.

NERC has initiated a transition program to help industry understand and implement NERC's Critical Infrastructure Protection Version 5 (CIP Version 5) Reliability Standards in a timely, efficient manner. CIP Version 5 represents a significant improvement over the current CIP Version 3 standards. CIP Version 5 includes new cybersecurity controls and extends the scope of the systems that the CIP standards protect. The transition program will be in place through the enforcement date of the Version 5 standards. The goal of the transition program is to improve industry's understanding of the technical security requirements for CIP Version 5, as well as the expectations for compliance and enforcement.

NERC is also proposing to assume a program oversight role with respect to the Cyber Risk Information Sharing Program, a voluntary program to facilitate the exchange of detailed cybersecurity information between electric utilities, NERC's Electricity Sector-Information Sharing and Analysis Center (ES-ISAC), and the US Department of Energy to enable electric power critical infrastructure operators to better protect their networks from sophisticated cyber threats.

The company will also continue to focus on creating cybersecurity and physical security awareness through its annual GridSec conference and semiannual Grid-X national security exercise.

[^3]
## Reliability Assurance Initiative (RAI) - (ERO Enterprise Goal 3 and Metric 4)

NERC and the Regional Entities continue to improve compliance and enforcement operations by focusing oversight and resources on improving processes as well as reducing unnecessary costs and administrative burdens on registered entities. Implementing RAI remains a multiyear effort to promote efficiencies, eliminate undue regulatory burdens, streamline documentation and reporting requirements, improve noncompliance processing, and develop new tools and training materials.

The major RAI activities underway in 2014 include: (1) development of a single ERO Enterprise method for registered entity reliability risk assessments to include an evaluation and test of registered entity internal controls; (2) consolidation of the expanded scope of matters that may be processed through the Find, Fix, Track, and Report (FFT) tool and initial implementation of aggregation and discretion processes; and (3) implementation of a complete auditor manual with an approved auditor handbook and checklist. Other enforcement enhancements will continue during 2014, including the development of tools that provide greater transparency into internal ERO processes, such as the assessment of risk from noncompliance and development of mitigation activities, and process improvements associated with coordination of compliance and enforcement activities for multi-Region registered entities. The ERO Auditor Capabilities and Competencies Guide, which was completed in 2014, has been posted on the NERC website and will be a critical component of auditor staff development and training.

Based on the results and successful implementation of the 2014 RAI activities, several RAI activities are planned for 2015 and beyond: (1) development and execution of a training program to support implementation of the ERO Auditor Capabilities and Competencies Guide; (2) development and delivery of training for the single compliance approach; (3) implementation of an enterprise-wide compliance tracking tool to support RAI activities; (4) compliance activities related to the successful transition to CIP Version 5; (5) design and implementation of governance, risk, and compliance management tools to support compliance oversight planning; and (6) consolidation of new enforcement processes and activities.

The 2015 RAI activities are necessary for implementing the strategic risk-based reforms intended to reduce unnecessary regulatory burden on industry. The activities are intended to increase efficiency by aligning resources associated with compliance monitoring and enforcement programs toward greater direct reliability benefit. The bulk of these activities will be resourced from NERC and Regional Entity staffs, but certain activities related to advancing the program implementation and the compliance application tool require third-party contractor support.

## BES Implementation - (ERO Enterprise Goal 2 and Metric 4)

In 2010, FERC directed NERC to revise the BES definition to encompass all elements and facilities necessary to plan and reliably operate the BES. The revised definition becomes effective July 1, 2014, and the enterprise continues to guide the consistent evaluation of inclusions, exclusions, and self-notifications of BES elements. NERC and the Regional Entities will be engaged in activities supporting the implementation of the recent changes to the BES definition.

These implementation activities began in 2014 and will extend through 2015. They include: (1) the BES element evaluation process and associated procedures to provide a uniform, clear way of determining assets contained within the BES; (2) review of self-determined notifications by entities; (3) review of entity-submitted exceptions to the BES definition by Regions and NERC, (4) consideration of reviews and appeals of BES determinations and associated registration aspects; (5) providing guidance regarding Reliability Standard applicability; and (6) managing compliance and enforcement monitoring.

## Risk-Based Registration - (ERO Enterprise Goal 2 and Metric 4)

In 2014, NERC and the Regional Entities are developing a risk-based registration (RBR) program that ensures entities are properly registered or de-registered commensurate with risk to the BES, are properly scoped, and are responsible for applicable Reliability Standards along with associated compliance obligations. NERC's registration rules and criteria are set forth in Section 500 and Appendices 5A and 5B of the NERC Rules of Procedure. The RBR program will focus on the scope of an entity's compliance responsibilities according to the BES reliability risks it poses. With the maturation of the ERO and associated industry experience, the registration criteria are now being revisited to adjust them with a riskbased technical foundation. These adjustments are focused on avoiding unnecessarily registering all potential entities without consideration of their materiality and risks to reliability. The goal of risk-based registration is to enhance the registration criteria so they contain threshold criteria complemented by risk-based methods. This approach will be used to exclude entities with smaller and lower voltage assets that would have a very low likelihood of posing a risk to the reliability of the BPS, while at the same time adjusting the scope of Reliability Standard requirements that must be followed.

The implementation of the RBR program is expected to:

- Align entity registration and compliance burden to its materiality and risk to BES reliability;
- Reduce the industry burden associated with registration, while sustaining continued BES reliability;
- Improve use of NERC, Regional Entity, and registered entity resources;
- Provide feedback during standards development to enhance the applicability of currently enforceable and future standards; and
- Increase consistency in registration across the eight Regional Entities by developing a common and repeatable approach and improving registration and de-registration procedures.

In addition, coordination of this effort will enhance the ERO's ability to:

- Evaluate risks to reliability across the ERO Enterprise; and
- Align changes to the registry criteria with other NERC activities and the BES definition.


## Transformation of Standards to a Steady State - (ERO Enterprise Goal 1 and Metric 4)

In accordance with the approved Reliability Standards Development Plan (RSDP), the transformation of the NERC standards to a "steady state" remains a high priority. Steady state was defined in the 2014-2017 RSDP as a set of clear, concise, high-quality, and technically sound Reliability Standards that are resultsbased, including retiring requirements that do little to promote reliability. In their 2013 review of the NERC Reliability Standards, ${ }^{8}$ a panel of independent experts also found that the standards should be stable, necessary for accountability, and sufficient to maintain the reliability of the BES. A steady-state standard should not require further work absent a change in reliability risks, technology, practice, or other impetus.

[^4]
## 2015 Key Business Planning Assumptions

As part of the annual business planning process, NERC and the Regional Entities formed common business planning assumptions that they considered when developing their respective business plans and budgets. The Regional Entities used these assumptions to evaluate their projected workload and determine resource levels required to complete necessary tasks and meet the obligations of their Regional Delegation Agreements. The 2015 common business plan and budget assumptions are set forth in Exhibit A.

## Application of Section 215 Criteria

In its order approving NERC's 2013 Business Plan and Budget, FERC required NERC to establish criteria for determining whether its proposed activities are eligible for funding under Section 215. In an order dated April 19, 2013, FERC approved NERC's proposed criteria, with certain modifications. ${ }^{9}$ Exhibit B summarizes the major activities NERC proposes to undertake in 2015 and the approved Section 215 criteria applicable to such activities.

## Overview of 2015 Budget and Funding Requirements

NERC's 2015 combined expense and fixed asset (capital) budget is approximately $\$ 66.6 \mathrm{M}$, which represents an increase of approximately $\$ 10.3 \mathrm{M}$ (18.2\%) over 2014. Total expenses are increasing approximately $\$ 9.8 \mathrm{M}(17.5 \%)$ over 2014. The total fixed asset (capital) budget, before accounting for depreciation, ${ }^{10}$ is approximately $\$ 3.6 \mathrm{M}$, an increase of approximately $\$ 500 \mathrm{k}$ over 2014. Of the $\$ 10.3 \mathrm{M}$ increase in the 2015 budget over the 2014 budget, $\$ 8.9 \mathrm{M}(87.0 \%)$ is related to the Cyber Risk Information Sharing Program (CRISP). In the absence of CRISP, the 2015 budget would increase approximately \$1.3M (2.4\%) over 2014. As further explained in Section A, Electricity Sector Information Sharing and Analysis Center (ES-ISAC) on page 52 and in Exhibit F, the majority of the NERC CRISP budget will be funded by participating utilities, with only a small portion funded through assessments.

NERC's total assessments are projected to increase $\$ 3.9 \mathrm{M}$ ( $7.6 \%$ ) over 2014. Of this amount, $\$ 496.3 \mathrm{k}$ or roughly $1 \%$ percent of the total $7.7 \%$ increase is related to CRISP. The allocation of assessments to U.S., Canadian, and Mexican entities, after taking into account the application of NERC's policies regarding the allocation of United States penalty funds ${ }^{11}$ and the allocation of certain compliance and enforcement costs, ${ }^{12}$ and using 2013 net energy for load data, is $\$ 50.0 \mathrm{M}, \$ 5.1 \mathrm{M}$, and $\$ 150.4 \mathrm{k}$, respectively. The allocation of NERC and Regional Entity assessments is detailed in Appendix 2.

The following table provides a high-level year-over-year comparison of the major categories of expenses, total budget, and FTEs.

[^5]STATUTORY

Variance 2015
Budget v 2014
2014
2015
Budget
Budget $\qquad$ Over(Under)

## Funding

ERO Funding
NERC Assessments
Penalty Sanctions
Total NERC Funding
Third-Party Funding (CRISP)
Testing Fees
Services \& Software
Workshops
Interest
Miscellaneous
Total Funding (A)
Expenses
Total Personnel Expenses
Total Meeting Expenses
Total Operating Expenses
Total Direct Expenses
Indirect Expenses

| \$ | $\begin{array}{r} 51,401,382 \\ 290,000 \end{array}$ | \$ | $\begin{array}{r} 55,308,375 \\ 1,155,000 \end{array}$ | \$ | $\begin{array}{r} 3,906,993 \\ 865,000 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 51,691,382 | \$ | 56,463,375 | \$ | 4,771,993 |
|  | - |  | 8,943,589 |  | 8,943,589 |
|  | 1,620,000 |  | 1,670,000 |  | 50,000 |
|  | 50,000 |  | 50,000 |  | - |
|  | 354,000 |  | 241,300 |  | $(112,700)$ |
|  | 20,000 |  | 3,000 |  | $(17,000)$ |
|  | - |  | - |  | - |
| \$ | 53,735,382 | \$ | 67,371,264 | \$ | 13,635,882 |

Other Non-Operating Expenses
Total Expenses (B)
Change in Assets

| \$ | 34,059,654 | \$ | 35,803,312 | \$ | 1,743,658 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 3,789,525 | \$ | 3,566,146 | \$ | $(223,379)$ |
| \$ | 17,612,133 | \$ | 25,863,357 | \$ | 8,251,224 |
| \$ | 55,461,313 | \$ | 65,232,815 | \$ | 9,771,502 |
| \$ | 0 | \$ | (0) | \$ | (0) |


| \$ | 144,000 | \$ | 131,000 | \$ | $(13,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 55,605,313 | \$ | 65,363,815 | \$ | 9,758,502 |
| \$ | $(1,869,930)$ | \$ | 2,007,449 | \$ | 3,877,379 |

Fixed Assets

| Depreciation | \$ | $(2,333,006)$ | \$ | $(2,333,006)$ | \$ | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Computer \& Software CapEx |  | 2,904,790 |  | 3,253,500 |  | 348,710 |
| Equipment CapEx |  | 213,000 |  | 365,000 |  | 152,000 |
| Inc(Dec) in Fixed Assets ( $C$ ) |  | 784,784 |  | 1,285,494 |  | 500,710 |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ | 56,390,096 | \$ | 66,649,309 | \$ | 10,259,212 |
| TOTAL CHANGE IN WORKING CAPITAL (=A-B-C) ${ }^{1}$ | \$ | $(2,654,714)$ | \$ | 721,955 | \$ | 3,376,669 |
| FTEs |  | 189.5 |  | 192.3 |  | 2.8 |

[^6]NERC's 2015 budget and funding requirements reflect the resources necessary to support achievement of the goals and objectives set forth in the Strategic Plan. The 2015 budget is comprised of both operating
and capital (fixed asset) costs. Operating costs include, but are not limited to: personnel costs based on projected 2014 year-end headcount, consulting costs to support specific program area needs, contracts for office space, software licensing, third-party data management, and communications and other customary services to support office operations. Fixed Asset (capital) costs primarily reflect investments in equipment and software to support operations, including investments in the development of software applications and infrastructure to facilitate improved business processes and efficiency.

## Key Budget Assumptions

Key assumptions used in the development of NERC's 2015 budget included:

- An increase of 2.8 FTEs over 2014 to the ES-ISAC to support CRISP and provide administrative support to the ES-ISAC in connection with the physical separation of the ES-ISAC from other departments in NERC's Washington, D.C. office
- $6 \%$ adjustment to reduce budgeted FTEs to account for attrition and hiring delays
- $2.5 \%$ average salary increase pool
- Incentive compensation budget of $18.4 \%$ of base salary expense
- Market increases in medical and dental benefit plan costs

Management spends considerable efforts reviewing and reallocating personnel resources to ensure that appropriate resources are being dedicated to key priorities and activities. The 6\% across-the-board FTE adjustment (reduction) for attrition and hiring delays is based on a three-year average of actual-tobudgeted FTE data. The $2.5 \%$ average salary increase is slightly below the $3 \%$ market reference provided by the company's compensation consultant. The incentive compensation budget of $18.4 \%$ of total base salary represents a three-year average. Incentive compensation is also tied to corporate, departmental, and individual performance results. Medical and dental premium cost estimates are based on market data provided by the company's benefits consultant.

- Meeting and Travel Expense
- Forecast reduction based on review of 2013-2014 costs

The company has undertaken significant efforts over the past several years to reduce travel and meeting expenses. In 2013, NERC implemented additional policies, systems, and controls over travel expenses. The company has also worked closely with Regional Entities to share meeting space where possible, which has helped reduce meeting costs.

- Contractors and Consultants
- Developed on a department-by-department basis, taking into account existing contractual commitments and individual department requirements
- With the exception of proposed subcontract support for CRISP, applied 3\% across-theboard reduction in each department's 2015 budget to account for potential under-runs in actual contractor and consulting expense (based on historic trends), as well as to help drive lower overall spending in this area.

The following table summarizes total year-over-year contractor and consulting costs by department, which were reduced by $3 \%$ across the board as noted above.

| Consultants \& Contracts | 2014 BUDGET | 2015 BUDGET | INC (DEC) OVER 2014 |
| :---: | :---: | :---: | :---: |
| Regional Entity Assurance and Oversight | 400,000 | 388,000 | $(12,000)$ |
| Total Reliability Assessments and Performance Analysis | 638,085 | 955,450 | 317,365 |
| Total Situation Awareness | 1,289,108 | 1,077,321 | $(211,787)$ |
| Total Critical Infrastructure Department | 190,000 | 426,800 | 236,800 |
| Total ES-ISAC | 786,450 | 8,329,390 | 7,542,940 |
| Total Training, Education and Operator Certification | 848,830 | 752,130 | $(96,700)$ |
|  |  |  | - |
| Total General \& Administrative | 75,000 | 15,000 | $(60,000)$ |
| Total Information Technology | 1,944,000 | 1,729,600 | $(214,400)$ |
| Total Human Resources | 257,500 | 298,275 | 40,775 |
| Total Finance and Accounting | 400,000 | 339,500 | $(60,500)$ |
| TOTAL CONSULTANTS AND CONTRACTS | 6,828,973 | 14,311,466 | 7,482,493 |

Contractor and consulting expenses are developed on a department-by-department basis and reflect both known and anticipated expenses, based on both historic and current information. The Compliance and Registration (Regional Entity Assurance and Oversight) department budget is for consulting support for RAI implementation. Contract and consulting expenses for the Reliability Assessment and Performance Analysis program area is largely for software and services supporting reliability data management and analysis. Situation Awareness costs are primarily related to licenses and services supporting SAFNR, and other reliability information and notification (e.g., alerts) systems.

Critical Infrastructure Department expenses represent an increase over 2014 due to costs to support the biannual GridEx exercise. Other CID contractor and consulting costs are primarily to support the Critical Infrastructure Protection Committee consistent with historic experience and contract support levels. ESISAC costs are for software and services to support current operations, including the ES-ISAC portal. These costs do not include the incremental costs to participate in CRISP or to exercise an option to acquire additional space in the company's Washington, D.C. office. These items are discussed further below.

Training, Education, and Operator Certification contract and consulting costs include the cost of operator certification, training and continuing education programs, and training of NERC personnel. It also includes supporting compliance and enforcement (RAI) and other training initiatives. Policy and External Affairs costs are for Canadian policy analysis and communications training for NERC staff.

Information Technology contract and consulting support is primarily for systems and software maintenance services. Software development costs are primarily budgeted under fixed (capital) assets and are discussed further below. Human Resources contract and consulting costs are primarily for employee training, various surveys, compensation studies, and consulting services to support process improvements. Finance and Accounting costs are primarily for outside auditor services in connection with the annual financial statement audit and Form 990 preparation and filing, as well as audit and consulting services to support for the Enterprise Risk Management and Internal Control audit plan and CCC audit plan.

## ES-ISAC

- CRISP Program Participation - The CRISP program is a public-private partnership to facilitate timely sharing of cybersecurity threat information and develop situation awareness tools to enhance the electricity sector's ability to identify, prioritize, and coordinate the protection of its critical infrastructure. CRISP provides near real-time capability for critical infrastructure owners and operators to voluntarily share cybersecurity threat data, analyze the data, and receive machine-to-machine mitigation measures. Information-sharing devices that are installed on the participants' networks send encrypted data to a CRISP analysis center operated by the Pacific Northwest National Labs, which analyzes the data it receives and sends alerts and mitigation measures back to CRISP participants through a secure network. There is significant industry interest in CRISP.

NERC believes there is merit and broad stakeholder benefit from having NERC assume the role of program manager for CRISP through the ES-ISAC. As program manager, the ES-ISAC will have access to additional detailed cybersecurity threat information that it can analyze and share (without attribution and in appropriate declassified format) with ES-ISAC registered users. NERC's participation in CRISP is subject to receipt of allnecessary corporate and regulatory budget approvals. Additional detailed information regarding CRISP is set forth in Section A, Electricity Sector Information Sharing and Analysis Cener on page 52 and Exhibit F.

- Physical Separation of ES-ISAC Personnel - In February 2012, the Board approved an ES-ISAC Policy Statement that established a separation between the ES-ISAC and NERC's compliance and enforcement program. As a result, in June 2013 NERC requested comments from stakeholders regarding the impact, on NERC's compliance-related activities, of the walling off of certain staff from ES-ISAC activities. In response to the request for comments, stakeholders generally expressed support for this policy. ${ }^{13}$ Numerous commenters recommended even stronger separation of the ES-ISAC information-sharing function from NERC's compliance and enforcement function. This would include, but not be limited to, physical separation of ES-ISAC personnel from other NERC personnel, coupled with strong process management and explicit access restrictions from all NERC personnel. Commenters also recommended that NERC adopt standards of conduct and procedures similar to those governing the separation of utility merchant and transmission functions, as well as a change in management reporting structure in which the ES-ISAC would report directly to the NERC president and chief executive officer. In consideration of this input, NERC management:
- Separated the ES-ISAC from the Critical Infrastructure Department, with the ES-ISAC and chief security officer now reporting directly to NERC's president and chief executive officer.
- Transferred Critical Infrastructure Department auditors to the Regional Entity Assurance and Oversight Department that provides oversight of Regional Entity compliance

[^7]functions. In addition to removing these auditors from the same department as the ESISAC personnel, this transfer provides better functional alignment of auditors and more effective management of the compliance oversight and assurance audit function.

- Put into place a formal employee code of conduct to further memorialize the existing separation of the ES-ISAC from compliance and enforcement personnel. The code of conduct contains many of the principals incorporated in codes of conduct separating utility competitive and regulated operations.
- Subject to approval of its 2015 business plan and budget and the receipt of other necessary corporate authorizations, management plans to exercise an option to acquire additional space in the company's Washington, D.C. office to physically separate the ESISAC from the company's other operations and restrict personnel access between operating areas and the ES-ISAC. Exercise of the option would allow the company to lease the remaining space, consisting of approximately 6,200 rentable square feet on the $6^{\text {th }}$ floor, where the company's offices are now located. The lease provides that the rent for the option space will be based on the "prevailing market." The projected annual cost of leasing the space at a lease rate equivalent to rate per square foot for the company's existing space of approximately $\$ 50$ per square foot will add approximately $\$ 300 \mathrm{k}$ to the budget, assuming negotiation of a reasonable build-out allowance. Estimated incremental operating costs will add an additional $\$ 5 \mathrm{k}$ in annual costs to the budget.
- The ES-ISAC currently relies on administrative support from other departments in the Washington, D.C. office. As noted above, management is proposing to add 0.9 FTE to provide dedicated administrative support to ES-ISAC personnel. This FTE will be physically located in the ES-ISAC office space which will be separated from other operating areas.


## Fixed Asset (Capital) Budget and Capital Financing

NERC's 2015 capital budget is approximately $\$ 3.6 \mathrm{M}$, which represents an increase of approximately $\$ 500 \mathrm{k}$ over 2014. The table below provides a summary of the major capital budget components.

NERC 2015 CAPITAL BUDGET

| Computer \& Software CapEx |  |  |
| :---: | :---: | :---: |
| ERO Application Development |  | 1,050,000 |
| ERO Data Analysis Tools |  | 550,000 |
| Generation Data Software |  | 200,000 |
| Hardware |  | 100,000 |
|  | \$ | 1,900,000 |
| IT Hardware and Software |  |  |
| Disaster Recovery |  | 250,000 |
| Data Storage |  | 425,000 |
| Replacement servers |  | 202,000 |
| NERC Software licenses |  | 350,500 |
| Replacement laptops |  | 126,000 |
| Total Computer \& Software CapEx | \$ | 1,353,500 |
| Equipment CapEx |  |  |
| Replacement network devices | \$ | 365,000 |
| pital Budget | \$ | 3,618,500 |

NERC has budgeted $1.7 \mathrm{M}^{14}$ in 2015 for services related to the planning, design, and implementation of software applications supporting common NERC and Regional Entity operations. Senior management of NERC and the Regional Entities have refined and updated the ERO Enterprise's long-term IT architecture and data management plans and the specific applications that will be under development in 2015 . Further detail regarding updates to the Enterprise IT Strategy; the current status of the development of Enterprise IT applications; applications that will be under development in 2015 and steps that are being taken to improve its oversight of the identification, development and execution of Enterprise IT applications may be found under the Information Technology Department section on page 73 . The proposed $\$ 1.7 \mathrm{M}$ budget represents a reduction in the forecast 2015 enterprise application development budget presented in NERC's 2014 Business Plan and Budget. The 2015 capital budget also includes \$200k for development of a replacement software application for a legacy application called PC-GAR, which is used by industry to access information from the Generation Analysis Data System (GADS) database, as well as \$100k for hardware to support ERO applications. Further information regarding the ERO Enterprise application development budget is contained in Section A, Information Technology department. NERC's 2015 capital budget also includes funding for development of a disaster recovery plan, data storage, replacement of servers and laptops, and software license costs.

The 2015 budget projection assumes that $\$ 1.9 \mathrm{M}$ of the total $\$ 3.6 \mathrm{M}$ capital budget will be financed as part of the capital financing program that was described and authorized as part of the 2014 Business Plan and Budget. Further information regarding capital financing may be found in Exhibit D.

## Working Capital and Operating Reserves

Management is proposing a budget of $\$ 6.3 \mathrm{M}$ for working capital and operating reserves, which represents an increase of $\$ 772.7 \mathrm{k}$ from 2014. Working capital reserves, (i.e., funds reserved for future liabilities), are budgeted at $\$ 3.2 \mathrm{M}$, which is a reduction of $\$ 322.2 \mathrm{k}$ compared to 2014 . Befor accounting for third party funded CRISP reserves, the total combined budget for known and unforeseen contingencies is $\$ 2 \mathrm{M}$, which is consistent with the 2014 budget. ${ }^{15}$ However, unlike in the case of the 2014 budget, the entire amount is being budgeted for Unforeseen Contingencies. The operating reserve budget for the System Operator Certification Program is $\$ 591 \mathrm{k}$, reflecting the planned use of $\$ 405 \mathrm{k}$ of program reserves to support budgeted costs in excess of funding. \$500k in additional reserves for CRISP has also been added to reserves, with these additional reserves funded entirely by utilities participating in CRISP and segregated from other reserves pursuant to the terms of the CRISP agreements. Further information regarding working capital and operating reserves may be found in Exhibit E .

NERC senior management will be working with the senior management of the Regional Entities, the NERC Finance and Audit Committee, and the Board to develop additional long-term working capital and operating reserve policy guidance with the goal of mitigating large year-to-year swings in assessments. As always, NERC will also seek input from stakeholders in the development of this guidance and any associated policies.

[^8]
## Department Budget and FTE Comparisons

The following tables set forth a 2014-2015 total budget (operating expenses plus fixed assets minus depreciation) comparison by department, followed by a bar chart comparison of funding by department. As further detailed in Section A, total indirect expenses and fixed asset costs allocated to the statutory departments and included in the total 2014 and 2015 budgets reflected below are approximately 10.4\% higher in 2015 due to the (1) reallocation of personnel to support NERC and stakeholder committees, and (2) transfer of the budget for development of ERO software applications to the IT department. Since these applications benefit multiple departments, they should be allocated similarly to other IT expenditures.

The increase in Compliance Analysis, Certification and Registration department costs is primarily due to the transfer of two positions to this department as part of the internal reorganization described above. The increase in the Reliability Assessment and Performance Analysis department budget is due to reallocation of resources to that department to further support risk assessment activities. The increase in the Training, Education and Operator Certification and Event Analysis budgets is generally due to an increase in the indirect expense and fixed asset allocations, as explained above. The increase in the Training, Education and Operator Certification budget was partially offset by lower contractor and consulting expenses. The reduction in the Situation Awareness department budget is due to reductions in contractor and consulting expense and capitalized software costs. The reduction in the Critical Infrastructure Department budget is primarily due to the transfer of personnel to the Regional Entity Assurance and Oversight department and the transfer of a position to the ES-ISAC. The ES-ISAC budget reflects the addition of an administrative FTEand includes the additional projected costs of CRISP participation discussed above. Exhibit F includes a comparison of the 2014 and 2015 ES-ISAC budgets with and without CRISP.

## 2014-2015 Total Budget by Department

| Total Budget | $\begin{gathered} \text { Budget } \\ 2014 \end{gathered}$ | $\begin{gathered} \text { Budget } \\ 2015 \end{gathered}$ | Change 2015 Budget v 2014 Budget | \% Change |
| :---: | :---: | :---: | :---: | :---: |
| Reliability Standards | 10,167,369 | 10,247,145 | 79,776 | 0.8\% |
| Compliance Analysis, Certificaton and Registration | 3,784,438 | 4,864,863 | 1,080,425 | 28.5\% |
| Regional Entity Assurance and Oversight | 5,712,007 | 5,737,572 | 25,564 | 0.4\% |
| Compliance Enforcement | 6,395,091 | 5,806,866 | $(588,225)$ | -9.2\% |
| Reliability Assessments and Performance Analysis | 8,350,598 | 9,825,750 | 1,475,151 | 17.7\% |
| Training, Education and Operator Certification | 3,737,472 | 3,950,926 | 213,454 | 5.7\% |
| Reliability Risk Management |  |  |  |  |
| Event Analysis | 4,048,371 | 4,203,169 | 154,798 | 3.8\% |
| Situation Awareness | 4,583,264 | 3,646,902 | $(936,363)$ | -20.4\% |
| Critical Infrastructure Department* | 5,507,708 | 4,495,972 | $(1,011,736)$ | -18.4\% |
| ES-ISAC* | 4,103,777 | 13,870,144 | 9,766,367 | 238.0\% |
| Total Budget | 56,390,096 | 66,649,309 | 10,259,213 | 18.2\% |

[^9]2014 - 2015 Funding Requirement by Department


The following table presents a year-over-year comparison of FTEs by department and reflects 2014 personnel additions and interdepartmental transfers, attrition assumptions, and proposed 2015 personnel additions. It is followed by a statement of activities comparing the 2014 budget and the proposed 2015 budget.

The increase in FTEs in the General and Administrative area is due to a reallocation of personnel supporting the Member Representatives Committee and Regional Entity Management Group activities. The addition of FTEs in the Information Technology area reflects the addition of a Chief Information Officer and project management support to further IT strategy development and execution. The increase in the Finance and Accounting area reflects the addition of staff in 2014 to support the Risk Management and Internal Controls function, as well as the addition of an accounting position to further strengthen segregation of duties, cross training, and back-up functions.

2014-2015 Year-over-Year Comparison of FTEs by Department

| Total FTE's by Program Area | Budget <br> 2014 | Budget 2015 | Change from 2014 Budget | \% Change <br> from 2014 |
| :---: | :---: | :---: | :---: | :---: |
| STATUTORY |  |  |  |  |
| Operational Programs |  |  |  |  |
| Reliability Standards | 25.92 | 24.40 | (1.5) | -5.9\% |
| Compliance Analysis, Certification and Registration | 9.60 | 11.25 | 1.7 | 17.2\% |
| Regional Entity Assurance and Oversight | 13.44 | 12.19 | (1.3) | 100.0\% |
| Compliance Enforcement | 18.24 | 15.01 | (3.2) | -17.7\% |
| Reliability Assessments and Performance Analysis | 18.99 | 19.70 | 0.7 | 3.7\% |
| Training, Education and Operator Certification | 8.16 | 7.97 | (0.2) | -2.3\% |
| Event Analysis | 9.60 | 9.38 | (0.2) | -2.3\% |
| Situation Awareness | 6.24 | 6.10 | (0.1) | -2.2\% |
| Critical Infrastructure Department | 12.48 | 8.44 | (4.0) | -32.4\% |
| ES-ISAC | 7.72 | 10.32 | 2.6 | 33.7\% |
| Total FTEs Operational Programs | 130.39 | 124.76 | (5.6) | -4.3\% |
| Administrative Programs |  |  |  |  |
| General \& Administrative | 10.56 | 13.13 | 2.6 | 24.3\% |
| Legal and Regulatory | 15.15 | 15.01 | (0.1) | -0.9\% |
| Information Technology | 18.07 | 19.70 | 1.6 | 9.0\% |
| Human Resources | 2.88 | 2.81 | (0.1) | -2.4\% |
| Finance and Accounting | 12.48 | 16.89 | 4.4 | 35.3\% |
| Total FTEs Administrative Programs | 59.14 | 67.54 | 8.4 | 14.2\% |
| Total FTEs | 189.50 | 192.30 | 2.8 | 1.5\% |

The NERC 2015 organizational chart can be found in Appendix 1.

## Statement of Activities and Fixed Assets Expenditures 2014 and 2015 Budgets

 STATUTORY

[^10]
## Projections for 2016-2017

Management has developed preliminary operating and fixed asset (capital) budget projections for 2016 and 2017. The significant assumptions considered in preparing these projections include:

- No increase in the total FTEs over 2015 budgeted FTEs
- Personnel and benefit cost increases consistent with the 2015 budget assumptions
- No increase in contractor and consulting expense above 2015 budget levels with the exception of contract support for GridEx III in 2016
- Debt service repayment obligations in connection with the company's Capital Financing Program consistent with the projected Enterprise IT Applications capital forecast
- No increase in CRISP related expenditures, except for personnel and benefit cost increases as noted above

The 2016 and 2017 total budget is projected to increase $\$ 1.2 \mathrm{M}$ each year, or $1.8 \%$ and $1.7 \%$, over 2015 and 2016, respectively. Average assessments are projected to increase $\$ 2.8 \mathrm{M}$ and $\$ 227.3 \mathrm{k}$ or $5.2 \%$ and $0.4 \%$ over 2015 and 2016, respectively. The projected increase in 2016 is primarily driven by the loss of $\$ 1.2 \mathrm{M}$ in penalty funding and the $\$ 1.2 \mathrm{M}$ increase in Total Budget.

| Statement of Activities and Fixed Assets Expenditures 2015 Budget \& Projected 2016 and 2017 Budgets |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $2015$ <br> Budget |  | $2016$ <br> rojection |  | Change $16 \text { v } 15$ | $\begin{gathered} \text { \% Change } \\ 16 \text { v } 15 \end{gathered}$ |  | $2017$ <br> rojection |  | \$ Change 17 v 16 | $\begin{gathered} \text { \% Change } \\ 17 \text { v } 16 \\ \hline \end{gathered}$ |
| Funding |  |  |  |  |  |  |  |  |  |  |  |  |
| ERO Funding |  |  |  |  |  |  |  |  |  |  |  |  |
| NERC Asses sments | \$ | 55,308,375 | \$ | 58,189,615 | \$ | 2,881,240 | 5.21\% | \$ | 58,416,933 | \$ | 227,318 | 0.4\% |
| Penalty Sanctions |  | 1,155,000 |  | - |  | $(1,155,000)$ | -100.00\% |  | - |  | - |  |
| Total NERC Funding | \$ | 56,463,375 | \$ | 58,189,615 | \$ | 1,726,240 | 3.1\% | \$ | 58,416,933 | \$ | 227,318 | 0.4\% |
| Third-Party Funding (CRISP) |  | 8,943,589 |  | 8,233,470 |  | $(710,119)$ | -7.94\% |  | 8,243,076 |  | 9,606 | 0.1\% |
| Testing Fees |  | 1,670,000 |  | 1,670,000 |  | - | 0.00\% |  | 1,670,000 |  | - | 0.0\% |
| Services \& Software |  | 50,000 |  | 50,000 |  | - | 0.00\% |  | 50,000 |  | - | 0.0\% |
| Workshops |  | 241,300 |  | 241,300 |  | - | 0.00\% |  | 241,300 |  | - | 0.0\% |
| Interest |  | 3,000 |  | 3,271 |  | 271 | 9.02\% |  | 3,000 |  | (271) | -8.3\% |
| Miscellaneous |  | - |  |  |  | - |  |  |  |  | - |  |
| Total Funding (A) | \$ | 67,371,264 | \$ | 68,387,655 | \$ | 1,016,391 | 1.5\% | \$ | 68,624,309 | \$ | 236,654 | 0.3\% |
| Expenses |  |  |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 27,580,677 | \$ | 28,264,569 | \$ | 683,892 | 2.5\% | \$ | 28,965,558 | \$ | 700,989 | 2.5\% |
| Payroll Taxes |  | 1,673,628 |  | 1,700,161 |  | 26,533 | 1.6\% |  | 1,726,212 |  | 26,050 | 1.5\% |
| Benefits |  | 3,547,178 |  | 3,895,169 |  | 347,992 | 9.8\% |  | 4,158,206 |  | 263,037 | 6.8\% |
| Retirement Costs |  | 3,001,829 |  | 3,088,546 |  | 86,717 | 2.9\% |  | 3,167,455 |  | 78,909 | 2.6\% |
| Total Personnel Expenses | \$ | 35,803,312 | \$ | 36,948,446 | \$ | 1,145,134 | 3.2\% | \$ | 38,017,431 | \$ | 1,068,985 | 2.9\% |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 1,050,000 | \$ | 1,050,000 | \$ | - | 0.0\% | \$ | 1,050,000 |  | - | 0.0\% |
| Travel |  | 2,203,395 |  | 2,203,395 |  | - | 0.0\% |  | 2,203,395 |  | - | 0.0\% |
| Conference Calls |  | 312,751 |  | 312,751 |  | - | 0.0\% |  | 312,751 |  | - | 0.0\% |
| Total Meeting Expenses | \$ | 3,566,146 | \$ | 3,566,146 | \$ | - | 0.0\% | \$ | 3,566,146 | \$ | - | 0.0\% |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | 14,311,466 |  | 14,533,113 |  | 221,647 | 1.5\% |  | 14,558,544 |  | 25,431 | 0.2\% |
| Office Rent |  | 2,987,777 |  | 2,987,777 |  | - | 0.0\% |  | 2,895,148 |  | $(92,629)$ | -3.1\% |
| Office Costs |  | 3,583,328 |  | 3,583,328 |  | - | 0.0\% |  | 3,583,328 |  | - | 0.0\% |
| Professional Services |  | 2,611,280 |  | 2,436,348 |  | $(174,932)$ | -6.7\% |  | 2,436,348 |  | - | 0.0\% |
| Miscellaneous |  | 36,500 |  | 36,500 |  | - | 0.0\% |  | 36,500 |  | - | 0.0\% |
| Depreciation |  | 2,333,006 |  | 1,056,592 |  | $(1,276,415)$ | -54.7\% |  | 517,374 |  | $(539,218)$ | -51.0\% |
| Total Operating Expenses | \$ | 25,863,357 | \$ | 24,633,658 | \$ | $(1,229,699)$ | -4.8\% | \$ | 24,027,242 | \$ | $(606,416)$ | -2.5\% |
| Total Direct Expenses | \$ | 65,232,815 | \$ | 65,148,250 | \$ | $(84,565)$ | -0.1\% | \$ | 65,610,819 | \$ | 462,569 | 0.7\% |
| Indirect Expenses | \$ | - | \$ | - |  |  |  | \$ | - | \$ | - |  |
| Other Non-Operating Expenses | \$ | 131,000 | \$ | 203,000 | \$ | 72,000 | 55.0\% |  | 163,000 |  | $(40,000)$ | -19.7\% |
| Total Expenses (B) | \$ | 65,363,815 | \$ | 65,351,250 | \$ | $(12,565)$ | 0.0\% | \$ | 65,773,819 |  | 422,569 | 0.6\% |
| Change in Assets | \$ | 2,007,449 | \$ | 3,036,405 | \$ | 1,028,956 | 51.3\% | \$ | 2,850,490 | \$ | $(185,915)$ | $\underline{-6.1 \%}$ |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |  |  |
| Depreciation | \$ | $(2,333,006)$ | \$ | $(1,056,592)$ | \$ | 1,276,415 | -54.7\% | \$ | $(517,374)$ | \$ | 539,218 | -51.0\% |
| Computer \& Software CapEx |  | 3,253,500 |  | 2,920,500 |  | $(333,000)$ | -10.2\% |  | 3,192,000 |  | 271,500 | 9.3\% |
| Furniture \& Fixtures CapEx |  | - |  | - |  | - |  |  | - |  | - |  |
| Equipment CapEx |  | 365,000 |  | 645,500 |  | 280,500 | 76.8\% |  | 583,000 |  | $(62,500)$ | -9.7\% |
| Leasehold Improvements |  | - |  | - |  | - |  |  | - |  | - |  |
| Allocation of Fixed Assets |  |  |  |  |  |  |  |  |  |  |  |  |
| $\operatorname{lnc}(\mathrm{Dec})$ in Fixed Assets ( C ) | \$ | 1,285,494 | \$ | 2,509,408 | \$ | 1,223,915 | 95.2\% | \$ | 3,257,626 | \$ | 748,218 | 29.8\% |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ | 66,649,309 | \$ | 67,860,658 | \$ | 1,211,349 | 1.8\% | \$ | 69,031,445 | \$ | 1,170,787 | 1.7\% |
| FTEs |  | 192.30 |  | 192.30 |  | - |  |  | 192.30 |  | - |  |

## Section A - 2015 Business Plan and Budget Program Area and Department Detail

## Reliability Standards

| Reliability Standards Program (in whole dollars) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 Budget |  | 2015 Budget |  | Increase <br> (Decrease) |  |
| Total FTEs |  | 25.92 |  | 24.40 |  | (1.52) |
| Direct Expenses | \$ | 5,150,854 | \$ | 4,800,751 | \$ | $(350,103)$ |
| Indirect Expenses | \$ | 4,872,999 | \$ | 5,139,603 | \$ | 266,604 |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - |
| Inc(Dec) in Fixed Assets | \$ | 143,517 | \$ | 306,791 | \$ | 163,274 |
| TOTAL BUDGET | \$ | 10,167,369 | \$ | 10,247,145 | \$ | 79,775 |

## Background and Scope

The Reliability Standards program carries out the ERO's statutory responsibility to develop, adopt, obtain approval of, and modify as and when appropriate, mandatory Reliability Standards (both continent-wide standards and regional reliability standards) for the reliable planning, operation, and critical infrastructure protection of the North American BES. The major activities undertaken by the Standards department include:

- Delivering high-quality, continent-wide Reliability Standards: NERC standards developers and other standards staff provide project management and leadership to develop solutions necessary to address reliability risks identified through the Reliability Risk Management Process (RRMP). These may include the development of or modifications to NERC Reliability Standards through standard development outreach activities, facilitation of drafting team activities, drafting support, assisting drafting teams in maintaining adherence to the development process as outlined in the Standard Processes Manual, and ensuring that the quality of documents produced are appropriate for approval by industry and the Board.
- Facilitating continent-wide industry engagement: NERC manages the work of over 200 industry contributors who serve on the Standards Committee, subgroups and other project teams for the development of NERC standards through the standards development program.
- Conducting balloting, disseminating information, and supporting regulatory filings: Through NERC's commenting and ANSI-accredited balloting process, industry consensus is built by engaging thousands of industry volunteers within hundreds of registered entities throughout North America who review, comment on, and approve the standards products created by the standard drafting teams. The department also supports the filing of standards with regulatory authorities and provides support in connection with regulatory proceedings.


#### Abstract

The standards program also provides a mechanism for the eight Regional Entities to process regional standards when unique regional reliability gaps are detected. The NERC Standards department staff supports regional standards development processes by providing technical advice, final quality review of regional standards, presentation to the Board, and preparation of regional standards materials for submission for standard adoption to the applicable regulatory authorities in the United States and Canada.


## Stakeholder Engagement and Cost-Effective Analysis Project

As part of the standard development process, industry technical experts scope, draft, and review the new or revised NERC Reliability Standards for approval by the industry ballot body, adoption by the Board, and filing with regulatory authorities in the United States and Canada. Additionally, stakeholders continue to pilot methods to address the cost-effectiveness of proposed standards.

The two-phased Cost-Effective Analysis Process (CEAP) attempts to ensure that the standards development process produces standards that cost-effectively address reliability gaps. The first phase of the CEAP is implemented during the Standards Authorization Request (SAR) stage to determine the cost impact of a proposed standard and whether it will meet or exceed an adequate level of reliability. The second phase is completed later in the standard development process to determine cost-effectiveness of the proposed approach and offer industry an opportunity to identify more cost-efficient solutions. A team comprised of the NERC Standards Committee and Standards Committee Process Subcommittee members, along with industry and NERC staff, continues to participate in the CEAP to promote information sharing and consensus and alleviate concerns regarding cost and effectiveness.

## Key Standards Efforts Underway in 2014

## Emerging Issues

In 2014, the Standards department continues to address "emerging issues" projects that either (1) have been identified through the RRMP; (2) respond to FERC orders and directives; or (3) are being addressed in an ongoing project. Two projects have been identified as key reliability issues through the RISC and the RRMP: (1) the Misoperations Reliability Standard, ${ }^{16}$ and (2) the Real-Time Reliability Monitoring and Analysis Standard, ${ }^{17}$ which is being included in the TOP/IRO Revision standard development project and which will provide specific requirements for real-time reliability monitoring and analysis capabilities. A number of FERC-responsive projects that were initiated in 2014 are anticipated to be completed by yearend. Among these are directives associated with CIP Version 5, Physical Security, the TOP/IRO Revisions, and the Geomagnetic Disturbance Mitigation Stage 2 Reliability Standards.

## FERC Directives

NERC also continues to address other projects as necessary to respond to FERC directives. The number of outstanding FERC directives has been reduced to 122 as of March 1, 2014, which includes 18 directives that must be addressed by another NERC department or one of the NERC technical committees. Of the 104 directives that are standards-related, 35 were issued by FERC in 2013 or 2014, leaving 69 preDecember 2012 FERC directives to be resolved. The 2014-2017 RSDP provided a plan for $90 \%$ of the directives issued prior to 2013 to be completed in 2014. In total, $70 \%$ of all directives issued to date are on track to be completed in 2014, leaving approximately 30 directives to be resolved in 2015 and beyond. The 2015-2018 RSDP, which is being developed in the first half of 2014, will outline projects that address these remaining directives.

[^11]
## Cross-Departmental and Collaborative Projects

The Standards department is also addressing several other projects that involve multiple internal NERC departments and Regional Entities:

- Risk-Based Registration: The Risk-Based Registration project (see Compliance Monitoring and Enforcement and Organization Registration and Certification section for additional detail) involves the examination of registration criteria using a consistent and common approach to risk assessment and registration across the ERO Enterprise to ensure the right entities are subject to the right set of applicable Reliability Standards. This project involves the Regional Entities, stakeholders, and multiple departments within NERC. The project team is targeting approval of the program design and implementation plan for the November 2014 NERC Board meeting.
- Concurrent development of Reliability Standard Audit Worksheets (RSAWs) with standards: This project was initiated to ensure that compliance monitoring was consistent with the intent of standards. While the RSAW is merely a tool to assist auditors, this project has provided a useful vehicle to communicate the intent of standards projects to compliance and enforcement staffs, and also provide transparency for compliance monitoring to industry stakeholders.
- Cross-departmental technical analysis and verification of solutions: The Standards department is working with the Reliability Assessment and Performance Analysis department, Events Analysis department personnel, the RISC, and the technical committees to conduct the technical analysis needed as a foundation for standards projects.
- Verification of Risk Evaluation with the RISC prior to initiating projects: In 2014, the Standards department is taking all newly identified reliability risks to the RISC for verification prior to initiating a standards project. As an example, the Standards department requested that RISC examine three of the Independent Expert Review Panels' (IERPs') High-Priority Gaps prior to considering solutions. The RISC is conducting its evaluation in conjunction with the Operating Committee.


## Steady State Transformation

In 2014, the transformation of the NERC Reliability Standards to a "steady state" continues, pursuant to the 2014-2017 RSDP. Steady state was defined in the 2014-2017 RSDP as a set of clear, concise, highquality, and technically sound Reliability Standards that are results-based, including retirement of requirements that do little to promote reliability. In their 2013 review of the NERC Reliability Standards, the IERP also found that Reliability Standards should be stable, necessary for accountability, and sufficient to maintain BES reliability. A steady-state standard should not require further work absent a change in reliability risks, technology, practice, or other impetus.

As part of the steady-state transformation, two early initiatives continue to be implemented in 2014 and beyond to ensure standards address reliability risks and to eliminate standards or requirements that do not significantly benefit reliability. These include:

- Paragraph 81 Initiative: On March 15, 2012, FERC issued an order on NERC's Find, Fix, Track and Report (FFT) program. In the order, NERC was invited to make a proposal to FERC identifying specific standards or requirements that needed to be revised or retired because of the lack of any meaningful benefit to BES reliability. FERC approved NERC's proposed Phase 1 requirements in FERC Order 788, and NERC is evaluating additional candidates that were submitted by industry for Phase 2.
- Results-Based Standards Initiative: This initiative ensures that standards are focused on required actions or results (the "what"), and not necessarily on the methods by which to accomplish those actions or results (the "how"). NERC continues to evaluate the appropriate level for the required actions or results on a requirement-by-requirement basis.

These two initiatives, plus the requirements that were recommended for retirement by the independent experts, are being considered by the subject matter experts within each standards development project as part of the transformation to steady state. It is expected that these initiatives will ensure that standards have the necessary combination of risk-, performance-, and capability-based requirements to ensure BES reliability.

## 2015 Goals and Deliverables

In 2015, the NERC Standards department's major initiatives will be focused on ensuring that the Reliability Standards Development Plan is effectively executed and that Reliability Standards appropriately mitigate risks to reliability. Department resources will be focused on supporting the Strategic Plan, including but not limited to support of the RRMP, resolving FERC directives, and transforming the NERC Reliability Standards to steady state. The Standards department will:

1. Focus on the selection of projects undertaken. Resources will be expended on issues determined to be a reliability risk through the RRMP (see Reliability Assessment and Performance Analysis section for additional detail). The department will apply broader project management skills to implement a variety of solutions to a reliability concern. An effective solution to an identified reliability risk may be a Reliability Standard, or it may be a guideline, information request, training, NERC Alert(s), technical conference, research, or a combination of these or other tools.
2. Address FERC directives and respond to FERC orders through standards development projects, as necessary. Each project will determine whether: (1) the directive will be complied with as issued, (2) there is an equally effective and efficient way to address the concern that fostered the directive, or (3) if there is technical justification (including that the directive has been overcome by events, processes, or advances in technology) that the directive is no longer needed.
3. Transform NERC's standards to steady state. The department will complete the majority of its foundational transformation work by addressing possible outstanding Paragraph 81 Phase 2 requirement candidates and IERP recommendations for retirement.
4. Improve the quality and content of standards to determine whether a Reliability Standard is of sufficient content and quality to be deemed steady state. Beginning in 2015, each standard family that is not considered steady state will receive a periodic review to determine modifications necessary for the standard to meet the steady-state criteria.
5. Facilitate smooth transition to new standards such as CIP Version 5 and Physical Security. This includes working with the Compliance Monitoring and Enforcement, Registration, and Reliability Assessment and Performance Analysis Programs to develop guidelines, webinars, and other activities to support auditor and industry training for the new standards.

The 2015-2018 RSDP is being developed during the first half of 2014 in conjunction with the Standards Committee, RISC, and RRMP. It will outline the continued work plan for the transformation of NERC Reliability Standards, the Standards department's support of Reliability Risk Management, and resolution of FERC directives.

## Resource Requirements

## Personnel

As in prior years, industry engagement is vital to successful standards development. In 2015, industry subject matter expert engagement requirements will remain steady as the remaining projects from 2014 are finalized in 2015. The transformation of NERC standards to steady state will require additional industry engagement throughout 2015.

The NERC Standards department continues to focus resources on the production of standards, rather than solely on the monitoring and execution of the standards process. For 2015, no additional personnel resources are planned. Additionally, the departmental travel expenses are expected to be below 2014 levels, given the number of standards initiatives expected to be in process, coupled with cost savings resulting from holding more meetings at NERC's Atlanta and Washington, D.C. offices.

## Contractors and Consultants

No contractor and consulting support is budgeted in 2015, which is consistent with the 2014 budget.

| Statement of Activities and Fixed Assets Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RELIABILITY STANDARDS |  |  |  |  |  |  |  |  |  |
|  | $2014$ <br> Budget |  | $2014$ <br> Projection |  | riance <br> rojection <br> 4 Budget <br> (Under) |  | $\begin{gathered} 2015 \\ \text { Budget } \\ \hline \end{gathered}$ |  | iance <br> Budget <br> Budget <br> Under) |
| Funding ERO Funding |  |  |  |  |  |  |  |  |  |
| NERC Assessments | \$ 10,000,443 | \$ | 10,000,443 | \$ | 0 | \$ | 9,911,464 | \$ | $(88,979)$ |
| Penalty Sanctions | 58,951 |  | 58,951 |  |  |  | 231,095 |  | 172,144 |
| Total NERC Funding | \$ 10,059,394 | \$ | 10,059,394 | \$ | 0 | \$ | 10,142,558 | \$ | 83,165 |
| Third-Party Funding | - |  | - |  | - |  | - |  | - |
| Testing Fees | - |  | - |  | - |  | - |  | - |
| Services \& Software | - |  | - |  | - |  | - |  | - |
| Workshops | 104,000 |  | 104,000 |  | - |  | 104,000 |  | - |
| Interest | 3,976 |  | 522 |  | $(3,454)$ |  | 587 |  | $(3,389)$ |
| Miscellaneous | - |  | - |  | - |  | - |  | - |
| Total Funding (A) | \$ 10,167,369 | \$ | 10,163,916 | \$ | $(3,454)$ | \$ | 10,247,145 | \$ | 79,776 |
| Expenses |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |
| Salaries | \$ 3,308,688 | \$ | 3,077,815 | \$ | $(230,873)$ | \$ | 3,082,972 | \$ | $(225,716)$ |
| Payroll Taxes | 210,130 |  | 220,023 |  | 9,893 |  | 202,258 |  | $(7,872)$ |
| Benefits | 454,850 |  | 412,948 |  | $(41,902)$ |  | 441,383 |  | $(13,467)$ |
| Retirement Costs | 377,588 |  | 320,130 |  | $(57,458)$ |  | 346,269 |  | $(31,319)$ |
| Total Personnel Expenses | \$ 4,351,256 | \$ | 4,030,916 | \$ | $(320,340)$ | \$ | 4,072,883 | \$ | $(278,373)$ |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |
| Meetings | \$ 185,000 | \$ | 200,000 | \$ | 15,000 | \$ | 194,056 | \$ | 9,056 |
| Travel | 400,000 |  | 332,684 |  | $(67,316)$ |  | 339,300 |  | $(60,700)$ |
| Conference Calls | 123,748 |  | 135,000 |  | 11,252 |  | 117,736 |  | $(6,012)$ |
| Total Meeting Expenses | \$ 708,748 | \$ | 667,684 | \$ | $(41,064)$ | \$ | 651,092 | \$ | $(57,656)$ |
| Operating Expenses |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | \$ | - | \$ | - | \$ | - | \$ | - |
| Office Rent | - |  | - |  | - |  | - |  | - |
| Office Costs | 90,350 |  | 68,621 |  | $(21,729)$ |  | 76,276 |  | $(14,074)$ |
| Professional Services | - |  | - |  | - |  | - |  | - |
| Miscellaneous | 500 |  | 1,000 |  | 500 |  | 500 |  | - |
| Depreciation | - |  | 3,245 |  | 3,245 |  | - |  | - |
| Total Operating Expenses | \$ 90,850 | \$ | 72,866 | \$ | $(17,984)$ | \$ | 76,776 | \$ | $(14,074)$ |
| Total Direct Expenses | \$ 5,150,854 | \$ | 4,771,466 | \$ | $(379,387)$ | \$ | 4,800,751 | \$ | $(350,103)$ |
| Indirect Expenses | \$ 4,872,999 | \$ | 5,382,700 | \$ | 509,701 | \$ | 5,139,603 | \$ | 266,604 |
| Other Non-Operating Expenses | \$ - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total Expenses (B) | \$ 10,023,853 | \$ | 10,154,167 | \$ | 130,314 | \$ | 9,940,354 | \$ | $(83,499)$ |
| Change in Assets | \$ 143,517 | \$ | 9,749 | \$ | $(133,768)$ | \$ | 306,791 | \$ | 163,274 |
| Fixed Assets |  |  |  |  |  |  |  |  |  |
| Depreciation | \$ | \$ | $(3,245)$ | \$ | $(3,245)$ | \$ | - | \$ | - |
| Computer \& Software CapEx | - |  | 516,734 |  | 516,734 |  | - |  | - |
| Furniture \& Fixtures CapEx | - |  | - |  | - |  | - |  | - |
| Equipment CapEx | - |  | - |  | - |  | - |  | - |
| Leasehold Improvements | - |  | - |  | - |  | - |  | - |
| Allocation of Fixed Assets | \$ 143,517 |  | 48,920 |  | $(94,597)$ |  | 306,791 |  | 163,274 |
| Inc(Dec) in Fixed Assets ( C ) | 143,517 |  | 562,409 |  | 418,892 |  | 306,791 |  | 163,274 |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ 10,167,369 | \$ | 10,716,575 | \$ | 549,206 | \$ | 10,247,145 | \$ | 79,776 |
| FTEs | 25.92 |  | 25.30 |  | (0.62) |  | 24.40 |  | (1.52) |

## Summary of Variances by Category - 2015 Budget Compared to 2014 Budget

- Personnel - Projected to be lower in 2015 due to the transfer of one position to another department in 2014, as well as an increase in across-the-board FTE adjustments to account for attrition and hiring delays (from $4 \%$ in 2014 to $6 \%$ in 2015).
- Meetings, Travel, and Conferencing Expenses - The increase in meeting expenses and decreases in conferencing and travel expenses are based upon prior year actual results, the anticipated level of Reliability Standards development activity in 2015, and continued focus on cost reduction, including holding meetings in NERC's offices when possible.
- Office Costs - The decrease is due to the reduction in FTEs and lower telecommunication costs as a result of having fewer telecommuters.
- Indirect costs and allocation of fixed assets - The increase is due to higher administrative service expenses allocated to the direct programs, as explained on page xxii.


## Compliance Monitoring and Enforcement and Organization Registration and Certification Program Area

The Compliance Monitoring Enforcement and Organization Registration and Certification Program Area's purpose is to monitor, enforce, and ensure registered entity compliance with the ERO's mandatory standards. This program area is broken down into three operational groups: (1) Regional Entity Assurance and Oversight, (2) Compliance Analysis, Certification and Registration, and (3) Compliance Enforcement.

## Regional Entity Assurance and Oversight

| Compliance Analysis, Certification and Registration (in whole dollars) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 Budget |  | 2015 Budget |  | Increase <br> (Decrease) |  |
| Total FTEs |  | 9.60 |  | 11.25 |  | 1.65 |
| Direct Expenses | \$ | 1,926,469 | \$ | 2,353,718 | \$ | 427,250 |
| Indirect Expenses | \$ | 1,804,814 | \$ | 2,369,694 | \$ | 564,880 |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - |
| Inc(Dec) in Fixed Assets | \$ | 53,154 | \$ | 141,451 | \$ | 88,296 |
| TOTAL BUDGET | \$ | 3,784,438 | \$ | 4,864,863 | \$ | 1,080,426 |

## Background and Scope

NERC's Regional Entity Assurance and Oversight group (formerly the Compliance Operations department) works collaboratively with the eight Regional Entities to ensure consistent and effective implementation of the Compliance Monitoring and Enforcement Program (CMEP) across the entire ERO Enterprise. The CMEP identifies the monitoring processes for use by the Regional Entities, including compliance audits, self-certification, spot checking, investigations, self-reporting, periodic data submittals, and complaints. NERC and the Regional Entities ensure consistent and fair implementation of the CMEP, coalesce around best practices, and implement data management procedures that address data reporting requirements, data integrity, data retention, data security, and data confidentiality.

The Regional Entity Assurance and Oversight group's responsibilities include but are not limited to the following major activities and functions:

- Consistent implementation of the risk-based compliance monitoring program for reliability improvements, including developing and maintaining the necessary compliance-related processes, procedures, IT platforms, tools, and templates;
- Oversight of the Regional Entities' delegated compliance functions, including: (1) consistent and uniform CMEP planning, implementation, and reporting; (2) compliance operations and coordination; and (iii) auditor training;
- CIP V5 activities related to transition, training, and compliance design of ERO education programs that support industry compliance and the integration of risk assessment and internal controls;
- Development of minimum baseline monitoring requirements;
- Development and maintenance of RSAWs;
- Support for Regional Entity and industry committees, working groups, and task forces, such as the Compliance and Certification Committee; and
- Supporting standards development and education.


## Stakeholder Engagement and Benefit

The Regional Entity Assurance and Oversight group is committed to ensuring that all registered entities understand their compliance obligations and how compliance will be assessed. Compliance department staff will continue its work in reducing the variety of compliance documents currently produced and revising the RSAW tool to be more effective.

This group provides compliance information, statistics, and perspectives to standard drafting teams to foster the development of standards that provide an increased reliability benefit and clarify compliance risks. It will continue its collaboration with industry and Standards department staff early in the standards development process by providing draft RSAW guidance, including information on how compliance with draft standards will be determined, as well as input regarding the auditability and enforceability of the draft standards. This will better ensure that an RSAW serves as a tool in the auditing process and is not used or viewed as a tool to expand or modify standards requirements. After the Board approves a Reliability Standard and before the standard's effective date, NERC will conduct compliance trials to provide auditors and industry clear expectations of compliance.

NERC continues to promote registered entities' development of effective compliance programs and internal controls. As discussed in connection with the RAI, the Regional Entity Assurance and Oversight group is committed to a proactive and forward-looking method of supporting reliability assurance by taking into account greater consideration of internal controls. A common risk-based methodology for evaluating an entity's risk to the BES, and relevant internal controls, will support a consistent, risk-based approach to how compliance monitoring activities may be scoped.

As RAI focus group activities conclude in 2014, there will be additional opportunities to engage industry readiness and maximize stakeholder engagement during the implementation and deployment of various components of RAI into 2015 and beyond.

## Key Efforts Underway in 2014

## Reliability Assurance Initiative

Consistent with the goals and objectives set forth in the Strategic Plan, NERC continues to implement the Reliability Assurance Initiative as part of its stated objectives of ensuring BES reliability, improving the efficiency and effectiveness of NERC and Regional Entity compliance and enforcement operations, and reducing unnecessary burdens to registered entities. Implementing the RAI program is a multiyear effort that involves compliance and enforcement process changes, development of new tools and training materials, and a variety of related efforts. These initiatives are specifically aimed at moving the ERO toward a culture of reliability through improved compliance monitoring and enforcement mechanisms. Moreover, these initiatives will also eliminate known problems with the current "zero-tolerance" processes that place unnecessary administrative burdens on registered entities and consume too many NERC and Regional Entity resources.

The major activities of the Regional Entity Oversight and Compliance group for 2014 include: (1) development of a single ERO methodology for registered entity reliability risk assessments and evaluation and testing of registered entity internal controls, and (2) implementation of a complete auditor manual with the approved auditor handbook and checklist. Other enhancements are also expected to be implemented during 2014, including process improvements associated with the coordination of compliance and enforcement activities for multi-Region registered entities (MRREs).

## Regional Entity Oversight and Compliance

The implementation of processes and procedures associated with the RAI will necessitate changes to the way NERC performs oversight of the Regional Entities. While the primary purpose of the RAI is to focus compliance monitoring activities on risk, an extremely important aspect of the design is to create a common ERO Enterprise approach. The common approach includes a single implementation plan, the use of a common checklist and handbook, a defined common approach to compliance monitoring, and an agreed-upon set of standards outlining the expectations for a compliance auditor's role. This convergence to a single design will also drive the adoption of common tools and systems. NERC is designing oversight and compliance activities to train compliance personnel on each aspect of the RAI, support the deployment of processes, and perform compliance activities that assure adoption and execution for each aspect of the RAI.

## Critical Infrastructure Protection (CIP) Compliance and Transition

Consistent implementation of the risk-based CIP compliance monitoring program, including registration and certification, is necessary for reliability improvements. NERC and the Regional Entities continue to manage the smooth transition of compliance activities from Version 3 to Version 5 of the CIP standards by providing training, webinars, and other forms of outreach. The ERO education programs support industry compliance and the integration of risk assessment and internal controls.

## 2015 Goals and Deliverables

The Regional Entity Oversight and Compliance Group has several goals and objectives that support the ERO Strategic Plan. Resources will be focused on building upon the framework and improvements implemented as a result of the ongoing RAI activities in 2014. Specific 2015 objectives for this group include:

1. Developing a training program to support implementation of the common audit procedures and the ERO Auditor Capabilities and Competencies Guide.
2. Replacing/enhancing the existing compliance, reporting, analysis tracking system (CRATS) and other compliance tools to support RAI activities.
3. Making effective internal controls models and information available to industry.
4. Initiating compliance phase-in learning periods for new standards.
5. Transitioning to a single ERO approach to compliance monitoring and common audit planning, implementing RAI techniques and principles consistently.
6. Consolidating to a common set of RSAWs, or successors, for all standards.
7. Enhancing the design of regional compliance audits to evaluate regional staffing, deployment of tools, and testing of compliance activities;
8. Increasing the frequency of audits to validate the implementation of RAI program designs; and
9. Creating technically sound training to support compliance methodologies and testing approaches for Reliability Standards.

These 2015 activities are necessary to assure that RAI-developed policies, processes, and procedures are implemented both uniformly and consistently across the Regions. A number of RAI-related activities support the implementation of the strategic risk-based reforms intended to reduce regulatory burden on industry, increase efficiency, and provide greater direct reliability benefit by properly aligning resources associated with compliance monitoring programs. The increased oversight will assure industry benefits are achieved, validate methodologies, and identify continued process improvements. The bulk of these activities will be resourced from NERC and Regional Entity staffs, but certain activities related to advancing the program implementation and the compliance application tool will be supported through the use of outside consultants.

## Resource Requirements

## Personnel

No personnel additions are proposed for 2015. The 1.25 FTE decrease is the result of a 2014 reallocation of personnel to other departments. Management will continue to evaluate whether sufficient resources are available to support key departmental initiatives.

## Contractors and Consultants

Funds have been budgeted for outside consultants to assist in the development of RAI documentation. The budgeted amount is generally consistent with the 2014 budget. In addition, the Information Technology budget includes funding for the maintenance, evaluation, and development of enterprise tools supporting compliance assessment, registration, certification, and enforcement activities.

| Statement of Activities and Fixed Assets Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| COMPLIANCE ANALYSIS, CERTIFICATION and REGISTRATION |  |  |  |  |  |  |  |  |  |  |
|  |  | $2014$ <br> Budget |  | 2014 rojection |  | ariance <br> Projection <br> 4 Budget <br> r(Under) |  | $\begin{gathered} 2015 \\ \text { 3udget } \end{gathered}$ |  | ariance <br> 5 Budget <br> 14 Budget <br> (Under) |
| Funding |  |  |  |  |  |  |  |  |  |  |
| ERO Funding |  |  |  |  |  |  |  |  |  |  |
| NERC Assessments | \$ | 3,264,067 | \$ | 6,136,445 | \$ | 2,872,378 | \$ | 4,758,043 | \$ | 1,493,976 |
| Penalty Sanctions | \$ | 18,195 | \$ | 34,206 |  |  |  | 106,550 |  | 88,355 |
| Total NERC Funding | \$ | 3,282,261 | \$ | 6,170,651 | \$ | 2,872,378 | \$ | 4,864,593 | \$ | 1,582,331 |
| Third-Party Funding |  | - |  | - |  | - |  | - |  | - |
| Testing Fees |  | - |  | - |  | - |  | - |  | - |
| Services \& Software |  | - |  | - |  | - |  | - |  | - |
| Workshops |  |  |  | - |  | - |  | - |  | - |
| Interest |  |  |  | 254 |  | 254 |  | 271 |  | 271 |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Total Funding (A) | \$ | 3,282,261 | \$ | 6,170,905 | \$ | 2,872,632 | \$ | 4,864,863 | \$ | 1,582,602 |
| Expenses |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 1,336,885 | \$ | 1,770,102 | \$ | 433,217 | \$ | 1,658,833 | \$ | 321,948 |
| Payroll Taxes |  | 86,509 |  | 118,354 |  | 31,845 |  | 105,003 |  | 18,494 |
| Benefits |  | 168,463 |  | 207,368 |  | 38,905 |  | 203,715 |  | 35,252 |
| Reti rement Costs |  | 153,442 |  | 190,066 |  | 36,624 |  | 186,557 |  | 33,115 |
| Total Personnel Expenses | \$ | 1,745,299 | \$ | 2,285,890 | \$ | 540,591 | \$ | 2,154,108 | \$ | 408,809 |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |
| Meetings |  |  | \$ | 70,000 | \$ | 70,000 | \$ | 3,064 | \$ | 3,064 |
| Travel |  | 154,500 |  | 197,898 |  | 43,398 |  | 164,158 |  | 9,658 |
| Conference Calls |  |  |  | 7,173 |  | 7,173 |  | 3,588 |  | 3,588 |
| Total Meeting Expenses | \$ | 154,500 | \$ | 275,071 | \$ | 120,571 | \$ | 170,810 | \$ | 16,310 |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts |  |  | \$ | 470,165 | \$ | 470,165 | \$ | - | \$ | - |
| Office Rent |  | - |  | - |  | - |  | - |  | - |
| Office Costs |  | 26,670 |  | 29,531 |  | 2,861 |  | 28,550 |  | 1,880 |
| Professional Services |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  |  |  | - |  | - |  | 250 |  | 250 |
| Depreciation |  | - |  | 2,555 |  | 2,555 |  | - |  | - |
| Total Operating Expenses | \$ | 26,670 | \$ | 502,251 | \$ | 475,581 | \$ | 28,800 | \$ | 2,130 |
| Total Direct Expenses | \$ | 1,926,469 | \$ | 3,063,212 | \$ | 1,136,742 | \$ | 2,353,718 | \$ | 427,249 |
| Indirect Expenses | \$ | 1,804,814 | \$ | 2,608,376 | \$ | 803,561 | \$ | 2,369,694 | \$ | 564,880 |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total Expenses (B) | \$ | 3,731,284 | \$ | 5,671,587 | \$ | 1,940,304 | \$ | 4,723,412 | \$ | 992,129 |
| Change in Assets | \$ | $(449,022)$ | \$ | 499,317 | \$ | 932,328 | \$ | 141,451 | \$ | 590,473 |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |
| Depreciation |  | - |  | $(2,555)$ |  | $(2,555)$ |  | - |  | - |
| Computer \& Software CapEx |  | - |  | - |  | - |  | - |  | - |
| Furniture \& Fixtures CapEx |  | - |  | - |  | - |  | - |  | 0 |
| Equipment CapEx |  | - |  | - |  | - |  | - |  | 0 |
| Leasehold Improvements |  | - |  | - |  | - |  | - |  | 0 |
| Allocation of Fixed Assets | \$ | 53,154 | \$ | 23,706 |  | $(29,448)$ |  | 141,451 |  | 88,296 |
| Inc(Dec) in Fixed Assets ( C ) | \$ | 53,154 | \$ | 21,151 | \$ | $(32,004)$ | \$ | 141,451 | \$ | 88,296 |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ | 3,784,438 | \$ | 5,692,738 | \$ | 1,908,300 | \$ | 4,864,863 | \$ | 1,080,425 |
| FTEs |  | 9.60 |  | 12.26 |  | 2.66 |  | 11.25 |  | 1.65 |

## Summary of Variances by Category - 2015 Budget Compared to 2014 Budget

- Funding - Workshop fees have not been budgeted in 2015 because auditor workshops are being held at NERC or Regional offices (rather than hotels) at a much lower cost; there are no fees.
- Personnel - The decrease is due to the transfer of one position to another department in 2014, as well as an increase in across-the-board FTE adjustments to account for attrition and hiring delays (from $4 \%$ in 2014 to $6 \%$ in 2015). The reduction in payroll taxes is not as significant as the reduction in salaries due to a higher maximum salary subject to FICA taxes.
- Meetings, Travel, and Conferencing Expenses - The increase in travel expenses and decrease in conferencing expenses are based upon prior year actual results, the anticipated level of activity in 2015, and continued focus on cost reduction, including holding meetings in NERC's offices when possible.
- Office Costs - The decrease is due to the reduction in FTEs and lower telecommunication costs as a result of having fewer telecommuters.
- Indirect costs and allocation of fixed assets - The increase is due to higher administrative service expenses allocated to the direct programs, as explained on page xxii.


## Compliance Analysis, Registration and Certification Group

| Compliance Analysis, Certification and Registration (in whole dollars) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 Budget |  | 2015 Budget |  | Increase <br> (Decrease) |  |
| Total FTEs |  | 9.60 |  | 11.25 |  | 1.65 |
| Direct Expenses | \$ | 1,926,469 | \$ | 2,353,718 | \$ | 427,250 |
| Indirect Expenses | \$ | 1,804,814 | \$ | 2,369,694 | \$ | 564,880 |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - |
| Inc(Dec) in Fixed Assets | \$ | 53,154 | \$ | 141,451 | \$ | 88,296 |
| TOTAL BUDGET | \$ | 3,784,438 | \$ | 4,864,863 | \$ | 1,080,426 |

## Background and Scope

The Compliance Analysis, Registration and Certification group is responsible for a range of requirements and activities embodied in Section 500 (Organization Registration and Certification) and Appendices 5A and 5B of the NERC Rules of Procedure. The department strives to ensure that: (1) Compliance Analysis, Registration and Certification informs standards development and compliance monitoring; (2) all entities impacting the BES are registered commensurate with risk; (3) all RCs, TOPs, and BAs are certified; (4) industry maintains effective internal control programs for reliability assurance risk; and (5) program gaps are assessed in all reportable events and addressed if appropriate. Specific activities of the department include:

- Registration - Identifies and registers BES users, owners, and operators who are responsible for compliance with the FERC-approved Reliability Standards. Organizations that are registered are
included on the NERC Compliance Registry (NCR) and are responsible for knowing the content of and for complying with all applicable Reliability Standards.
- Certification - The process by which NERC evaluates and certifies the competency of entities performing certain key reliability functions, specifically the RC, BA and TOP functions. Entities performing these three functions must be certified as having the necessary personnel, knowledge, facilities, programs, and other qualifications to carry out these important responsibilities, including demonstrating the ability to meet the Requirements/Sub-requirements of all of the Reliability Standards applicable to the reliability function(s) for which they are being certified.
- Compliance Investigations - Non-public, confidential investigations to identify possible violations of NERC Reliability Standards in response to complaints, BES disturbances, or other similar triggers. NERC staff participate as observers on investigations and inquiries conducted by FERC.
- Complaints - The process by which NERC addresses formal complaints that allege the violation of Reliability Standards.
- Technical Assurance - Development of quarterly gap and risk assessment reports and recommended responses. The department conducts inquiries and spot checks based on quarterly gap analysis.
- Oversight - Regional registration, certification, investigation, and complaint programs.


## Stakeholder Engagement and Benefit

In 2014, NERC established a Risk-Based Registration Advisory Group (RBRAG) to provide input and advice for the Risk-Based Registration (RBR) design and implementation plan. The RBRAG is comprised of representatives from NERC, Regional Entity, and FERC staffs, along with United States and Canadian industry representatives. A white paper was developed with input from the RBRAG, industry responses to a survey, and assessment of information about the current Registration program attributes. The white paper was released for public comment in connection with NERC management's request for the MRC's policy input in April 2014. Further updates regarding the Registration program redesign and implementation plan will be periodically posted on NERC's website and discussed at NERC committee and Board meetings.

## Reliability Benefits

NERC launched RBR to ensure the right entities are subject to the right set of applicable Reliability Standards by using a consistent and common approach to risk assessment and registration across the ERO. The goal of this effort is to develop registration criteria and thresholds that identify users, owners, and operators who have a material impact on reliability, preserving an adequate level of reliability and avoid causing or exacerbating instability, uncontrolled separation, or cascading failures. Registered entities will be given proper signals and incentives to focus on operational, planning, physical security, cybersecurity, and business decisions in the best interest of reliability, rather than focusing on managing compliance risks. Registered entities will have certainty as to compliance obligations with tailored Reliability Standard requirements, as appropriate.

NERC and Regional Entities will have increased awareness of individual and aggregate entity risks to the reliability of the BES. They will have the ability to devote time and resources to registration and compliance monitoring and enforcement activities commensurate with the risks posed. Applicable governmental entities also will have increased awareness of entities subject to their respective
jurisdictions and their role in ensuring reliability of the BES. All other stakeholders, including end-use customers, will be third-party beneficiaries of benefits from implementation of RBR.

## Key Efforts Underway in 2014

In 2014, the Compliance Analysis, Certification and Registration group will continue the development of the new RBR design and registration criteria, which includes Board approval of a full implementation plan by year-end and an expected rollout in 2015.

The ultimate end-state vision considers the risk to reliability and ensures that the right entities are subject to the right set of applicable Reliability Standards, using a consistent and common approach to risk assessment and registration across the ERO Enterprise. Achieving the end-state vision is expected to occur in two phases. The first stage will focus on the development, refinement, and implementation of the RBR program design. The second stage will address any remaining non-design issues or considerations that may require longer lead times. The overall benefits of the RBR program include:

- Aligned entity registration and compliance burden to their risks and contributions to reliability, thereby reducing industry burden associated with registration and ensuring no gaps or duplication of compliance responsibilities, while sustaining continued reliability.
- Improved use of NERC, Regional Entity, and registered entity resources.
- Improved feedback to Reliability Standards development so applicability can be tailored for currently enforced and future standards.
- Increased consistency in registration with the eight Regional Entities by developing a common and repeatable approach as part of the design of the RBR program.


## 2015 Goals and Deliverables

In 2015, the Compliance Analysis, Registration and Certification group's resources will be focused on building upon the implementation of the RBR activities in 2014. Specific 2015 objectives for the department include:

1. Deploying a sustainable RBR design that incorporates evaluation of the reliability risks and benefits provided by an entity to ensure reliability, identifying a corresponding properly scoped set of Reliability Standard requirements.
2. Developing an implementation plan with business practices and IT requirements that addresses unintended industry burden.
3. Aligning changes to the registration criteria with other NERC activities.
4. Assessing the current certification program for opportunities to mature the program.
5. Addressing effects to registration from the enhanced BES definition.
6. Providing support to the continued development of RSAWs; aid in the BES definition exception submittal process; aid in the review of registration appeals and aid in the review of registration appeals and review of mitigating activities; and assist with training modules for investigations, certifications, and registrations.
7. Providing analysis in support of projects addressing top reliability risks.

## Resource Requirements

## Personnel

No additional personnel are slated for 2015. The 1.65 FTE increase is the result of a 2014 reallocation of personnel from other departments.

## Contractor Expenses

To the extent required, operating reserves will be used to fund expert costs to support investigations.

| Statement of Activities and Fixed Assets Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| COMPLIANCE ANALYSIS, CERTIFICATION and REGISTRATION |  |  |  |  |  |  |  |  |  |  |
|  |  | $2014$ <br> Budget |  | 2014 <br> ojection |  | ariance <br> Projection <br> 4 Budget <br> (Under) |  | $\begin{aligned} & 2015 \\ & \text { udget } \end{aligned}$ |  | ariance <br> 5 Budget <br> 4 Budget <br> r(Under) |
| Funding |  |  |  |  |  |  |  |  |  |  |
| ERO Funding |  |  |  |  |  |  |  |  |  |  |
| NERC Assessments | \$ | 3,264,067 | \$ | 6,136,445 | \$ | 2,872,378 | \$ | 4,758,043 | \$ | 1,493,976 |
| Penalty Sanctions | \$ | 18,195 | \$ | 34,206 |  |  |  | 106,550 |  | 88,355 |
| Total NERC Funding | \$ | 3,282,261 | \$ | 6,170,651 | \$ | 2,872,378 | \$ | 4,864,593 | \$ | 1,582,331 |
| Third-Party Funding |  | - |  | - |  | - |  | - |  | - |
| Testing Fees |  | - |  | - |  | - |  | - |  | - |
| Services \& Software |  | - |  | - |  | - |  | - |  | - |
| Workshops |  |  |  | - |  | - |  | - |  | - |
| Interest |  |  |  | 254 |  | 254 |  | 271 |  | 271 |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Total Funding (A) | \$ | 3,282,261 | \$ | 6,170,905 | \$ | 2,872,632 | \$ | 4,864,863 | \$ | 1,582,602 |
| Expenses |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 1,336,885 | \$ | 1,770,102 | \$ | 433,217 | \$ | 1,658,833 | \$ | 321,948 |
| Payroll Taxes |  | 86,509 |  | 118,354 |  | 31,845 |  | 105,003 |  | 18,494 |
| Benefits |  | 168,463 |  | 207,368 |  | 38,905 |  | 203,715 |  | 35,252 |
| Retirement Costs |  | 153,442 |  | 190,066 |  | 36,624 |  | 186,557 |  | 33,115 |
| Total Personnel Expenses | \$ | 1,745,299 | \$ | 2,285,890 | \$ | 540,591 | \$ | 2,154,108 | \$ | 408,809 |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |
| Meetings |  |  | \$ | 70,000 | \$ | 70,000 | \$ | 3,064 | \$ | 3,064 |
| Travel |  | 154,500 |  | 197,898 |  | 43,398 |  | 164,158 |  | 9,658 |
| Conference Calls |  |  |  | 7,173 |  | 7,173 |  | 3,588 |  | 3,588 |
| Total Meeting Expenses | \$ | 154,500 | \$ | 275,071 | \$ | 120,571 | \$ | 170,810 | \$ | 16,310 |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts |  |  | \$ | 470,165 | \$ | 470,165 | \$ | - | \$ | - |
| Office Rent |  | - |  | - |  | - |  | - |  | - |
| Office Costs |  | 26,670 |  | 29,531 |  | 2,861 |  | 28,550 |  | 1,880 |
| Professional Services |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  |  |  | - |  | - |  | 250 |  | 250 |
| Depreciation |  | - |  | 2,555 |  | 2,555 |  | - |  | - |
| Total Operating Expenses | \$ | 26,670 | \$ | 502,251 | \$ | 475,581 | \$ | 28,800 | \$ | 2,130 |
| Total Direct Expenses | \$ | 1,926,469 | \$ | 3,063,212 | \$ | 1,136,742 | \$ | 2,353,718 | \$ | 427,249 |
| Indirect Expenses | \$ | 1,804,814 | \$ | 2,608,376 | \$ | 803,561 | \$ | 2,369,694 | \$ | 564,880 |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total Expenses (B) | \$ | 3,731,284 | \$ | 5,671,587 | \$ | 1,940,304 | \$ | 4,723,412 | \$ | 992,129 |
| Change in Assets | \$ | $(449,022)$ | \$ | 499,317 | \$ | 932,328 | \$ | 141,451 | \$ | 590,473 |


| Fixed Assets |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Depreciation |  | - |  | $(2,555)$ |  | $(2,555)$ |  | - |  | - |
| Computer \& Software CapEx |  | - |  | - |  | - |  | - |  | - |
| Furniture \& Fixtures CapEx |  | - |  | - |  | - |  | - |  | 0 |
| Equipment CapEx |  | - |  | - |  | - |  | - |  | 0 |
| Leasehold Improvements |  | - |  | - |  | - |  |  |  | 0 |
| Allocation of Fixed Assets | \$ | 53,154 | \$ | 23,706 |  | $(29,448)$ |  | 141,451 |  | 88,296 |
| $\operatorname{lnc}(\mathrm{Dec})$ in Fixed Assets ( C ) | \$ | 53,154 | \$ | 21,151 | \$ | $(32,004)$ | \$ | 141,451 | \$ | 88,296 |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ | 3,784,438 | \$ | 5,692,738 | \$ | 1,908,300 | \$ | 4,864,863 | \$ | 1,080,425 |
| FTEs |  | 9.60 |  | 12.26 |  | 2.66 |  | 11.25 |  | 1.65 |

## Summary of Variances by Category - 2015 Budget Compared to 2014 Budget

- Personnel - The increase in personnel expense is primarily due to the transfer of personnel from other departments, offset by an increase in FTE adjustments to account for attrition and hiring delays-from $4 \%$ in 2014 to $6 \%$ in 2015. Due to a higher maximum salary subject to FICA taxes, payroll tax expenses are increasing at a slightly higher percentage than the other expense categories.
- Meetings, Travel and Conferencing Expenses - The increase in travel is due to the increase in FTEs. The increase in meetings and conferencing expenses is based upon prior year actual and projected 2014 results.
- Office Costs - The increase is due to the increase in FTEs.
- Indirect Expenses and Allocation of Fixed Assets - Indirect expenses and allocation of fixed assets is higher due to higher administrative services expenses (to be allocated to the direct function programs) as previously explained on page xxi.


## Compliance Enforcement Department

| Compliance Enforcement (in whole dollars) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 Budget |  | 2015 Budget |  | Increase <br> (Decrease) |  |
| Total FTEs |  | 18.24 |  | 15.01 |  | (3.23) |
| Direct Expenses | \$ | 2,864,951 | \$ | 2,456,441 | \$ | $(408,509)$ |
| Indirect Expenses | \$ | 3,429,147 | \$ | 3,161,698 | \$ | $(267,449)$ |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - |
| Inc(Dec) in Fixed Assets | \$ | 100,993 | \$ | 188,727 | \$ | 87,734 |
| TOTAL BUDGET | \$ | 6,395,091 | \$ | 5,806,866 | \$ | $(588,224)$ |

## Background and Scope

The Compliance Enforcement department is responsible for overseeing enforcement processes, the application of penalties or sanctions, and activities to mitigate and prevent recurrence of noncompliance with Reliability Standards. The Compliance Enforcement department works collaboratively with the eight Regional Entities to ensure consistent and effective implementation of the Compliance Monitoring and Enforcement Program. Focus is also given to ensuring enterprise-wide resources are dedicated to the matters that have the greatest impact on reliability.

NERC's Compliance Enforcement department performs its responsibilities by:

- Monitoring Regional Entities' enforcement processes and providing oversight over the outcome of such processes to ensure due process, to identify best practices and process efficiency opportunities, and to promote consistency among Regional Entities' business practices;
- Collecting and analyzing compliance enforcement data and trends to assist with the identification of emerging risks and to help inform the development of enforcement policy and processes;
- Filing notices of penalty and other submittals associated with noncompliance discovered through Regional Entity compliance, enforcement, and monitoring activities;
- Processing and filing notices of penalty and other submittals associated with violations discovered through NERC-led investigations and audits; and
- Collaborating with other NERC departments, including Standards and Regional Oversight Compliance.


## Stakeholder Engagement and Benefit

Over the past few years, NERC and the Regional Entities made substantial progress in reducing the number of instances of noncompliance remaining to be evaluated and processed. The ERO Enterprise has held registered entities accountable for violations that created risk to the reliability of the BES while ensuring that enforcement actions are timely and transparent. NERC is also seeking to further promote a culture of reliability excellence by examining registered entities' internal compliance programs and considering them as mitigating factors in penalty determination.

## Processing Efficiencies

In an effort to improve the efficiency of enforcement processing throughout the ERO Enterprise, NERC developed a series of key enforcement processing metrics, which are tracked and analyzed throughout the year. In addition, in 2012 and 2013, NERC established corporate goals to reduce the number of older violations remaining to be processed. Working with NERC, the Regional Entities invested significant time and resources in processing the older violations. As a result, the ERO Enterprise as a whole reduced the number of older violations substantially. For example, in 2012, NERC and the Regional Entities reduced the number of open violations dating from before 2011 (excluding violations that are held by appeal, a regulator, or a court, referred to as "on-hold" violations) by 80\%. In 2013, NERC and the Regional Entities built on the successes of 2012. By January 1, 2014, the ERO Enterprise had reduced the number of pre2012 violations (excluding "on hold" violations) by 93\%. As of June 30, 2014, 43\% of the pre-2013 noncompliance issues have been processed and resolved. The 237 pre- 2013 remaining cases represent $2 \%$ of the total violations submitted to the ERO Enterprise from 2007 through June 30, 2014.


## FFT Enhancements

NERC and the Regional Entities have worked together to implement the latest round of FFT improvements approved by FERC and reduce the amount of time required to process issues through the FFT program. As a result of these improvements, FFT treatment is now available for a limited pool of Possible Violations (PVs) that pose a moderate risk to the reliability of the BES (in addition to those posing a minimal risk). In addition, certain unmitigated PVs may be processed through the FFT program as long as mitigation is completed within 90 days of the date the FFT is posted.

To streamline processing of FFTs, Regional Entities now submit them for public posting on NERC's website at the end of each month. (The prior requirement was for NERC to submit monthly informational filings to FERC.) NERC maintains its enforcement oversight by reviewing a representative sample of FFTs during the 60 -day window following the monthly posting as well as through an annual spot check. NERC's spot checks of FFT items ensure that issues selected for FFT treatment are appropriate for the program, that the issues are explained sufficiently in the posted documents, that the FFT program is implemented consistently across the Regions, and that information about FFT issues is presented consistently across the Regions.

## Self-Report and Other Enforcement Improvements

As part of the RAI, NERC and Regional Entity enforcement staff also have worked closely with stakeholders to identify potential improvements to self-report processes and other enforcement processes. A number of improvements were designed and implemented in 2013 and 2014. In 2013, NERC and the Regional Entities began two pilot programs (the Aggregation of Minimal Risk Issues and Enforcement Discretion pilot programs) to develop and test the real-world application of risk-based enforcement concepts. Under the Aggregation of Minimal Risk Issues pilot program, NERC and certain Regional Entities are testing the ability of selected registered entities to self-assess, identify, and mitigate minimal-risk noncompliance proactively. This pilot is focused on allowing registered entities with demonstrated effective management practices to self-identify and assess instances of noncompliance to aggregate minimal risk issues that would otherwise be individually self-reported. The first six-month cycle of this pilot ended in March 2014. In reviewing the results of the first cycle, NERC and the Regional Entities decided to continue the program for the next six to nine months and include additional registered entities to obtain more data on the impact of the program.

Under the Enforcement Discretion pilot program, certain Regional Entities are reviewing minimal-risk issues identified by certain registered entities (in some cases, through the Aggregation of Minimal Risk Issues pilot program) to determine whether those issues warrant Enforcement Discretion treatment. If an issue is tracked for Enforcement Discretion treatment, NERC and FERC will be notified and the record will be available for review, but no notice of PV will be issued to the registered entity. Issues recorded for Enforcement Discretion are referred to as Compliance Exceptions. The scope of the program will be increased to include additional registered entities so the ERO Enterprise may collect more data over the next six to nine months.

These activities are timed such that the additional data can be collected and provided to inform a filing to FERC, reporting on the RAI program.

## Key Enforcement Efforts Underway in 2014

In 2014, NERC and the Regional Entities are continuing to work together to reduce (and eventually eliminate) the number of violations in inventory that are older than 24 months. These efforts will ensure that Regional Entities are prioritizing and resolving older violations appropriately. Combined with efforts to decrease processing times through the use of alternative enforcement mechanisms and enforcement process refinements, the Regional Entities will reduce overall processing times and provide finality on compliance items more quickly to registered entities.

## Promotion of Self-Identification of Noncompliance and Prompt Mitigation

Although dedicated primarily to the evaluation and enforcement of discovered violations, Regional Entity enforcement programs play an important role in improving the reliability of the BES. By deploying proper incentives to encourage the self-discovery and timely self-reporting of violations, NERC and the Regional Entities have encouraged registered entities to take proactive steps to identify noncompliance. In 2013,
internally discovered violations comprised the majority of violations submitted to the Regional Entities. This rate of internally discovered violations was slightly higher than in 2012, when $72 \%$ of violations were discovered through internal means. In 2014, NERC and the Regional Entities will continue to encourage self-identification of noncompliance by registered entities.
In 2014, NERC will also continue to focus on and closely track the completion of mitigating activities. NERC monitors all items with ongoing mitigating activities regardless of where the violations are in the enforcement process; NERC expects mitigating activities to be completed in a timely manner.

## RAI Activities and Related Process Improvements

As of January 1, 2014, each of the Regional Entities implemented a triage process. Within the first 60 days after the discovery of a noncompliance, Regional Entities will review the noncompliance and make an initial determination as to whether the issue will proceed through enforcement or whether additional information is necessary for an initial determination. During the Enforcement Discretion pilot, only a limited set of minimal-risk issues from a select group of registered entities will be eligible for discretion treatment. Minimal-risk issues that do not qualify for discretion treatment may be tracked for FFT treatment or may be tracked for further review and analysis. By moving the initial determination to earlier in the enforcement process timeline, the triage process will promote the efficient processing of all issues, but particularly of FFTs. Ultimately, discretion will be available for minimal risk issues from all registered entities.

NERC and the Regional Entities developed two draft documents to enhance communication between registered entities and the Regional Entities and to facilitate the shift toward a risk-based enforcement approach. The first document, the ERO Enterprise Self-Report User Guide, provides registered entities with additional insight into the information NERC and the Regional Entities need to provide efficient and timely resolution of instances of potential noncompliance. The second document, the ERO Enterprise Mitigation Plan Guide, provides guidance on the information that should be considered when developing a Mitigation Plan and what elements and analysis to include.

Both the ERO Enterprise Self-Report User Guide and the ERO Enterprise Mitigation Plan Guide were posted for public comment in January 2014. NERC has reviewed comments and revised the documents. The newest version of each document will be posted to the RAI page of the NERC website. ${ }^{18}$

The goal of RAI is to shift the compliance and enforcement approach from one in which all instances of noncompliance are evaluated as PVs to an approach that strengthens management practices and reserves the enforcement process for instances of noncompliance that have been found to pose a greater risk to reliability. The enforcement initiatives described above, in conjunction with RAI compliance initiatives encouraging the development of strong management practices, will advance NERC's progress toward this goal in 2014. In addition, the process and communication improvements developed under RAI will improve overall processing times.

## 2015 Goals and Deliverables

Throughout 2015, NERC's Enforcement department will identify processing efficiencies to improve enforcement activities and focus on issues that reduce reliability risk. Specific 2015 objectives for the Compliance Enforcement department include:

1. Consolidate new processes, as discussed above.

[^12]2. Ensure timely processing of violations, particularly those that pose greater risk and can provide lessons learned to industry.
3. Ensure early dissemination of violation information to registered entities to enable them to learn from prior events and violations and take preventative actions to eliminate similar risks. The Compliance Enforcement department also will continue to work with the Regional Entities to significantly reduce their caseloads by closing prior PVs.

## Resource Requirements

## Personnel

No additional Enforcement personnel are being proposed in 2015; budgeted staffing is being reduced by 3.23 FTEs from the 2014 budget.

## Contractor Expenses

The Information Technology budget includes funding for the maintenance, evaluation, and development of enterprise tools supporting compliance assessment, registration, certification, and enforcement activities.

| Statement of Activities and Fixed Assets Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| COMPLIANCE ENFORCEMENT |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{gathered} 2014 \\ \text { Budget } \end{gathered}$ |  | $2014$ <br> rojection |  | riance <br> rojection <br> 4 Budget <br> (Under) |  | $\begin{gathered} 2015 \\ \text { 3udget } \\ \hline \end{gathered}$ |  | riance <br> Budget <br> 4 Budget <br> (Under) |
| Funding |  |  |  |  |  |  |  |  |  |  |
| ERO Funding |  |  |  |  |  |  |  |  |  |  |
| NERC Assessments | \$ | 6,350,810 | \$ | 6,350,810 | \$ | 0 | \$ | 5,664,344 | \$ | $(686,466)$ |
| Penalty Sanctions |  | 41,484 | \$ | 41,484 |  |  |  | 142,161 |  | 100,677 |
| Total NERC Funding | \$ | 6,392,293 | \$ | 6,392,294 | \$ | 0 | \$ | 5,806,505 | \$ | $(585,789)$ |
| Third-Party Funding |  | - |  | - |  | - |  | - |  | - |
| Testing Fees |  | - |  | - |  | - |  | - |  | - |
| Services \& Software |  | - |  | - |  | - |  | - |  | - |
| Workshops |  | - |  | - |  | - |  | - |  | - |
| Interest |  | 2,798 |  | 293 |  | $(2,505)$ |  | 361 |  | $(2,437)$ |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Total Funding (A) | \$ | 6,395,091 | \$ | 6,392,587 | \$ | $(2,504)$ | \$ | 5,806,866 | \$ | $(588,225)$ |
| Expenses |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 2,043,427 | \$ | 1,750,912 | \$ | $(292,515)$ | \$ | 1,785,495 | \$ | $(257,932)$ |
| Payroll Taxes |  | 132,855 |  | 121,198 |  | $(11,657)$ |  | 110,866 |  | $(21,989)$ |
| Benefits |  | 320,080 |  | 239,393 |  | $(80,687)$ |  | 254,644 |  | $(65,436)$ |
| Retirement Costs |  | 234,210 |  | 176,027 |  | $(58,183)$ |  | 200,635 |  | $(33,575)$ |
| Total Personnel Expenses | \$ | 2,730,572 | \$ | 2,287,530 | \$ | $(443,042)$ | \$ | 2,351,641 | \$ | $(378,931)$ |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 2,500 | \$ | 1,770 | \$ | (730) | \$ | 2,000 | \$ | (500) |
| Travel |  | 85,298 |  | 56,927 |  | $(28,371)$ |  | 57,900 |  | $(27,398)$ |
| Conference Calls |  | 5,081 |  | 1,314 |  | $(3,767)$ |  | 2,900 |  | $(2,181)$ |
| Total Meeting Expenses | \$ | 92,879 | \$ | 60,011 | \$ | $(32,867)$ | \$ | 62,800 | \$ | $(30,079)$ |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Office Rent |  | - |  | - |  | - |  | - |  | - |
| Office Costs |  | 41,000 |  | 25,739 |  | $(15,261)$ |  | 41,500 |  | 500 |
| Professional Services |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | 500 |  | - |  | (500) |  | 500 |  | - |
| Depreciation |  | - |  | 2,846 |  | 2,846 |  | - |  | - |
| Total Operating Expenses | \$ | 41,500 | \$ | 28,585 | \$ | $(12,915)$ | \$ | 42,000 | \$ | 500 |
| Total Direct Expenses | \$ | 2,864,951 | \$ | 2,376,126 | \$ | $(488,824)$ | \$ | 2,456,441 | \$ | $(408,510)$ |
| Indirect Expenses | \$ | 3,429,147 | \$ | 3,010,483 | \$ | $(418,665)$ | \$ | 3,161,698 | \$ | $(267,449)$ |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total Expenses (B) | \$ | 6,294,098 | \$ | 5,386,609 | \$ | $(907,489)$ | \$ | 5,618,139 | \$ | $(675,959)$ |
| Change in Assets | \$ | 100,993 | \$ | 1,005,978 | \$ | 904,985 | \$ | 188,727 | \$ | 87,734 |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |
| Depreciation |  | - |  | $(2,846)$ |  | $(2,846)$ |  | - |  | - |
| Computer \& Software CapEx |  | - |  | - |  | - |  | - |  | - |
| Furniture \& Fixtures CapEx |  | - |  | - |  | - |  | - |  | 0 |
| Equipment CapEx |  | - |  | - |  | - |  | - |  | 0 |
| Leasehold Improvements |  | - |  | - |  | - |  | - |  | 0 |
| Allocation of Fixed Assets | \$ | 100,993 | \$ | 27,360 |  | $(73,633)$ |  | 188,727 |  | 87,734 |
| Inc(Dec) in Fixed Assets ( C ) | \$ | 100,993 | \$ | 24,514 | \$ | $(76,479)$ | \$ | 188,727 | \$ | 87,734 |
| TOTAL BUDGET ( $=$ + + C) | \$ | 6,395,091 | \$ | 5,411,123 | \$ | $(983,968)$ | \$ | 5,806,866 | \$ | $(588,225)$ |
| FTEs |  | 18.24 |  | 14.15 |  | (4.09) |  | 15.01 |  | (3.23) |

## Summary of Variances by Category - 2015 Budget Compared to 2014 Budget

- Personnel - The reduction in personnel expenses is due to the transfer of three positions to other departments in 2014.
- Meetings, Travel and Conferencing Expenses - The decrease in travel is due to the transfer of positions to other departments and is based upon 2013 actual costs. The reduction in meetings and conferencing expenses is based upon prior year actual and projected 2014 results.
- Indirect Expenses - The decrease in indirect expenses is due to a reduction in FTEs in proportion to total FTEs in the statutory programs.


## Reliability Assessments and Performance Analysis

| Reliability Assessments and Performance Analysis (in whole dollars) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 Budget |  | 2015 Budget |  | Increase <br> (Decrease) |  |
| Total FTEs |  | 18.99 |  | 19.70 |  | 0.71 |
| Direct Expenses | \$ | 4,903,304 | \$ | 5,456,456 | \$ | 553,152 |
| Indirect Expenses | \$ | 3,570,148 | \$ | 4,149,598 | \$ | 579,449 |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - |
| Inc(Dec) in Fixed Assets | \$ | $(122,854)$ | \$ | 219,696 | \$ | 342,550 |
| TOTAL BUDGET | \$ | 8,350,598 | \$ | 9,825,750 | \$ | 1,475,150 |

## Background and Scope

The Reliability Assessment and Performance Analysis (RAPA) department carries out the ERO's statutory responsibility to conduct assessments of the reliability and adequacy of the BES to provide insight and guidance about reliability risks and performance improvements. The department also identifies reliability performance issues and areas of concern (including equipment performance and related reliability issues) for consideration in the development of new mandatory Reliability Standards, the modification of existing standards as part of the Reliability Standards Development Program, or other initiatives that enhance overall reliability. The department develops effective approaches for achieving reliability, develops a solid technical framework and understanding of the reliability risks facing the industry, and utilizes those insights to communicate guidance and information to entities across North America. The department does this through its own engineering and analysis efforts, as well as through marshaling stakeholder resources with subject matter expertise. RAPA is responsible for the:

- Independent assessments and reports on the overall reliability, adequacy, and associated reliability risks that could impact the upcoming summer and winter seasons and the long-term (e.g., ten-year) planning horizon.
- Performance analysis and recommendations of historical reliability and associated trends, relying on data integrity and consistent methodology, which in turn leads to credible recommendations and guidance.
- Reliability assessment and bulk system evaluation model development for analyzing steady-state and dynamic conditions.
- Assurance that electrical elements necessary for the reliable operation of the BPS are appropriately identified as Bulk Electric System Elements.
- Reliability risk program management for improving key risk areas using analyses of reliability gaps, risks, controls, and management efforts.
- Determination of reliability risk program priorities that align with the Strategic Plan and business plan and budget for appropriate level of resources, timing, completion, and execution.
- Providing leadership and consistent, technically sound guidance and recommendations that position industry and policy makers to enhance reliability through effective outreach and communications.


## Stakeholder Engagement and Benefit

The ERO monitors the reliability performance of the BES in North America through data gathered to analyze historic trends. The ERO provides reports and recommendations regarding the anticipated conditions that could impact the reliability, security, and stability of the BPS to the industry, Regional Entities, regulatory entities, and other designated entities.

RAPA works with industry leaders to create a reliability strategy that is relevant, timely, and effective at addressing the most important reliability risks. This effort includes understanding key information identified through analysis and assessment efforts; extracting and prioritizing the associated reliability risks from that information; sharing and integrating those risk analysis insights across the ERO Enterprise; and translating that knowledge into actionable guidance and recommendations for NERC management, the Board, and industry entities. This offers stakeholders an open and transparent approach for the development of NERC's reliability strategy, ultimately ensuring the ERO is accountable to industry, regulators, and the public at large.

## Key RAPA Efforts Underway in 2014

In 2014, RAPA continues to focus its efforts in the following key areas:

## Reliability Risk Analysis

A comprehensive understanding of complex interdependencies and their wide-ranging impacts affecting the reliability of the BES requires deliberate and methodical risk analysis and control strategies. A robust approach that identifies emerging reliability risks and seeks to address them is essential for ensuring NERC's effectiveness at enhancing the reliability of the BES.

The key trends, findings, and recommendations from Reliability Risk Analysis serve as technical input to the ERO's Reliability Standards and standards project prioritization, compliance process improvements, event analyses, reliability assessment, and critical infrastructure protection efforts. This analysis of BES
performance not only provides an industry reference for historical BES reliability, but it also offers analytical insights across the enterprise that lead toward industry action and enable the discovery and prioritization of specific actionable risk control steps. These analyses and results are summarized in the annual State of Reliability report, which provides guidance and recommendations that will lead to enhanced bulk system reliability.

NERC has identified specific areas of reliability risk in 2015. The set of programs and associated projects described in the following pages represents a focus on risk priority projects where NERC, in alignment with the industry, the RISC, and governments, can make a difference in improving or maintaining reliability. This represents an important aspect of the link between NERC's activities and its mission of ensuring the reliability of the North American Bulk Electric System.

Reliability risk management efforts involve identifying key reliability risk areas, setting priorities for addressing these areas, then determining appropriate efforts from the suite of tools available to address such risks, and compiling these into an overall portfolio of prioritized risk projects. Industry, NERC, RISC, and others undertook significant efforts to assemble event and performance analyses from published assessments into a prioritized set of appropriate reliability risk projects. These analyses led to recommendations based on technical committee discussions; industry perspectives at the Reliability Leadership Summit; and ongoing technical committee assessment, event analysis, and Reliability Assessment and Reliability Risk Analysis work products, such as the Long-Term Reliability Assessment, the State of Reliability report, and various special reports and seasonal assessments. These prioritized risk project recommendations have been incorporated for 2014 into eight project areas focused on managing the top-priority reliability risks. Each program contains one or more projects identified to produce specific deliverables. By structuring these projects and programs within the larger context of priority reliability risks, resources can be allocated across the ERO Enterprise and program areas.

These top-priority reliability risk programs have been identified for 2014 efforts in this business plan; further refinement and identification of a comparable list of priority efforts will emerge over the course of the year, representing the 2015 priority risk projects. For budget assumption purposes, NERC has planned for a comparable level of effort to be allocated within NERC program areas for these projects. This is not intended to be an exhaustive list of all the reliability-centered activities undertaken by NERC. Ongoing obligations regarding standards development, compliance and enforcement, reliability assessments, and performance analysis are expected to continue, as are the numerous activities to respond to regulatory directives and increase efficiency and effectiveness of the ERO.

## Reliability Risk Management Process

The process used to develop this set of programs is an interim approach as NERC transitions to a broader planning effort, titled the Reliability Risk Management Process (RRMP). NERC staff worked with the RISC to develop this process in a way that ensures that the consideration of reliability risk and the development of associated reliability risk management projects are reflected in ERO business planning activities. Under the RRMP, the RISC will collect information to identify and prioritize broad areas of reliability risk. These areas then undergo a deeper analysis to identify specific reliability risks, associated measurements, and the most critical risks within those broad areas that should be considered for further risk management activity. Following this analysis, strategies for managing the risks are developed. Such strategies may include the use of guidelines, information requests, training, NERC Alerts, technical conferences, research, standards, and other tools. Strategies will be weighed for overall effectiveness and efficiency, and a plan will be developed that addresses each identified reliability risk with a set of approaches commensurate in scope to the level of risk being managed. Ultimately, these efforts are reflected in ERO activities and the overall ERO planning process.

Listed below are the eight programs focused on managing the top-priority reliability risks as identified by the RISC. Each program has associated projects that are supported by various NERC departments. The supporting department is listed after each project. Further information about each project may be found in the supporting department's section of this report.

## Program: Changing Resource Mix

Associated Reliability Risk Areas: Long-Term Planning and System Analysis, Resource and Transmission Adequacy, Integration of New Technologies and Operations

Energy currently produced by large rotating machines is being replaced with energy produced by variable resources, demand-response programs, and other new types of resources that exhibit different characteristics with respect to some of the less-obvious fundamental components of reliable operation (e.g., inertia, frequency response, maneuverability). Continuing improvements in energy efficiency and other changes in load composition impact the characteristics and behavior of load, reactive power needs, and how the system operates and behaves during disturbances (e.g., fault-induced delayed voltage recovery). The ongoing shift in fuel from coal to natural gas brings challenges such as critical dependence on the just-in-time fuel supply chain of the natural gas infrastructure. All of these changes move the system toward different behaviors, operating characteristics, and levels of reliability risk.

- Project: Essential Reliability Services Special Assessment Phase II - RAPA
- Project: Development of Standardized Models - RAPA
- Project: Support for IEEE 1574 - RAPA
- Project: Load Composition Modeling Analysis - RAPA
- Project: Gas Coordination Guidelines - Reliability Risk Management (RRM) and RAPA


## Program: Resource Planning

Associated Reliability Risk Areas: Resource and Transmission Adequacy
Environmental regulations, low natural gas prices, load forecasting uncertainty, and economic factors all contribute to an increased rate of plant retirements and a lack of construction. While demand response and energy efficiency may offset some of these losses, performance of those technologies can be uncertain, and each brings unique challenges. Long-term outages of multiple units to employ environmental retrofits also may have impacts. This all contributes to a lack of certainty regarding resource adequacy in North America over the next several years. Forecasts show potential deficiencies in reserve margins as early as 2014 and 2015 in the ERCOT and midcontinent ISOs.

- Project: Environmental Regulations Special Assessment - RAPA


## Program: Protection System Reliability

Associated Reliability Risk Areas: Protection Systems
Protection Systems serve a vital role in defense against system disturbance events. However, cases exist in which design of a protection system may be insufficient-where a fault accompanied by a failure of any single Protection System component could result in a significant outage event on the BES. One example is the June 24,2004 , Western outage event, which resulted in the loss
of approximately 5,000 MW of generation and the potential for collapse of the Western Interconnection. NERC identified five events between 2004 and 2010 in which a single point of failure on a protection system caused, in whole or in part, an event on the BPS.

- Project: Protection System Reliability Analysis - RAPA


## Program: Uncoordinated Protection Systems

Associated Reliability Risk Areas: Protection Systems
Protection Systems that trip unnecessarily can contribute significantly to the size of an event. When Protection Systems are not coordinated properly, the order of execution can result in either incorrect elements being removed from service or more elements being removed than necessary. This can also occur with special protection systems, remedial action schemes, and underfrequency and under-voltage load-shedding schemes. Such coordination errors occurred in the September 8, 2011, Southwest event and the August 14, 2003, Northeast blackout event.

- Project: Guidelines for Coordination of Protection Systems and Other Devices - RAPA


## Program: Extreme Physical Events

Associated Reliability Risk Areas: Coordinated Attack on Multiple Facilities, Geomagnetic Disturbance, Extreme Weather/Acts of Nature, Localized Physical Attack, Electromagnetic Pulse

Coordinated sabotage attacks, severe weather events, and geomagnetic disturbances are physical events that, at the extreme, can cause extensive equipment damage. Because of the long time involved in manufacturing and replacing some BES assets, an extreme physical event that causes extensive damage to equipment would result in degraded reliability for an extended period of time. While events of this magnitude have a low probability of occurrence, the potential consequences of such an event are high enough that additional focus is needed to properly address this risk and minimize the consequences of an extreme physical event to acceptable levels.

- Project: Promoting Resiliency - RRM
- Project: Emergency Transformer Replacement - RAPA


## Program: Availability of Real-Time Tools and Monitoring <br> Associated Reliability Risk Areas: Monitoring and Situational Awareness

Inadequate situational awareness could have significant negative reliability consequences and is often a precursor to an event or a contributing cause to an event. Experience has shown that not having the right tools and data available can play a critical role in reduced situational awareness, contributing to events such as those seen in the September 8, 2011, Southwest event and the August 14, 2003, Northeast blackout event. NERC has analyzed data and identified that outages of tools and monitoring systems are fairly common occurrences, with approximately an $89 \%$ chance of a tool or monitoring system outage occurring within a given month. Each time one of these outages occurs, it creates a potential lack of situational awareness, resulting in a latent risk that could combine with other risks to produce a large event. In addition to outages, not providing the correct tools or data to operators is also a key concern.

- Project: Latent Risk Awareness of Real-Time Tools - RRM
- Project: Real-Time Reliability Monitoring and Analysis Standards - Standards
- Project: Tool Failure Guidelines - RRM


## Program: Protection System Misoperations

Associated Reliability Risk Areas: Protection Systems

Protection System Misoperations represent a double threat. Unnecessary trips can result in making a bad event worse and may start cascading failures as each successive trip can cause another protection system to trip. However, failures to trip and slow trips can damage equipment, which may result in degraded reliability for an extended period of time. Key Finding 4 from NERC's 2012 State of Reliability Report concluded that protection system misoperations are a significant contributor to disturbance events and automatic transmission outage severity.

- Project: Protection System Guidelines - RAPA
- Project: Protection System Education - RRM


## Program: Right-of-Way Clearances <br> Associated Reliability Risk Areas: Transmission Right-of-Way, Equipment Maintenance and Management

Reports from various entities have indicated that in a number of cases, actual conductor-toground clearances seen in the field have been inconsistent with those assumed during the design of the facility. Examples of inaccurate historical information that leads to these inconsistencies includes, but is not limited to, misplaced structures or supports, inadequate tower height, and ground profile inaccuracies. While an entity may address this concern by changing the facility ratings, modifying the transmission line configuration, or changing the topography, such cases must be identified before they can be addressed. Failure to address these misalignments could lead to incorrect ratings that are inadequate to prevent equipment damage or cascading, instability, or separation.

- Project: Right-of-Way Site Visit Evaluations - Compliance Analysis, Registration and Certification

Overall, it is anticipated that the resources expected to be deployed to address these reliability risk projects would be similar between 2015 and the comparable level of effort devoted to these efforts in 2014. Accordingly, each of the respective program areas provides a depiction of the efforts and resource allocation needed to support these projects and those anticipated to be identified for 2015. As the RISC and ERO continue to refine the efforts to establish a multi-year perspective addressing the key reliability initiatives, the specific projects and goals for 2015 (and potentially into 2016 and 2017) will be more clearly defined. At the same time, for business plan and budgeting purposes, it is expected that the level of effort allocated to these projects in 2014 would remain generally consistent with the levels expected in subsequent years.

## Reliability Assessment

Reliability assessments serve to evaluate the expected reliability behavior of the BPS through extensive deterministic and probabilistic analyses to identify potential reliability conditions that could compromise overall reliability. These reviews include both evaluations at the edge of the planning horizon, as well as assessments of the anticipated performance during upcoming summer or winter seasons. These analyses
involved planned and anticipated changes within the generation resources, transmission infrastructure, and load behavior to formulate recommendations and related guidance, often by examining special scenarios and unique situations within the North American BPS. These analyses provide a technical platform for important policy discussions on challenges facing the interconnected North American BES, as well as focused recommendations that improve the overall reliability or lessen reliability risks.

Each year, NERC is responsible for independently assessing and reporting on the overall reliability, adequacy, and associated risks that could impact the upcoming summer and winter seasons and the longterm, ten-year period. As emerging risks and potential impacts to reliability are identified, RAPA conducts special reliability assessments and identifies recommendations and guidance actions that may be warranted to lessen identified risks or enhance reliability overall. RAPA's assessments are founded on solid engineering through collaborative and consensus-based approach.

By identifying and quantifying emerging reliability issues, NERC is able to provide risk-informed recommendations and support a learning environment for industry to pursue improved reliability performance. These recommendations, along with the associated technical analysis, provide the basis for actionable enhancements to resource and transmission planning methods, planning and operating guidelines, and NERC Reliability Standards.

Key assessments include:
(1) Long-Term Reliability Assessment
(2) Summer and Winter Reliability Assessments
(3) Special and Scenario Reliability Assessments

Additionally, RAPA coordinates forecast reliability data between planning areas, the eight Regional Entities, and governmental organizations through the Electricity Supply and Demand Database.

## Reliability Initiatives and System Analysis

A deep understanding of the technical performance behavior of the North American grid provides a sound technical foundation for identifying those crucial aspects of grid performance that are important to sustaining overall reliability. This understanding is achieved through a comprehensive evaluation and testing of BES behavior through forensic analysis of system disturbances and analytic simulations. Methodically comparing actual system behavior to the results of analytical power flow and dynamics simulations enables RAPA to create recommendations and insights that enhance system performance and reliability. These insights establish the framework and foundation for predictive results that lead to effective operating strategies and recommendations that serve to maintain reliability.

Based on NERC and industry priorities, and to meet business planning goals, RAPA has chosen not to pursue several issues and initiatives in 2015. Probabilistic analysis of reserve margins for NERC's LongTerm Reliability Assessment will be completed every two years rather than annually (none in 2013 or 2015); the smart grid follow-on work plan will be addressed sometime after 2014; and wind generator availability information (GADS) will be reprogrammed to the 2016 time frame. In 2015, RAPA will refine the composition of NERC's annual State of Reliability report to reflect post-seasonal reliability review, insights from analysis of transmission, generator, and demand response data systems (TADS, GADS, and DADS), and integration of event analysis and misoperations.

Further, RAPA will continue to work closely with other organizations, including but not limited to the Electric Power Research Institute (EPRI), the Institute of Electrical and Electronic Engineers (IEEE), the

North American Transmission Forum (NATF), the North American Generation Forum (NAGF), and the Canadian Electricity Association (CEA). RAPA collaborates with these groups on a number of fronts, including geomagnetic disturbance (GMD), vegetation management, TADS, GADS, and variable generation integration. RAPA will continue working with the Interstate Natural Gas Association of America (INGAA) and the Natural Gas Supply Association (NGSA) regarding studies pertaining to the interdependency of gas and electric systems.

## Bulk Electric System (BES) Definition Implementation

During 2014, RAPA has been closely involved in the development of a revised definition for BES. RAPA has also been working closely with the Regional Entities to develop a software application to manage the implementation of the revised BES definition and exception process, by which a registered entity submits self-determined notifications or requests for exception of certain assets and systems from the BES. The associated business processes and guidance supporting the implementation are important elements aligned with the development of the BES tool. The BES tool and its functionality for Regions, registered entities, and NERC has been structured to conform to provisions of the Order 773 and 773-A directives and requirements.
The effective date for the implementation of the revised BES definition was July 1,2014 , and it is expected that during the remainder of 2014 and through 2015, reviews, evaluations, and confirmations of proposed changes to BES elements by registered entities will take place. This will involve both NERC and Regional Entity resources to manage effective implementation. Outside experts may be needed to conduct technical reviews of BES exception requests.

## 2015 Goals and Deliverables

In 2015, RAPA will seek to accomplish several specific goals and objectives as part of the strategic focus of the ERO Enterprise:

1. Issue reliability assessment reports, guidelines, recommendations, and alerts as needed.
a. One ten-year Long-Term Reliability Assessment
b. Two seasonal assessments: Summer and Winter
c. Reliability assessment report on geomagnetic disturbance (GMD) BES effects and vulnerability assessment
d. One additional special assessment addressing key aspects of reliability issues, such as:

- Essential Reliability Services white paper and framework assessment
- Variable generation penetration reliability impacts
- Planning assumptions related to major one-in-a-hundred-years storms
- Reliability risks associated with a diverse and changing resource mix
e. One annual State of Reliability report
f. Oversight of Generating, Transmission, and Demand Response Availability Data Systems (GADS, TADS, and DADS), along with reliability metrics, misoperations, and the Spare Equipment Database
g. Strengthen data collection and validation processes by designing, creating, testing, and implementing data checking systems for reliability assessment, system analysis, and risk analysis
h. Provide periodic updates on trends and measures of BES reliability

2. Develop a risk registry and systematic prioritization process consistent with the RISC framework and support BES risk profile measurement and assessment of standards.
3. Execute integrated risk control strategies and plans across the organization to address the highest-priority existing or emerging risks to BES reliability, and explicitly measure the results.
4. Support NERC Reliability Standard development and response to FERC directives by providing technical and system analysis expertise.
5. Support the technical foundation development for Reliability Standards to address deficiencies or needs revealed by RAPA.
6. Provide support and leadership to (1) the Planning Committee and (2) standing committees' subcommittees, working groups, and task forces serving the standing committees.
7. Develop a structured approach to evaluate and improve system models, model validation, system analysis, and assessments.
8. Assist in the development of approaches to registration and maintenance of the actively monitored list based on reliability trends, risks, and historical information to ensure that the compliance focus remains on the most critical entities and associated Reliability Standards.
9. Conduct major event investigations, analyses, and reporting of major findings and recommendations that will improve reliability.
10. Build and sustain an enterprise RAPA team that encompasses risk-informed approaches and structured methodology to identify and address reliability risks.
11. Implement effective oversight and tracking of various technical aspects of reliability, including frequency response performance, application of TPL footnote $b$ adoption, and root cause applications to assessments and analyses.

## Projects Addressing the Top-Priority Reliability Risks as Identified by the RISC

The RISC identified the following top-priority reliability risk projects for consideration in 2015. The projects are supported by one or more NERC departments, as indicated in the list below. As the RISC and ERO refine efforts to establish a multiyear perspective addressing key reliability initiatives, the specific projects and goals for 2015—and potentially into 2016 and 2017-will be more clearly defined as departments take into consideration resource availability.

## Project: Essential Reliability Services Special Assessment Phase II

The Reliability Assessments team will deliver the second part of its Special Assessment on Essential Reliability Services. The scope of this project consists of scenario analyses of different levels of Essential Reliability Services. (RAPA-RRM)

## Project: Development of Standardized Models

The Reliability Initiatives and System Analysis team will continue developing a standardized set of power flow and dynamic modeling components to support industry's need for more accurate models. (RAPA)

## Project: Support for IEEE 1574

The Reliability Initiatives and System Analysis team will continue its work with the standardssetting groups at IEEE to develop rules that establish frequency and voltage disturbance ridethrough obligations for distributed energy resources. (RAPA)

## Project: Load Composition Modeling Analysis

The Reliability Initiatives and System Analysis team will work with stakeholders at the Planning Committee to develop a guideline for performing analysis of loads to determine system needs for various essential reliability services. (RAPA)

## Project: Gas Coordination Guidelines

The Reliability Assessments team, in cooperation with the Event Analysis team, will collaborate with stakeholders to develop a guideline that establishes protocols for operations and emergency coordination with gas suppliers and transporters. (RAPA)

## Project: Environmental Regulations Special Assessment

The Reliability Assessments team will publish a special assessment on the potential impact of emerging and proposed environmental regulations to the reliability of the BPS. This will include updates to the previous report on the Reliability Impacts of Climate Change Initiatives (RICCI), as well as a focus on new and existing source $\mathrm{CO}_{2}$ requirements. (RAPA)

Project: Protection System Reliability Analysis
The Reliability Initiatives and System Analysis team will continue analysis of single-point-of-failure data reported in response to Order No. 754 to determine whether an industry response is necessary. The results of that analysis will be presented to the RISC for their advice on possible ERO responses. (RAPA-RRM)

Project: Guidelines for Coordination of Protection Systems and Other Devices
The Reliability Initiatives and System Analysis team will work with stakeholders to develop a best practices document. Included in the scope is coordination of the design and operation of transmission system protection, generator protection and control, special protection systems, and under-frequency and under-voltage load-shedding programs. Additionally, modeling necessary for assessing coordination through planning and operating assessments of system performance will be considered. (RAPA)

Project: Emergency Transformer Replacement
The Reliability Assessments and the Performance Analysis teams will work with industry to encourage participation in coordination support programs such as the Spare Equipment Database and the Spare Transformer Equipment Program. Reliability Assessments and Performance Analysis will also work to share information regarding the Recovery Transformer Program. (RAPA)

## Project: Protection System Guidelines

The Reliability Initiatives and System Analysis team will develop good industry practices and guidelines to aid in the proper application of relay elements to minimize setting errors, maintain microprocessor-based relay firmware, and apply power line carrier communication-aided protection. (RAPA-RRM)

The overall impact of resource allocations on the NERC budget reflected in the individual project program areas is reflected in the summary overview below.

## Resource Requirements

## Personnel

No additional personnel are proposed to be added in 2015. The 0.7 FTE increase is the result of a 2014 reallocation of personnel from other departments.

## Contractor Expenses

The total contractor and consultant expenses for the department are projected at $\$ 955.5 \mathrm{k}$, representing an approximate $\$ 317.4 \mathrm{k}$ increase over the 2014 budget. The 2015 contractor and consulting resources are described below and are grouped into four categories:

1. Research and Initiative Implementation, Tracking, and Reporting
a. Reliability Effects of GMD
b. Vegetation Management Research
2. Special and Long-Term Assessments and State of Reliability Analysis
a. Scenario assessment consultants
3. Licensing and Support of Existing Databases
4. Software Application Development—Replacement for the software application for industry access to GADS data is included in the Information Technology Capital budget, as are costs related to the development of enterprise software applications such as the Reliability Assessment Database applications.

| Statement of Activities and Fixed Assets Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RELIABILITY ASSESSMENTS and PERFORMANCE ANALYSIS |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{gathered} 2014 \\ \text { Budget } \\ \hline \end{gathered}$ |  | $\begin{gathered} 2014 \\ \text { Projection } \\ \hline \end{gathered}$ |  | ariance <br> Projection <br> 14 Budget <br> r(Under) |  | $\begin{gathered} 2015 \\ \text { 3udget } \\ \hline \end{gathered}$ |  | riance <br> Budget <br> 4 Budget <br> (Under) |
| Funding |  |  |  |  |  |  |  |  |  |  |
| NERC Assessments | \$ | 8,214,496 | \$ | 8,214,496 | \$ | 0 | \$ | 9,571,195 | \$ | 1,356,699 |
| Penalty Sanctions |  | 43,190 |  | 43,190 |  |  |  | 186,581 |  | 143,391 |
| Total NERC Funding | \$ | 8,257,686 | \$ | 8,257,686 | \$ | 0 | \$ | 9,757,776 | \$ | 1,500,090 |
| Third-Party Funding |  | - |  | - |  | - |  | - |  | - |
| Testing Fees |  | - |  | - |  | - |  | - |  | - |
| Services \& Software |  | 50,000 |  | 50,000 |  | - |  | 50,000 |  | - |
| Workshops |  | 40,000 |  | 40,000 |  | - |  | 17,500 |  | $(22,500)$ |
| Interest |  | 2,913 |  | 405 |  | $(2,508)$ |  | 474 |  | $(2,439)$ |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Total Funding (A) | \$ | 8,350,598 | \$ | 8,348,091 | \$ | $(2,508)$ | \$ | 9,825,750 | \$ | 1,475,151 |
| Expenses |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 2,604,058 | \$ | 2,869,006 | \$ | 264,948 | \$ | 2,833,480 | \$ | 229,422 |
| Payroll Taxes |  | 159,156 |  | 192,226 |  | 33,070 |  | 176,963 |  | 17,807 |
| Benefits |  | 333,241 |  | 331,374 |  | $(1,867)$ |  | 356,502 |  | 23,261 |
| Retirement Costs |  | 294,179 |  | 289,783 |  | $(4,396)$ |  | 317,664 |  | 23,485 |
| Total Personnel Expenses | \$ | 3,390,634 | \$ | 3,682,389 | \$ | 291,755 | \$ | 3,684,609 | \$ | 293,975 |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 90,000 | \$ | 90,000 | \$ | - | \$ | 90,018 | \$ | 18 |
| Travel |  | 385,000 |  | 314,691 |  | $(70,309)$ |  | 313,993 |  | $(71,007)$ |
| Conference Calls |  | 31,950 |  | 31,950 |  | - |  | 31,500 |  | (450) |
| Total Meeting Expenses | \$ | 506,950 | \$ | 436,641 | \$ | $(70,309)$ | \$ | 435,511 | \$ | $(71,439)$ |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | 638,085 | \$ | 804,652 | \$ | 166,567 | \$ | 955,450 | \$ | 317,365 |
| Office Rent |  | - |  | - |  | - |  | - |  | - |
| Office Costs |  | 139,135 |  | 143,099 |  | 3,964 |  | 152,386 |  | 13,251 |
| Professional Services |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | 500 |  | 500 |  | - |  | 500 |  | - |
| Depreciation |  | 228,000 |  | 298,743 |  | 70,743 |  | 228,000 |  | - |
| Total Operating Expenses | \$ | 1,005,720 | \$ | 1,246,994 | \$ | 241,274 | \$ | 1,336,336 | \$ | 330,616 |
| Total Direct Expenses | \$ | 4,903,304 | \$ | 5,366,024 | \$ | 462,720 | \$ | 5,456,456 | \$ | 553,152 |
| Indirect Expenses | \$ | 3,570,148 | \$ | 4,167,869 | \$ | 597,721 | \$ | 4,149,598 | \$ | 579,449 |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total Expenses (B) | \$ | 8,473,452 | \$ | 9,533,893 | \$ | 1,060,441 | \$ | 9,606,054 | \$ | 1,132,601 |
| Change in Assets | \$ | $(122,854)$ | \$ | $(1,185,803)$ | \$ | $(1,062,949)$ | \$ | 219,696 | \$ | 342,550 |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |
| Depreciation |  | $(228,000)$ |  | $(298,743)$ |  | $(70,743)$ |  | $(228,000)$ |  | - |
| Computer \& Software CapEx |  | - |  | - |  | - |  | 200,000 |  | 200,000 |
| Furniture \& Fixtures CapEx |  | - |  | - |  | - |  | - |  | - |
| Equipment CapEx |  | - |  | - |  | - |  | - |  | - |
| Leas ehold Improvements |  | - |  | - |  | - |  | - |  | - |
| Allocation of Fixed Assets | \$ | 105,146 | \$ | 37,879 | \$ | $(67,267)$ |  | 247,696 | \$ | 142,550 |
| Inc(Dec) in Fixed Assets ( $C$ ) | \$ | $(122,854)$ | \$ | $(260,864)$ | \$ | $(138,010)$ | \$ | 219,696 | \$ | 342,550 |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ | 8,350,598 | \$ | 9,273,029 | \$ | 922,431 | \$ | 9,825,750 | \$ | 1,475,151 |
| FTES |  | 18.99 |  | 19.59 |  | 0.60 |  | 19.70 |  | 0.71 |

## Summary of Variances by Category - 2015 Budget Compared to 2014 Budget

- Personnel - The increase in personnel expense is primarily due to the transfer of one FTE from another department in 2014, partially offset by an increase in the across-the-board FTE adjustment to account for attrition and hiring delays-from $4 \%$ in 2014 to $6 \%$ in 2015. Payroll tax expenses are increasing at a slightly higher percentage than the other expense categories due to a higher maximum salary subject to FICA taxes.
- Meetings, Travel and Conferencing Expenses - The decrease in travel expenses is based on prior year actual and projected 2014 costs.
- Consultants and Contracts - The increase is for (1) contracts related to vegetation research (FAC003), (2) additional software application development and support requirements, and (3) maintenance for $\mathrm{pc}-\mathrm{GAR}$.
- Indirect Expenses and Allocation of Fixed Assets - Indirect expenses and allocation of fixed assets is higher due to higher administrative services expenses to be allocated to the direct programs, as explained on page xxi.


## Reliability Risk Management

NERC's Reliability Risk Management (RRM) group carries out the ERO's statutory responsibility to perform assessments (real-time or near-real-time) of the reliability and adequacy of the BES, including identifying potential issues of concern relating to system, equipment, entity, and human performance that may indicate the need to develop new or modified Reliability Standards. RRM has two departments: (1) Situation Awareness and (2) Event Analysis. These departments are responsible for four primary functions: (1) BES awareness; (2) event analysis and determination of root and contributing causes; (3) assessment of human performance challenges that affect BES reliability and identification of improvement opportunities; and (4) support of the NERC Operating Committee.

RRM's functions and resources are directly focused on proactive awareness of BES conditions and all events over a threshold of certain risk or impact. Through awareness and continuous assessment, RRM identifies potential reliability risks to the BES. RRM analyzes events in detail, addresses the most significant risks to BES reliability, and ensures that industry is well informed of system events, emerging trends, risk analysis, and lessons learned. Through performing these functions, RRM provides data and analysis to inform the other aspects of NERC's statutory functions. The group also provides strategic direction for using risk-based concepts in planning and executing its responsibilities.

## Situation Awareness Department

| Situation Awareness (in whole dollars) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 Budget |  | 2015 Budget |  | Increase <br> (Decrease) |  |
| Total FTEs |  | 6.24 |  | 6.10 |  | (0.14) |
| Direct Expenses | \$ | 2,891,092 | \$ | 2,446,801 | \$ | $(444,292)$ |
| Indirect Expenses | \$ | 1,173,129 | \$ | 1,284,901 | \$ | 111,771 |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - |
| Inc(Dec) in Fixed Assets |  | 519,043 |  | $(84,800)$ |  | $(603,843)$ |
| TOTAL BUDGET | \$ | 4,583,264 | \$ | 3,646,902 | \$ | $(936,363)$ |

## Background and Scope

The ERO enhances BPS situation awareness by having Reliability Coordinators provide near-real-time operating information for their respective footprints to FERC, NERC, and the Regional Entities. This is a way to gauge the reliability of the interconnections and monitor parameters indicative of a developing crisis. The ERO monitors present conditions on the BPS and provides leadership coordination, technical expertise, and assistance to industry in responding to events.

## Stakeholder Engagement and Benefit

The Situation Awareness department works with registered entities to monitor conditions on the highvoltage transmission lines, associated substations, and large generators using various software tools and applications. NERC coordinates with Regional Entities and registered entities to notify them of various types of disturbances (hurricanes, tornados, earthquakes, solar flares, etc.) that could negatively impact the BES. NERC relies on Regional Entity staff to facilitate communications between NERC and registered
entities. Additionally, when significant BES disturbances occur, NERC facilitates the coordination of communication between registered entities and applicable governmental authorities.

## Key Situation Awareness Efforts Underway in 2014

Several reliability-related situation awareness and monitoring tools will undergo enhancement, replacement, streamlining, or adjustment in sponsorship by the end of 2014. Similar to the successful transition of the Interchange Distribution Calculator (IDC) to industry sponsorship, the North American Synchrophasor Initiative will no longer be sponsored, funded, or managed by NERC by the end of 2014.

Situation Awareness is focused on the following in 2014: (1) operation and maintenance of Situation Awareness for NERC, FERC, and Regions, Version 2 (SAFNRv2) software application used for monitoring; (2) replacement of the current secure alert tool with a streamlined alert process that will notify industry via email and direct entity representatives to the NERC alerts page for public alerts and to the ES-ISAC portal for confidential, non-public alerts; and (3) transfer of NERCnet (Frame Relay Contract) Interconnection Security Network (ISN) to the Eastern Interconnection Data Sharing Network consortium.

## 2015 Goals and Deliverables

In 2015, Situation Awareness will seek to accomplish several specific goals and objectives as part of the strategic focus of the ERO Enterprise:

1. Ensure that the ERO is aware of all BES events above a threshold of impact.
2. Ensure the sharing of information and data to facilitate wide-area situational awareness.
3. During crisis situations, facilitate the exchange of information among industry, Regions, and U.S. and Canadian governments.
4. Keep industry informed of emerging reliability threats and risks to the BES, including any expected actions.
5. Conduct the annual NERC Monitoring and Situational Awareness Conference and Human Performance Conference.
6. Enhance tracking of notification of expected actions in response to emerging actions to promote greater industry accountability.
7. Issue timely updates regarding progress toward resolving issues identified in Recommendations and Essential Actions.

Situation Awareness utilizes the following reliability-related tools to support department activities:

## Resource Adequacy (ACE Frequency) Tool

This software application provides continuous monitoring of key resource adequacy performance metrics, including pre-established thresholds and limits defined in standards. It alerts Reliability Coordinators and resource subcommittees to conditions that could result in critical inadequacies, such as major tie errors, inaccurate load forecasts, and inadequate frequency response.

## Inadvertent Interchange

This tool facilitates the entering of monthly scheduling data and submittal of monthly inadvertent performance standards reports to NERC. It also assists in the monitoring and resolution of reliability issues originated by inadvertent interchange imbalances.

## Frequency Monitoring and Analysis Tool

This tool detects frequency events and captures key frequency response information for each interconnection.

## Intelligent Alarms Tool

This tool detects short-term and long-term frequency deviations using data transmitted to NERC by the Balancing Authorities. When coupled with the FNet ${ }^{19}$ and Frequency Monitoring and Analysis tools, this tool allows immediate differentiation of the cause of a frequency deviation-a generator trip or a scheduling error.

## Automated Reliability Reports

Automated Reliability Reports are daily and monthly summaries of historical load generation resource adequacy and control performance for the three interconnections. These reports are used for monitoring frequency response and performing trending analysis. This tool relies on data supplied to the Resource Adequacy Tool.

## Area Interchange Error Monitoring Tool

This is an automatic data collection tool for post-analysis of frequency excursions. It is used in major system disturbances as part of the frequency response analysis.

## Other Monitoring Tools

The company may procure additional, more granular tools to assist in maintaining situation awareness.

## Resource Requirements

## Personnel

No additional personnel are projected for the Situation Awareness department in 2015.

## Contractor Expenses

The overall funding of approximately $\$ 1.1 \mathrm{M}$ for contractors and consultants (which includes the cost of the tools set forth above) to support the Situation Awareness department in 2015 is approximately $\$ 211.8 \mathrm{k}$ below 2014 budget levels. The detailed 2015 contractor and consulting budget for the Situation Awareness department is set forth in Exhibit C, together with a comparison to 2014 budgeted amounts.

[^13]| Statement of Activities and Fixed Assets Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SITUATION AWARENESS |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{gathered} 2014 \\ \text { Budget } \\ \hline \end{gathered}$ |  | $2014$ <br> rojection |  | riance <br> Projection <br> 4 Budget <br> (Under) |  | $\begin{aligned} & 2015 \\ & \text { 3udget } \\ & \hline \end{aligned}$ |  | iance <br> Budget <br> Budget <br> Under) |
| Funding |  |  |  |  |  |  |  |  |  |  |
| NERC Assessments | \$ | 4,493,115 |  | 4,493,115 | \$ | (0) | \$ | 3,588,981 | \$ | (904,134) |
| Penalty Sanctions |  | 14,192 |  | 14,192 |  | 0 |  | 57,774 |  | 43,582 |
| Total NERC Funding | \$ | 4,507,307 | \$ | 4,507,307 | \$ | (0) | \$ | 3,646,755 | \$ | (860,552) |
| Third-Party Funding |  | - |  | - |  | - |  | - |  | - |
| Testing Fees |  | - |  | - |  | - |  | - |  | - |
| Services \& Software |  | - |  | - |  | - |  | - |  | - |
| Workshops |  | 75,000 |  | - |  | $(75,000)$ |  | - |  | $(75,000)$ |
| Interest |  | 957 |  | 127 |  | (830) |  | 147 |  | (810) |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Total Funding (A) | \$ | 4,583,264 | \$ | 4,507,434 | \$ | $(75,830)$ | \$ | 3,646,902 | \$ | $(936,363)$ |
| Expenses |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 915,216 | \$ | 848,082 | \$ | $(67,134)$ | \$ | 849,802 | \$ | $(65,414)$ |
| Payroll Taxes |  | 60,207 |  | 62,308 |  | 2,101 |  | 55,831 |  | $(4,376)$ |
| Benefits |  | 109,501 |  | 103,873 |  | $(5,628)$ |  | 112,106 |  | 2,605 |
| Retirement Costs |  | 104,293 |  | 87,916 |  | $(16,377)$ |  | 95,226 |  | $(9,067)$ |
| Total Personnel Expenses | \$ | 1,189,217 | \$ | 1,102,179 | \$ | $(87,038)$ | \$ | 1,112,965 | \$ | $(76,252)$ |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 171,000 | \$ | 5,000 | \$ | $(166,000)$ | \$ | 5,000 | \$ | $(166,000)$ |
| Travel |  | 28,020 |  | 47,000 |  | 18,980 |  | 45,882 |  | 17,862 |
| Conference Calls |  | 4,000 |  | 792 |  | $(3,208)$ |  | 2,610 |  | $(1,390)$ |
| Total Meeting Expenses | \$ | 203,020 | \$ | 52,792 | \$ | $(150,228)$ | \$ | 53,492 | \$ | $(149,528)$ |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | 1,289,108 | \$ | 1,445,337 | \$ | 156,229 | \$ | 1,077,321 | \$ | $(211,787)$ |
| Office Rent |  | - |  | - |  | - |  | - |  | - |
| Office Costs |  | 47,750 |  | 41,070 |  | $(6,680)$ |  | 41,025 |  | $(6,725)$ |
| Professional Services |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | 500 |  | - |  | (500) |  | 500 |  | - |
| Depreciation |  | 161,498 |  | 718 |  | $(160,779)$ |  | 161,498 |  | - |
| Total Operating Expenses | \$ | 1,498,856 | \$ | 1,487,125 | \$ | $(11,730)$ | \$ | 1,280,343 | \$ | (218,512) |
| Total Direct Expenses | \$ | 2,891,092 | \$ | 2,642,096 | \$ | $(248,996)$ | \$ | 2,446,801 | \$ | $(444,292)$ |
| Indirect Expenses | \$ | 1,173,129 | \$ | 1,306,315 | \$ | 133,186 | \$ | 1,284,901 | \$ | 111,771 |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total Expenses (B) | \$ | 4,064,222 | \$ | 3,948,412 | \$ | $(115,810)$ | \$ | 3,731,701 | \$ | $(332,520)$ |
| Change in Assets | \$ | 519,043 | \$ | 559,022 | \$ | 39,980 | \$ | $(84,800)$ | \$ | $(603,843)$ |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |
| Depreciation |  | $(161,498)$ |  | (718) |  | 160,779 |  | $(161,498)$ |  | - |
| Computer \& Software CapEx |  | 645,990 |  | - |  | $(645,990)$ |  | - |  | $(645,990)$ |
| Furniture \& Fixtures CapEx |  | - |  | - |  | - |  | - |  | - |
| Equipment CapEx |  | - |  | - |  | - |  | - |  | - |
| Leasehold Improvements |  | - |  | - |  | - |  | - |  | - |
| Allocation of Fixed Assets | \$ | 34,550 | \$ | 11,872 |  | $(22,678)$ |  | 76,698 |  | 42,147 |
| Inc(Dec) in Fixed Assets ( $C$ ) | \$ | 519,043 | \$ | 11,154 | \$ | $(507,889)$ | \$ | $(84,800)$ | \$ | $(603,843)$ |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ | 4,583,264 | \$ | 3,959,566 | \$ | $(623,699)$ | \$ | 3,646,902 | \$ | $(936,363)$ |
| FTEs |  | 6.24 |  | 6.14 |  | (0.10) |  | 6.10 |  | (0.14) |

## Summary of Variances by Category - 2015 Budget Compared to 2014 Budget

- Funding - The decrease in workshop fees is due to the transfer of the synchrophasor technology to the private sector. The 2014 budget for workshop fees was for the potential continued sponsorship of the North American Synchrophasor Initiative (NASPI) workshops during the transition.
- Personnel - The reduction in salaries, payroll taxes, and retirement costs is due to an increase in the across the board FTE adjustment to account for attrition and hiring delays from 4\% in 2014 to $6 \%$ in 2015. The increase in benefits is due to budgeted market increases in medical and dental plan costs.
- Meetings, Travel, and Conferencing Expenses - The increase in Travel Expenses reflects budgeted staffing levels and expanded participation in cross-departmental efforts with RAPA and Standards. The decrease in meetings is due to allocation of the quarterly standing committee meetings to other departments and the transfer of costs associated with the Grid Security Conference to the CID program.
- Consultants and Contracts - The decrease is due to a reduction in costs related to SAFNR, NERCnet, and the Secure Alerting System, offset by an increase in the cost of Reliability Tools. The increase in Reliability Tools is due to new costs for tool additions, offset by a reduction in costs due to the elimination of Automated Reliability Reports and AIE Monitoring tools.
- Office Costs - The slight decrease is due to lower telecommunications costs on a per-FTE basis.
- Indirect Expenses and Fixed Assets - Indirect expenses and allocation of fixed assets is higher due to higher administrative services expenses to be allocated to the direct programs as explained on page 22. Total Fixed Assets is lower due to the transfer of application software development funding to Information Technology and Fixed Assets.


## Event Analysis Department

|  | Event Analysis (in whole dollars) <br> 2014 Budget |  | 2015 Budget |  | Increase (Decrease) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total FTEs |  | 9.60 |  | 9.38 |  | (0.22) |
| Direct Expenses | \$ | 2,384,069 | \$ | 2,303,098 | \$ | $(80,969)$ |
| Indirect Expenses | \$ | 1,804,814 | \$ | 1,975,798 | \$ | 170,984 |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - |
| Inc(Dec) in Fixed Assets | \$ | $(140,512)$ | \$ | $(75,728)$ | \$ | 64,784 |
| TOTAL BUDGET | \$ | 4,048,371 | \$ | 4,203,169 | \$ | 154,798 |

## Background and Scope

The Event Analysis department performs assessments of the reliability and adequacy of the BES. This includes identifying potential issues of concern related to system, equipment, entity, and human performance that may indicate a need to develop remediation strategies, action plans, or data used to revise Reliability Standards or consider new Reliability Standards. The department analyzes and determines the cause of the events, promptly assures tracking of corrective actions to prevent recurrence, and provides lessons learned to the industry. Event Analysis ensures that reporting and analysis are consistent to allow wide-area assessment of trends and risks. The department analyzes all reportable events for sequence of events, root cause, risk to reliability, and mitigation and keeps the industry well informed of system events, emerging trends, risk analysis, lessons learned, and expected actions.

The Event Analysis department also includes budgeted resources for the investigation team. These resources are currently managed in the Compliance Analysis and Certification department and are used to review formal complaints and conduct non-public compliance investigations. They are also used to assist in the review of registered entity compliance assessments to verify that compliance gaps are assessed in all reportable events. The event investigation group supports NERC's statutory responsibility of developing Reliability Standards and assessing the reliability and adequacy of the BES, as well as monitoring and enforcing compliance with mandatory Reliability Standards.

Additional resources within this department focus on identifying human-error risks and those precursor factors that allow human error to impact system reliability. The department educates industry regarding risks, precursors, and mitigation methods. Resources also support compliance and standards training initiatives, as well as trending and analysis to identify emerging reliability risks to the BES. These efforts are conducted in collaboration with industry human performance projects, including WECC's Human Performance Working Group, the NERC Operating Committee's Event Analysis Subcommittee, the Institute of Nuclear Power Operations (INPO), and the Electric Power Research Institute.

## Stakeholder Engagement and Benefit

The Event Analysis department coordinates event analyses to support the use of collective resources, consistency in analysis, and timely delivery of event analysis reports. ${ }^{20}$ The ERO disseminates to the

[^14]electric industry lessons learned and other useful information obtained from or as a result of event analysis. The Event Analysis team has conducted in-depth analyses of over 135 events per year. In 2013, the team also conducted calls facilitated by the Regional Entities with over 70 registered entities to discuss in detail and finalize root and contributing causes for the categorized events analyzed. Major analysis to date includes assessment of Energy Management System (EMS) outages and the publication of an updated advisory with recommendations and actions to be taken upon loss of EMS and the identification of specific equipment failures and the associated remediation.

## Collaboration with the Trade Associations and Forums

The activities of the North American Transmission Forum (NATF), the North American Generator Forum (NAGF), trade associations, and other industry groups are expected to compliment ERO Enterprise activities and limit the need to add incremental resources to the NERC and Regional Entity business plans and budgets that might otherwise be required in the absence of these forums.

In 2013, NERC entered into a memorandum of understanding (MOU) with the NATF to help ensure that the common objectives of each organization are achieved in the most efficient and effective manner. There is mutual agreement, with no commitment of funds, to coordinate sharing of selected information, engage in the development and maintenance of mutual reliability initiatives, and provide periodic reports to pertinent audiences. A similar agreement is under development with the NAGF in 2014.

Joint reliability initiative projects between the NATF and NERC that are expected to continue into 2015 include protection systems misoperations reduction, physical security, various activities related to reliability assurance initiatives, improvement of modeling practices, and complementary efforts on addressing the GMD challenges.

## 2015 Goals and Deliverables

In 2015, the Event Analysis department will seek to accomplish several specific goals and objectives as part of the strategic focus of the ERO Enterprise:

1. Work with the Regional Entities to obtain and review information from registered entities regarding qualifying events and disturbances in order to advance awareness of events above a threshold level; facilitate analysis of root and contributing causes, risks to reliability, wide-area assessments, and remediation efforts; and disseminate information regarding events in a timely manner.
2. Ensure that all reportable events (approximately 135 annually) are analyzed for sequence of events, root cause, risk to reliability, and mitigation.
3. Refine risk-based methodologies to support better identification of reliability risks, including the use of more sophisticated cause codes for analysis.
4. Ensure consistency in reporting and analysis to support wide-area assessments of significant reliability trends and risks.
5. Conduct training (webinars, workshops, and conference support) to inform industry and the ERO of lessons learned, root cause analysis, cause coding, human performance, and cold weather preparedness and recommendations.
6. Develop reliability recommendations and alerts as needed.
7. Track industry accountability for critical reliability recommendations.
8. Ensure that industry is well informed of system events, emerging trends, risk analysis, lessons learned, and expected actions.
9. Conduct major event analysis and reporting of major findings and recommendations that will improve reliability.
10. Advance the quality and usefulness of reliability assessments and event analysis data.

The Event Analysis department will also support several of the top-priority reliability risk projects during 2015-2016, as identified and described under the Reliability Assessment and Performance Analysis department section of this business plan and budget.

## Resource Requirements

## Personnel

No additional personnel are planned to be added to the Event Analysis department in 2015.

## Contractor Expenses

No additional consulting and contractor support is budgeted in 2015.

| Statement of Activities and Fixed Assets Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EVENT ANALYSIS |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{gathered} 2014 \\ \text { Budget } \\ \hline \end{gathered}$ |  | 2014 <br> rojection |  | riance <br> rojection <br> 4 Budget <br> (Under) |  | $\begin{gathered} 2015 \\ \text { Budget } \\ \hline \end{gathered}$ |  | iance <br> Budget <br> Budget <br> Under) |
| Funding |  |  |  |  |  |  |  |  |  |  |
| ERO Funding |  |  |  |  |  |  |  |  |  |  |
| NERC Assessments | \$ | 3,975,065 | \$ | 3,975,065 | \$ | 0 | \$ | 4,066,804 | \$ | 91,740 |
| Penalty Sanctions |  | 21,834 | \$ | 21,834 |  |  |  | 88,839 |  | 67,005 |
| Total NERC Funding | \$ | 3,996,898 | \$ | 3,996,899 | \$ | 0 | \$ | 4,155,643 | \$ | 158,745 |
| Third-Party Funding |  | - |  | - |  | - |  | - |  | - |
| Testing Fees |  | - |  | - |  | - |  | - |  | - |
| Services \& Software |  | - |  | - |  | - |  | - |  | - |
| Workshops |  | 50,000 |  | 50,000 |  | - |  | 47,300 |  | $(2,700)$ |
| Interest |  | 1,473 |  | 197 |  | $(1,276)$ |  | 226 |  | $(1,247)$ |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Total Funding (A) | \$ | 4,048,371 | \$ | 4,047,096 | \$ | $(1,275)$ | \$ | 4,203,169 | \$ | 154,798 |
| Expenses |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 1,470,290 | \$ | 1,441,975 | \$ | $(28,315)$ | \$ | 1,447,159 | \$ | $(23,131)$ |
| Payroll Taxes |  | 91,480 |  | 97,486 |  | 6,006 |  | 92,831 |  | 1,351 |
| Benefits |  | 168,463 |  | 156,895 |  | $(11,568)$ |  | 173,284 |  | 4,821 |
| Retirement Costs |  | 167,286 |  | 154,123 |  | $(13,163)$ |  | 162,193 |  | $(5,093)$ |
| Total Personnel Expenses | \$ | 1,897,519 | \$ | 1,850,479 | \$ | $(47,040)$ | \$ | 1,875,467 | \$ | $(22,052)$ |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 67,000 | \$ | 95,000 | \$ | 28,000 | \$ | 79,228 | \$ | 12,228 |
| Travel |  | 155,000 |  | 109,000 |  | $(46,000)$ |  | 114,500 |  | $(40,500)$ |
| Conference Calls |  | 31,864 |  | 10,000 |  | $(21,864)$ |  | 10,000 |  | $(21,864)$ |
| Total Meeting Expenses | \$ | 253,864 | \$ | 214,000 | \$ | $(39,864)$ | \$ | 203,728 | \$ | $(50,136)$ |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Office Rent |  | - |  | - |  | - |  | - |  | - |
| Office Costs |  | 38,519 |  | 45,718 |  | 7,199 |  | 29,736 |  | $(8,783)$ |
| Professional Services |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | 500 |  | - |  | (500) |  | 500 |  | - |
| Depreciation |  | 193,667 |  | 704 |  | $(192,962)$ |  | 193,667 |  | - |
| Total Operating Expenses | \$ | 232,686 | \$ | 46,422 | \$ | $(186,264)$ | \$ | 223,903 | \$ | $(8,783)$ |
| Total Direct Expenses | \$ | 2,384,069 | \$ | 2,110,901 | \$ | $(273,168)$ | \$ | 2,303,098 | \$ | $(80,970)$ |
| Indirect Expenses | \$ | 1,804,814 | \$ | 2,021,172 | \$ | 216,358 | \$ | 1,975,798 | \$ | 170,984 |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total Expenses (B) | \$ | 4,188,883 | \$ | 4,132,073 | \$ | $(56,810)$ | \$ | 4,278,897 | \$ | 90,014 |
| Change in Assets | \$ | $(140,512)$ | \$ | $(84,977)$ | \$ | 55,535 | \$ | $(75,728)$ | \$ | 64,784 |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |
| Depreciation |  | $(193,667)$ |  | (704) |  | 192,962 |  | $(193,667)$ |  | - |
| Computer \& Software CapEx |  | - |  | - |  | - |  | - |  | - |
| Furniture \& Fixtures CapEx |  | - |  | - |  | - |  | - |  | - |
| Equipment CapEx |  | - |  | - |  | - |  | - |  | - |
| Leasehold Improvements |  | - |  | - |  | - |  | - |  | - |
| Allocation of Fixed Assets | \$ | 53,154 | \$ | 18,369 |  | $(34,785)$ |  | 117,939 |  | 64,784 |
| Inc(Dec) in Fixed Assets ( C ) | \$ | $(140,512)$ | \$ | 17,665 | \$ | 158,177 | \$ | $(75,728)$ | \$ | 64,784 |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ | 4,048,371 | \$ | 4,149,738 | \$ | 101,367 | \$ | 4,203,169 | \$ | 154,798 |
| FTES |  | 9.60 |  | 9.50 |  | (0.10) |  | 9.38 |  | (0.22) |

## Summary of Variances by Category - 2015 Budget Compared to 2014 Budget

- Personnel - Salaries and retirement expenses are projected to remain approximately the same in 2015. The slight variances are the result of an increase in the across-the-board FTE adjustment to account for attrition and hiring delays-from 4\% in 2014 to 6\% in 2015. The percentage increase in payroll taxes is due to a higher maximum salary subject to FICA taxes. Benefits are projected to be higher due to a projected market increase in health and dental plan costs.
- Meetings, Travel, and Conferencing Expenses - A slight increase in meeting expenses is due to greater participation in RAPA and Standards activities. RRM supports various activities with technical experts and subject matter experts. The decrease in travel and conferencing expenses is based on 2013 actual and projected 2014 costs.
- Office Costs - The decrease is due to lower telecommunications costs on a per-FTE basis.
- Indirect Expenses and Allocation of Fixed Assets - Indirect expenses and allocation of fixed assets is higher due to higher administrative services expenses to be allocated to the direct programs, as explained on page xxii.


## Critical Infrastructure

| Critical Infrastructure Department (in whole dollars) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 Budget |  | 2015 Budget |  | Increase <br> (Decrease) |  |
| Total FTEs |  | 12.48 |  | 8.44 |  | (4.04) |
| Direct Expenses | \$ | 3,092,349 | \$ | 2,612,056 | \$ | $(480,293)$ |
| Indirect Expenses | \$ | 2,346,259 | \$ | 1,777,797 | \$ | $(568,462)$ |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - |
| Inc(Dec) in Fixed Assets | \$ | 69,101 | \$ | 106,120 | \$ | 37,019 |
| TOTAL BUDGET | \$ | 5,507,709 | \$ | 4,495,972 | \$ | $(1,011,737)$ |

## Background and Scope

NERC's Critical Infrastructure Department (CID) supports efforts to develop and administer critical infrastructure standards. CID conducts security outreach visits, provides training and exercise opportunities, and coordinates between industry and governmental entities on critical infrastructure protection (CIP) matters. The department accomplishes these activities through active CIP Standards Drafting Team participation and through programs such as the Security Reliability Program (SRP), ${ }^{21}$ the annual Grid Security Conference (GridSecCon), and the biennial Grid Security Exercise (GridEx). The department also leverages public-private partnerships to examine CIP policy issues and provides stafflevel support to NERC's Critical Infrastructure Protection Committee (CIPC), an industry-led committee comprised of industry experts in the areas of cybersecurity, physical security, and operational security.

## Stakeholder Engagement and Benefit

CID focuses its efforts on building partnerships and providing outreach to registered entities on emerging issues and best practices; in turn, the department relies on industry participation to strengthen, validate, and execute its programs. CID also coordinates with stakeholders to develop policy positions and determine the best strategies for program implementation. The department's continued coordination with government, across sectors, and through various other public-private partnerships also helps to keep stakeholders informed of policy activities on a national level and provides various opportunities for stakeholder comment and expertise. Through CIPC, industry experts also work together to discuss common concerns and develop policy recommendations to address those concerns.

[^15]
## Key Critical Infrastructure Efforts Underway in 2014

## CIP Standards Support

The Critical Infrastructure Department continues to support the activities involved with Responsible Entities' transition from CIP Version 3 to Version 5. ${ }^{22}$ Additionally, the department supported the Standards department by providing subject matter expertise to draft a physical security standard, as well as support for addressing FERC Order No. 791 directives.

## Security Reliability Program (SRP)

The SRP is a continuation of the Sufficiency Review Program from previous years. The program has been modified to focus on transitioning from CIP Version 3 implementation to CIP Version 5 implementation and includes discussion of issues raised during the CIP Transition Study conducted in 2013-2014. The program continues to provide timely and actionable advice to entities and their security and compliance programs in support of the CIP standards.

## GridEx III

In 2014, the department is following up on 2013's GridEx II distributed play and executive tabletop lessons learned and using them to plan for the 2015 GridEx III. This biennial security exercise focuses on analyzing industry's response to a physical and cybersecurity scenarios. The distributed play exercise and executive tabletop activities aim to: (1) exercise the electric industry's readiness to respond to a security incident, incorporating lessons learned; (2) review existing command, control, and communication plans and tools for NERC and its stakeholders; (3) identify potential improvements in cybersecurity and physical security plans, programs, and responder skills; and (4) explore senior leadership policy decisions and triggers in response to a coordinated cyber and physical event of national significance with long-term grid reliability issues.

## GridSecCon 2014

GridSecCon 2014 will be NERC's fourth annual conference focused on physical security and cybersecurity issues facing the Electricity Sub-sector. NERC holds the annual conference to: (1) build on NERC's mission to ensure the reliability of the North American BES through education and training; (2) deliver expert analysis on emerging physical security and cybersecurity threats and vulnerabilities; (3) discuss potential solutions to emerging industrial control system security issues; (4) provide a strategic focus on related public-private partnerships; and (5) provide information regarding ES-ISAC activities and participant benefits.

## Policy and Coordination

The department has been addressing policy issues from the 2013 Executive Order and Presidential Policy Directive and continues to monitor and contribute to these activities throughout 2014 and into 2015. In addition, the department continues to support the Policy and External Affairs department in tracking and analyzing legislation and congressional hearings, developing testimony, and completing other policyrelated activities. CID also collaborates with NERC's government and private sector partners through both formal and informal structures.

## CIPC

The CIPC fosters information sharing, provides industry leadership, and acts as a forum to exchange ideas pertaining to CIP security. In addition to analyzing reliability issues, the CIPC holds security briefings and

[^16]workshops throughout the year to educate industry about items such as physical security assessments and penetration testing. CIPC conducts its work by establishing task forces or working groups to address critical and timely security issues. Some existing working groups include: (1) Bulk Electric System Security Metrics Working Group; (2) Physical Response Guideline V3.0 Update Task Force; (3) Cyber Attack Tree Task Force; (4) Grid Exercise Working Group (GEWG) (which is instrumental in planning the scenario for NERC's GridEx series, as well as following up on lessons learned from the exercises); (5) Compliance Enforcement and Input Working Group; (6) Security Training Working Group; and (7) Physical Security Working Group.

These CIPC task forces and working groups continue their efforts to examine emerging security topics.

## 2015 Goals and Deliverables

In 2015, the Critical Infrastructure department will seek to accomplish several specific goals and objectives as part of the strategic focus of the ERO Enterprise:

1. Hold the annual GridSecCon, which focuses on physical security and cybersecurity issues facing the Electricity Sub-sector and builds on NERC's mission to ensure the reliability of the North American BES through education and training.
2. Conduct GridEx III, which focuses on analyzing industry's response to a physical security and cybersecurity scenario and gathering lessons learned.
3. Coordinate with government departments and agencies on critical infrastructure policy issues.
4. Support NERC External Affairs and CEO in preparations for public presentations and follow-on actions.
5. Support CIP standards development and implementation through outreach presentations, webinars, and other training opportunities.
6. Work with CIPC to address emerging risk issues and support risk projects in 2015, as needed.

## Resource Requirements

## Personnel

No additional personnel have been budgeted for this department; budgeted staffing is reduced from 12.48 FTEs in the 2014 budget to 8.44 FTEs in the 2015 budget due primarily to the transfer of CIP auditors to the Regional Entity Assurance and Oversight Department.

## Contractor Expenses

The 2015 budget includes funds for contractor support for GridExIII and CIPC support, which is in line with prior expenditures and reflects the fact that GridEx was not conducted or budgeted in 2014.

| Statement of Activities and Fixed Assets Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CRITICAL INFRASTRUCTURE DEPARTMENT |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{gathered} 2014 \\ \text { Budget } \\ \hline \end{gathered}$ |  | 2014 <br> rojection |  | ariance <br> Projection <br> 14 Budget <br> (Under) |  | $\begin{aligned} & 2015 \\ & \text { 3udget } \end{aligned}$ |  | ariance <br> Budget <br> 4 Budget <br> (Under) |
| Funding |  |  |  |  |  |  |  |  |  |  |
| NERC Assessments | \$ | 5,432,411 |  | 5,428,058 | \$ | $(4,353)$ | \$ | 4,343,333 | \$ | $(1,089,078)$ |
| Penalty Sanctions |  | 28,383 |  | 28,383 |  | - |  | 79,936 |  | 51,553 |
| Total NERC Funding | \$ | 5,460,794 | \$ | 5,456,441 | \$ | $(4,353)$ | \$ | 4,423,269 | \$ | (1,037,525) |
| Third-Party Funding |  | - |  | - |  | - |  | - |  |  |
| Testing Fees |  | - |  | - |  | - |  | - |  | - |
| Services \& Software |  | - |  | - |  | - |  | - |  | - |
| Workshops |  | 45,000 |  | 45,000 |  | - |  | 72,500 |  | 27,500 |
| Interest |  | 1,914 |  | - |  | $(1,914)$ |  | 203 |  | $(1,711)$ |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Total Funding (A) | \$ | 5,507,708 | \$ | 5,501,441 | \$ | $(6,267)$ | \$ | 4,495,972 | \$ | (1,011,736) |
| Expenses |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 1,883,806 | \$ | 1,274,053 | \$ | $(609,753)$ | \$ | 1,423,791 | \$ | $(460,015)$ |
| Payroll Taxes |  | 113,362 |  | 81,027 |  | $(32,335)$ | \$ | 85,220 |  | $(28,142)$ |
| Benefits |  | 219,000 |  | 132,612 |  | $(86,388)$ | \$ | 152,786 |  | $(66,214)$ |
| Retirement Costs |  | 214,632 |  | 125,862 |  | $(88,770)$ | \$ | 159,808 |  | $(54,824)$ |
| Total Personnel Expenses | \$ | 2,430,800 | \$ | 1,613,554 | \$ | $(817,246)$ | \$ | 1,821,605 | \$ | $(609,195)$ |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 145,000 | \$ | 145,000 | \$ | - | \$ | 133,134 | \$ | $(11,866)$ |
| Travel |  | 240,000 |  | 170,000 |  | $(70,000)$ | \$ | 188,358 |  | $(51,642)$ |
| Conference Calls |  | 32,574 |  | 5,000 |  | $(27,574)$ | \$ | 21,500 |  | $(11,074)$ |
| Total Meeting Expenses | \$ | 417,574 | \$ | 320,000 | \$ | $(97,574)$ | \$ | 342,992 | \$ | $(74,582)$ |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | 190,000 | \$ | 240,000 | \$ | 50,000 | \$ | 426,800 | \$ | 236,800 |
| Office Rent |  | - |  | - |  | - | \$ | - |  | - |
| Office Costs |  | 53,475 |  | 47,587 |  | $(5,888)$ | \$ | 20,158 |  | $(33,317)$ |
| Professional Services |  | - |  | - |  | - | \$ | - |  | - |
| Miscellaneous |  | 500 |  | - |  | (500) | \$ | 500 |  | - |
| Depreciation |  | - |  | 16,377 |  | 16,377 | \$ | - |  | - |
| Total Operating Expenses | \$ | 243,975 | \$ | 303,964 | \$ | 59,989 | \$ | 447,458 | \$ | 203,483 |
| Total Direct Expenses | \$ | 3,092,349 | \$ | 2,237,518 | \$ | $(854,831)$ | \$ | 2,612,056 | \$ | $(480,293)$ |
| Indirect Expenses | \$ | 2,346,259 | \$ | 1,667,999 | \$ | $(678,260)$ | \$ | 1,777,797 | \$ | $(568,462)$ |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total Expenses (B) | \$ | 5,438,608 | \$ | 3,905,517 | \$ | $(1,533,091)$ | \$ | 4,389,853 | \$ | $(1,048,755)$ |
| Change in Assets | \$ | 69,100 | \$ | 1,595,924 | \$ | 1,526,824 | \$ | 106,120 | \$ | 37,020 |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |
| Depreciation |  | - |  | $(16,377)$ |  | $(16,377)$ |  | - |  | - |
| Computer \& Software CapEx |  | - |  | - |  | - |  | - |  | - |
| Furniture \& Fixtures CapEx |  | - |  | - |  | - |  | - |  | - |
| Equipment CapEx |  | - |  | - |  | - |  | - |  | - |
| Leasehold Improvements |  | - |  | - |  | - |  | - |  | - |
| Allocation of Fixed Assets | \$ | 69,101 | \$ | 15,159 |  | $(53,942)$ |  | 106,120 |  | 37,019 |
| Inc(Dec) in Fixed Assets ( C ) | \$ | 69,101 | \$ | $(1,217)$ | \$ | $(70,318)$ | \$ | 106,120 | \$ | 37,019 |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ | 5,507,709 | \$ | 3,904,299 | \$ | $(1,603,410)$ | \$ | 4,495,972 | \$ | $(1,011,737)$ |
| FTEs |  | 12.48 |  | 7.84 |  | (4.64) |  | 8.44 |  | (4.04) |

## Summary of Variances by Category - 2015 Budget Compared to 2014 Budget

- Funding - The increase in workshop fees is based upon 2013 actual results for the Grid Security Conference.
- Personnel - The reduction in personnel expenses is primarily related to the transfer of (4) positions to other departments in 2014 and also due to an increase in the across-the-board FTE adjustment to account for attrition and hiring delays from 4\% in 2014 to 6\% in 2015.
- Meetings, Travel, and Conferencing Expenses - The reduction in travel expenses is due to the transfer of FTEs to other departments in 2014. The reductions in meetings and conferencing expenses is based upon prior year actual and projected 2014 costs.
- Consultants and Contracts - The increase is related to costs for the GridEx, which is held every other year.
- Office Costs - The decrease is due to lower telecommunications expenses, resulting from having fewer FTEs in the department and a lower cost per FTE.
- Indirect Expenses - The decrease in indirect expenses is due to a reduction in FTEs and in proportion to total FTEs in the statutory programs.


# Electricity Sector Information Sharing and Analysis Center (ESISAC) 



## Background and Scope

The ES-ISAC was formed in 1998 when the U.S. Secretary of Energy requested that NERC serve as the $I S A C^{23}$ for the electricity sub-sector. ${ }^{24}$ The ES-ISAC's primary function is the rapid and secure sharing of information with the electric industry and governmental entities regarding real and potential security threats to the electricity sector, as well as maintenance of the methods and tools used to avoid or mitigate the potential impact from these threats. ES-ISAC facilitates sector coordination, mitigation development, and mitigation delivery for physical security, cybersecurity, and all hazards events and is aligned to support ESCC intent under the National Infrastructure Protection Plan (NIPP).

In general, the ES-ISAC supports two functions: information sharing and analytics. These functions are vitally important to all other critical infrastructures and key resource sectors that have active ISACs. The ES-ISAC is a founding member of the National Council of ISACs and participates in daily coordination with its members to ensure effective collaboration. This close coordination is essential for addressing critical infrastructure protection and resilience within each sector, as well as the important interdependencies that exist among sectors.

The ES-ISAC develops alerts and notifications for distribution to registered entities. The ES-ISAC also utilizes its secure, private information-sharing portal to receive voluntary reports from industry members. This portal is designed with the unique ability to receive unattributed reports to increase information reporting.

The ES-ISAC also maintains a seat on the operations floor of the National Cybersecurity and Communications Integration Center (NCCIC) within the Department of Homeland Security (DHS). This

[^17]operations center is the hub for real-time, classified threat and vulnerability work, and the ES-ISAC serves a central private sector role in this operation. The NCCIC operations floor is where ES-ISAC personnel holding the appropriate security clearances analyze the threat and vulnerability component provided by the intelligence community to make initial determinations of potential BES impacts. The ES-ISAC maintains other information-sharing relationships throughout the U.S. and Canadian governments, including the DOE, Canadian Secret Intelligence Service, and U.S. Department of Defense. The ES-ISAC also coordinates information sharing with similar agencies in Australia, New Zealand, and the United Kingdom.

## Stakeholder Engagement and Benefit

The ES-ISAC directly benefits stakeholders through the following activities:

- Serving as a central coordination hub for electricity sector cyber risk and security information sharing, provision of mitigation advice, sector coordination support and authoritative reference material.
- Sharing information derived (declassified format) from classified threat and security vulnerability briefings that is otherwise not generally available.
- Information shared through the ES-ISAC enhances participant security assessments and capabilities.


## Key ES-ISAC Efforts Underway in 2014

In 2014 and into 2015, focus will remain on continued execution of capability maturation steps already underway, and process enhancements to ES-ISAC operations. For ES-ISAC, applied resources consist primarily of personnel and contractors who gather, analyze, and provide information regarding cybersecurity threats to industry through a secure communications portal, and the costs to operate and maintain that portal. Current capability maturation efforts include a portal update that will continue through 2015. Additionally, assessment support services and self-service assessment tool creation and refinement are planned for 2015. Having access to information regarding threats (including threats faced by other sectors, such as the financial and communications industries) and the ability to analyze the potential impact of these threats on the electric sector and rapidly share this information with industry enables the ES-ISAC to improve the security of the electricity sector.

## Maintaining Separation from Compliance and Enforcement

In February 2012, the Board of Trustees approved an ES-ISAC Policy Statement that established a separation between the ES-ISAC and NERC's compliance and enforcement program. In support of this policy and in furtherance of one of the FERC recommendations from an audit of NERC, in June 2013, NERC requested comments from stakeholders regarding the impact on NERC's compliance-related activities of the walling off of certain staff from ES-ISAC activities (this is further detailed in the ES-ISAC Policy Statement). In response to the request for comments, stakeholders generally expressed support for this policy. ${ }^{25}$ Commenters recommended even stronger separation of the ES-ISAC information-sharing function from NERC's compliance and enforcement function, including physical separation of ES-ISAC personnel from other NERC personnel, coupled with strong process management with explicit access restrictions from all NERC personnel. Commenters also recommended the adoption of standards of conduct and procedures similar to those governing separation of utility merchant and transmission functions, as well as a change in management reporting structure in which the ES-ISAC would report

[^18]directly to the NERC president and chief executive officer. In consideration of this input, NERC management undertook a number of initiatives, including:

- Separating the ES-ISAC from the Critical Infrastructure Department and having the ES-ISAC and the NERC chief security officer report directly to NERC's president and chief executive officer.
- Transferring CID auditors to the Regional Entity Assurance and Oversight Group which provides oversight of Regional Entity compliance functions. In addition to removing these auditors from the same department as ES-ISAC personnel, this transfer provides better functional alignment among the auditors and more efficient management of the compliance oversight and audit assurance function.
- Finalized and put in place a formal Employee Code of Conduct to further memorialize the existing separation of the ES-ISAC from Compliance Monitoring and Enforcement personnel. The Code of Conduct contains many of the principals incorporated in codes of conduct separating utility competitive and regulated operations.

Management also plans to exercise an option to acquire additional space in the company's Washington, D.C. office to physically separate the ES-ISAC from the company's other operations and restrict personnel access between operating areas and the ES-ISAC. In connection with the negotiation of that lease, management negotiated an option to lease the remaining space, which consists of approximately 6,200 rentable square feet on the $6^{\text {th }}$ floor, where the company's offices are now located. The lease provides that the rent for the option space will be based on the "prevailing market." The projected annual cost of leasing the space at a lease rate equivalent to the rate per square foot for NERC's existing space of approximately $\$ 50$ per square foot would add approximately $\$ 300 \mathrm{k}$ to the budget, assuming negotiation of a reasonable build out allowance. Estimated incremental operating costs would add an additional $\$ 5 \mathrm{k}$ in annual costs to the budget.

## 2015 Goals and Deliverables

To keep pace with the growth and risk of cyber attacks and the associated need for information sharing with other sectors and industry to mitigate potential BES reliability risk, NERC's 2015 budget provides stable resource investment levels devoted to supporting the ES-ISAC. This resource support is primarily directed to three areas:

1. Improve the usability and functionality of the information-sharing portal.
2. Prepare a cyber risk preparedness toolkit to allow industry to conduct self-assessments of cyber risk preparedness.
3. Increase analytical capabilities, portal monitoring, and information sharing. Costs in 2015 associated with improving the portal and information-sharing capabilities consist primarily of software licensing fees. The toolkit will reduce NERC's projected ongoing costs for conducting individual cyber risk preparedness assessments for industry. Plans for 2015 include the early steps toward transitioning to an industry self-assessment model with declining ES-ISAC level of effort.

## CRISP Program Participation

The Cybersecurity Risk Information Sharing Program (CRISP) is a public-private partnership whose purpose is to facilitate timely information sharing of cyber threat information and to develop situation awareness tools that enhance the electricity sector's ability to identify, prioritize, and coordinate the protection of its critical infrastructure. CRISP provides near-real-time capability for critical infrastructure owners and
operators to voluntarily share cyber threat data, analyze this data, and receive machine-to-machine mitigation measures. Information-sharing devices that are installed on participants' networks send encrypted data to a CRISP analysis center operated by the Pacific Northwest National Labs, which analyzes the data it receives and sends alerts and mitigation measures back to CRISP participants through a secure network. NERC is proposing to assume a program managementrole of CRISP. Given the significance of this potential undertaking, a detailed description of NERC's oversight role, together with associated budgetary and funding projections is set forth in Exhibit F.

## Resource Requirements

## Personnel

An administrative FTE is proposed to be added to the ES-ISAC department. The ES-ISAC currently shares administrative support with other departments. This FTE will be dedicated to supporting ES-ISAC personnel to facilitate the functional separation of ES-ISAC personnel from other operating areas. In addition and as further described in Exhibit F, NERC is proposing to add 2 FTEs to support CRISP.

## Contractor Expenses

Without CRISP, the 2015 contractor and consulting budget for ES-ISAC is approximately $\$ 663 \mathrm{k}$, which represents a decrease of approximately $\$ 123 \mathrm{k}$ from the 2014 budget. The amount budgeted for 2015 includes funding for existing and added tools and technology. A discussion of the specific nature and need for these resources falls under three major categories: Program Level Support, Software and Services, and Events and Outreach. Exhibit C sets forth the budget for each of these categories of expense. Exhibit F sets forth additional detail regarding the CRISP budget, including contractor expenses.

## Program Level Support

## Portal Enhancement

The ES-ISAC communication portal capabilities include: publishing alerts and other informational products, exchanging threat indicator information, and providing self-service access to user security awareness services. The ES-ISAC will continue development of a new portal platform that was initiated in 2014 as part of a long-term improvement strategy. Important new enhancements and improved capabilities are presently in use and development. These include facilitation of direct data exchange with other ISACs and government partners. The portal's improved capabilities support ES-ISAC analysts in their information analysis functions and directly tie the ES-ISAC analysts with their counterparts in other sectors and national laboratories.

## Cyber Risk Preparedness Assessments (CRPA)

The CRPA is a program that assesses the cybersecurity capabilities of registered entities through facilitated tabletop exercises. Conducting these assessments allows the ES-ISAC to gain a better understanding of industry capabilities, identify key sector-level areas for improvement, and share best practices across the industry. Through the CRPA, participants gain an improved understanding of their cybersecurity programs and capabilities. The CRPA allows them to identify areas for improvement and enhance their abilities to respond to and recover from cyber events. The CRPA also educates participants through defined deliverables and best practices. The program incorporates many Electricity Subsector Cybersecurity Capability Maturity Model practices, which allows the participating organization to assess its cybersecurity program and use the CRPA to validate its assessment. The ES-ISAC is continuing to develop, and will deploy, a CRPA "kit" for entities to use to develop and run their own CRPAs. This kit will allow more sector members to leverage the CRPA methodology, which will have a more significant impact on overall sector preparedness. ES-ISAC staff will host training and education sessions on the kit to accelerate adoption of the methodology across the sector and move the program toward self-sustainment within the industry. The contractor and consulting budget to support CRPA engagements, complete kit development, and initiate kit deployment for use by industry partners has begun to decrease. The decrease reflects early cost efficiencies resulting from the transition to an industry self-assessment model.

## Cyber Awareness Monitoring

A new class of cyber intelligence tools that collects and analyzes information and then alerts the user about selected threats is emerging in the marketplace. This collection and analysis goes beyond the individual organization's network perimeter and gives organizations like the ES-ISAC visibility across the entire industrial sector. Key global internet infrastructure data sources are combined with advanced visual analysis tools that provide ES-ISAC staff with enhanced analytic capabilities. The ES-ISAC currently licenses cyber awareness and continuous monitoring tools and services, including third-party services that provide real-time Internet communications visibility and analytics. During 2012 and 2013, the ES-ISAC worked with a vendor to develop a specific software visualization application that allows ES-ISAC staff to monitor malware and threats, as well as the general health of BES entities. ES-ISAC staff can then alert individual entities of problems. In 2014, the ES-ISAC portal will begin to provide individual asset owners a customized view of their asset networks. This view will provide the asset owner with insight into the organization's general network hygiene and highlight any significant network activity of concern.

## Software and Services

## Software Integration Support Services

The ES-ISAC operations center includes monitors used to display intelligence information provided from various software applications. Software integration services are routinely required from vendors providing existing and new software applications. Additional software must be licensed and maintained to display and integrate BES maps that have cyber intelligence information. The 2015 budget for software integration support services is approximately $\$ 63 \mathrm{k}$, a slight decrease from the 2014 budget. A portion of these costs is budgeted under Office Costs as software maintenance expenses.

## Analyst Workbench

A strong technical analytic capability is needed to develop baselines and identify patterns and understandings of potential cyber-related threats. The analyst workbench toolset maintains historical information and allows a team to use and deliver consistent and repeatable analysis in both an operational (during an event) as well as nonoperational capacity. The analyst workbench will also offer stand-alone functionality for assessing and understanding cyber events. This workbench will include a threat database for historical correlation and various tools for network- and host-based analysis of malicious software.

## Secure Bidirectional Communications

Certain emergent security situations may require the ES-ISAC to quickly transmit secure information from the ES-ISAC to DHS's NCCIC, DOE and its National Laboratories, and among different ES-ISAC registered users. The DOE recently developed the Contested Operational Network for Reporting and Defense (CONRAD) system for its own internal communications; CONRAD is now available for the ES-ISAC's use. The CONRAD system is an "out-of-band" network that ES-ISAC cyber analysts will use to communicate with their peers. The CONRAD system implements a specific network architecture that is separate from all regular site enterprise networks like Voice over Internet Protocol, normal email, web-based applications, and standard telephony. The CONRAD deployment is a fee-based service per network interface device; each location that participates in CONRAD requires a network interface device. CONRAD is also incorporated into CRISP with the expectation that every CRISP participant will have a device at its facility allowing for secure communications between all participants. NERC has budget for one device in 2015. If other devices are added, they will need to be funded from reserves.

## Events and Outreach

## Aurora Webinars and Technical Support

In late 2006, a significant supply chain vulnerability was discovered in digital protective control devices that protect generators and motors in use throughout the BES. This vulnerability, named the Aurora Vulnerability, demonstrated a remote exploit that led to the destruction of a small generator as a proof of concept attack in early 2007. In June of 2007, NERC released a Level 1 Industry Advisory that specified actions that entities could take to help prevent exploitation. In October 2010, NERC released a second Aurora Alert, this time a Level 2 Recommendation to Industry. This second release also triggered a substantial increase in NERC's effort to close this vulnerability gap, and it required entities to report every six months until they closed the Alert actions. Prior to each required reporting period, the ES-ISAC holds three webinars to provide BES entities who are still working on their Aurora mitigations an opportunity to interact with the original authors and researchers who discovered the Aurora vulnerability. The ES-ISAC anticipates supporting limited webinar activity for this purpose until at least 2017.

## Intelligence Reporting Services

ES-ISAC analytic personnel maintain a detailed understanding of emerging vulnerabilities and threats within the broad industrial control systems community, as well as within the more focused BES community. To support this intelligence role, the ES-ISAC budget includes the costs of a contract for intelligence services from a specialized security information service provider that focuses closely on the electricity subsector and has a working relationship with DOE's Idaho National Laboratory. These reporting services include weekly, quarterly, and annual news in the industrial controls systems and security space, along with expert guidance, opinion, and sourced material. This service gives ES-ISAC staff increased understanding of continuing trends, breaking news, and implications to the BES, which they utilize to keep registered entities informed of emerging BES risks through alerts and esisac.com security postings.

The ES-ISAC comparative Statement of Acitivities on the following page is inclusive of CRISP. See Exhibit F for additional supporting detail.

| Statement of Activities and Fixed Assets Expenditures 2014 Budget \& Projection and 2015 Budget |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ES-ISAC |  |  |  |  |  |  |  |  |  |  |
|  |  | 2014 <br> Budget |  | $2014$ <br> Projection |  | rojection <br> 4 Budget <br> (Under) |  |  |  | 15 Budget <br> 014 Budget <br> ver(Under) |
| Funding |  |  |  |  |  |  |  |  |  |  |
| ERO Funding |  |  |  |  |  |  |  |  |  |  |
| NERC Assessments* | \$ | 4,085,033 |  | 4,089,386 | \$ | 4,353 | \$ | 5,328,566 | \$ | 1,243,533 |
| Penalty Sanctions |  | 17,558 |  | 17,558 |  | - |  | 97,742 |  | 80,184 |
| Total NERC Funding | \$ | 4,102,591 | \$ | 4,106,944 | \$ | 4,353 | \$ | 5,426,307 | \$ | 1,323,716 |
| Third-Party Funding (CRISP) |  | - |  | - |  | - |  | 8,943,589 |  | 8,943,589 |
| Interest |  | 1,184 |  | - |  | $(1,184)$ |  | 248 |  | (936) |
| Total Funding (A) | \$ | 4,103,775 | \$ | 4,106,944 | \$ | 3,169 | \$ | 14,370,144 | \$ | 10,266,369 |
| Expenses |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 1,336,679 | \$ | 1,283,028 | \$ | $(53,651)$ | \$ | 1,733,405 | \$ | 396,726 |
| Payroll Taxes |  | 77,887 |  | 77,307 |  | (580) |  | 103,696 |  | 25,809 |
| Benefits |  | 135,474 |  | 128,072 |  | $(7,402)$ |  | 186,739 |  | 51,265 |
| Retirement Costs |  | 151,967 |  | 141,032 |  | $(10,935)$ |  | 195,059 |  | 43,092 |
| Total Personnel Expenses | \$ | 1,702,007 | \$ | 1,629,439 | \$ | $(72,568)$ | \$ | 2,218,899 | \$ | 516,892 |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |
| Meetings |  |  | \$ | - | \$ | - | \$ | 60,000 | \$ | 60,000 |
| Travel |  | 88,428 |  | 95,000 |  | 6,572 |  | 126,000 |  | 37,572 |
| Conference Calls |  |  |  | 19,848 |  | 19,848 |  | 24,885 |  | 24,885 |
| Total Meeting Expenses | \$ | 88,428 | \$ | 114,848 | \$ | 26,420 | \$ | 210,885 | \$ | 122,457 |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | 786,450 | \$ | 701,600 | \$ | $(84,850)$ | \$ | 8,329,390 | \$ | 7,542,940 |
| Office Rent |  |  | \$ | - |  | - |  | - |  | - |
| Office Costs |  | 32,775 | \$ | 47,728 |  | 14,953 |  | 356,914 |  | 324,139 |
| Professional Services |  |  | \$ | - |  | - |  | 350,000 |  | 350,000 |
| Miscellaneous |  |  | \$ | - |  | - |  | 500 |  | 500 |
| Depreciation |  |  | \$ | - |  | - |  | - |  | - |
| Total Operating Expenses | \$ | 819,225 | \$ | 749,328 | \$ | $(69,897)$ | \$ | 9,036,804 | \$ | 8,217,579 |
| Total Direct Expenses | \$ | 2,609,660 | \$ | 2,493,615 | \$ | $(116,045)$ | \$ | 11,466,588 | \$ | 8,856,928 |
| Indirect Expenses | \$ | 1,451,372 | \$ | 1,610,555 | \$ | 159,183 | \$ | 2,173,799 | \$ | 722,428 |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total Expenses (B) | \$ | 4,061,032 | \$ | 4,104,170 | \$ | 43,138 | \$ | 13,640,387 | \$ | 9,579,355 |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |
| Computer \& Software CapEx |  | - |  | - |  | - |  | 100,000 |  | 100,000 |
| Allocation of Fixed Assets | \$ | 42,937 | \$ | 14,637 |  | $(28,300)$ |  | 129,758 |  | 86,821 |
| Inc(Dec) in Fixed Assets ( C ) | \$ | 42,937 | \$ | 14,637 | \$ | $(28,300)$ | \$ | 229,758 | \$ | 186,821 |
| TOTAL BUDGET (=B + C) | \$ | 4,103,969 | \$ | 4,118,807 | \$ | 14,838 | \$ | 13,870,144 | \$ | 9,766,176 |
| FTEs |  | 7.72 |  | 7.57 |  | (0.15) |  | 10.32 |  | 2.60 |

## Summary of Variances by Category - 2015 Budget Compared to 2014 Budget

- Personnel - The increase in personnel expenses is due to the addition of an administrative FTE as described above, and two positions to support CRISP, offset by an increase in the across-theboard FTE adjustment to account for attrition and hiring delays-from 4\% in 2014 to 6\% in 2015.
- Meetings, Travel, and Conferencing Expenses - Meeting and conferencing expenses were not allocated to ES-ISAC in the 2014 budget but were collectively budgeted in the Critical Infrastructure Department. The increase in travel expense is due to the increase in FTEs.
- Consultants and Contracts - Expenses in this category are primarily related to CRISP as detailed in Exhibits C and F
- Office Costs - The increase is due to data storage needs to support CRISP and software maintenance agreements that were budgeted in the Critical Infrastructure Department in 2014, but have been properly budgeted as a cost of the ES-ISAC in 2015.
- Professional Services - The increases are for outside professional services support and additional insurance costs related to CRISP.
- Indirect Expenses and Allocation of Fixed Assets - Indirect expenses and allocation of fixed assets is higher due to the increase in FTEs in proportion to total FTEs in the statutory programs and to higher administrative services expenses to be allocated to the direct programs as explained on page xxi.


## Training, Education, and Operator Certification

| Training, Education and Operator Certification (in whole dollars) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 Budget |  | 2015 Budget |  | Increase <br> (Decrease) |  |
| Total FTEs |  | 8.16 |  | 7.97 |  | (0.19) |
| Direct Expenses | \$ | 2,158,199 | \$ | 2,171,919 | \$ | 13,720 |
| Indirect Expenses | \$ | 1,534,092 | \$ | 1,678,797 | \$ | 144,704 |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - |
| Inc(Dec) in Fixed Assets | \$ | 45,181 | \$ | 100,210 | \$ | 55,029 |
| TOTAL BUDGET | \$ | 3,737,472 | \$ | 3,950,926 | \$ | 213,454 |

## Background and Scope

NERC's Training and Education Program provides oversight and coordination of the delivery of training programs that support the ERO's statutory responsibilities. This program provides training to NERC and Regional Entity staff members, including compliance auditors. It also provides training and education to industry participants on the requirements of Reliability Standards and the compliance monitoring and enforcement process. Further, this program provides training to industry participants on the Reliability Standards development process, thereby helping to support the more efficient and effective development of mandatory Reliability Standards. The Training and Education Program supports NERC's statutory ERO responsibilities to develop, adopt, and obtain approval of Reliability Standards and to monitor, enforce, and achieve compliance with the mandatory standards. Section 901 of the NERC Rules of Procedure addresses the Training and Education Program's activities in these areas. The responsibility for training in some key areas is shared among multiple departments at NERC. Guidance for these areas is expressed in the NERC Rules of Procedure and other governing documentation pertaining to the operation of NERC as the ERO.

The Training and Education Program also supports NERC's System Operator Certification and Continuing Education (SOCCED) programs, which ensure that personnel operating the BES have the skills, training, and qualifications needed to operate the system reliably. NERC maintains the required credentials for over 6,000 system operators to work in system control centers across North America. NERC's system operator certification exam is designed to test specific knowledge of job skills and Reliability Standards. It also prepares operators for complying with requirements of Reliability Standards and appropriately operating the BES during normal and emergency operations. Certification exams are created by the Personnel Certification Governance Committee, an industry group of operations experts, trainers, and supervisors. Under the PCGC oversight, the Examination Working Group periodically updates and publishes new exams. Once an operator passes the certification exam, certification is maintained by completing NERC-approved continuing education courses and activities. The Personnel Subcommittee, composed of industry training experts, provides oversight of the Continuing Education program. Sections 500 and 902 of the NERC Rules of Procedure address the Training and Education Program's activities in these areas.

## Key Training, Education, and Operator Certification Efforts Underway in 2014

The ERO provides training for industry and ERO personnel to support their understanding of key program areas. These include:

1. Auditor Training
2. Standards and Compliance Training
3. Registration and Certification (for registered entities)
4. Continuing education for system operators and other industry personnel as appropriate and related to reliability functions
5. Event Analysis, Cause Analysis, and Lessons Learned

## 2015 Goals and Deliverables

In response to stakeholder and Regional Entity feedback, training and education opportunities will be further expanded and focused for registered entities, NERC staff, and Regional Entities. For registered entities, this training and education will focus on objectives related to various Reliability Standards, including standards compliance and emerging cyber-related issues that could affect BES reliability. For NERC and Regional Entity staff, the training and education will focus on consistent audit and investigation techniques and standards compliance reviews, including the RAI, FFT, and other improvements in compliance and enforcement practices. NERC will continue to offer training in auditor skills to promote continued development of auditing expertise. NERC will leverage IT systems to better deliver and share common training products and information with Regional Entities and registered entities. Other training will focus on knowledge and skills development in a number of key areas, including:

- Development and implementation of clear and technically sound Reliability Standards,
- Key lessons learned and trends from events,
- Identified themes from trending and common cause analyses,
- Effective compliance cultures with practices, procedures, and controls to address reliability risks,
- Effective root, apparent, and common cause analysis methods,
- Quality improvement of registered entity self-reporting and self-certification,
- Entity registration processes, issues, and alternatives,
- Human performance fundamentals, and
- Systematic approach to training.

NERC will continue to provide learning opportunities through workshops hosted by the Regional Entities. NERC will also host workshops, webinars, and training courses, as well as use vendors to develop training modules and supplement internal training resources. The responsibility for the subject matter expertise for much of the training is shared among multiple departments at NERC. The Training and Education group will provide coordination and synchronization efforts for shared NERC and ERO training responsibilities in addition to advancing and improving the skills of NERC's operating staff. NERC's Human Resources department will continue to budget and manage the delivery of more traditional corporate employee training and continuing education programs in concert with the coordination and synchronizing efforts of the Training and Education group.

## Resource Requirements

## Personnel

The Training, Education, and Operator Certification department is not proposing the addition of staff in 2015.

## Contractor Expenses

The total proposed consulting and contractor expenses of approximately $\$ 752 \mathrm{k}$ in 2015 is approximately $\$ 97 \mathrm{k}$ below the 2014 budget.

Further detail in support of the proposed 2015 contractor and consulting budget to support Training, Education, and Operator Certification is set forth in Exhibit C, which includes a comparison to 2014 budgeted amounts. The primary areas of contractor and consulting support include:

- Testing services to develop, administer, proctor, score, and support system operator certification exams across North America.
- Ongoing hosting and maintenance fees for the SOCCED database.
- Improvements to the SOCCED database described above.
- Supplemental support to Continuing Education Review Panel industry volunteers to review and audit over 2,500 individual learning activities and provider applications received each year. ${ }^{26}$
- Audit team leader soft skills training delivered by certified NERC staff using vendor-licensed materials to support effective dialogue and communications between audit teams and registered entities.
- Vendor supported BES technical training for select ERO staff, including auditors, technical, and support staff.
- Auditor training by recognized auditing specialists for NERC and Regional Entity staff to promote continued development of compliance staff.
- Web-based training development for ERO staff and industry, including standards applications, risk assessment training, industry human performance fundamentals, and BES events lessons learned.
- Learning management system to support web-based training for ERO staff.

[^19]| Statement of Activities and Fixed Assets Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TRAINING, EDUCATION and OPERATOR CERTIFICATION |  |  |  |  |  |  |  |  |  |
|  |  | $2014$ <br> Budget | $2014$ <br> Projection |  | riance <br> Projection <br> 4 Budget <br> (Under) |  | 2015 <br> Budget |  | ance <br> Budget <br> Budget <br> Under) |
| Funding |  |  |  |  |  |  |  |  |  |
| NERC Assessments | \$ | 1,665,959 | \$ 1,665,959 | \$ | (0) | \$ | 1,826,822 | \$ | 160,862 |
| Penalty Sanctions |  | 12,008 | 12,008 | \$ | - |  | 48,871 |  | 36,862 |
| Total NERC Funding | \$ | 1,677,968 | \$ 1,677,967 | \$ | (0) | \$ | 1,875,692 | \$ | 197,725 |
| Third-Party Funding |  | - | - |  | - |  | - |  | - |
| Testing Fees |  | 1,620,000 | 1,620,000 |  | - |  | 1,670,000 |  | 50,000 |
| Services \& Software |  | - | - |  | - |  | - |  | - |
| Workshops |  | - | - |  | - |  | - |  | - |
| Interest |  | 1,252 | 162 |  | $(1,090)$ |  | 192 |  | $(1,060)$ |
| Miscellaneous |  | - | - |  | - |  | - |  | - |
| Total Funding (A) | \$ | 3,299,220 | \$ 3,298,129 | \$ | $(1,090)$ | \$ | 3,545,884 | \$ | 246,665 |
| Expenses |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 806,116 | \$ 859,928 | \$ | 53,812 | \$ | 903,106 | \$ | 96,990 |
| Payroll Taxes |  | 56,919 | 67,624 |  | 10,705 |  | 60,937 |  | 4,018 |
| Benefits |  | 143,194 | 132,456 |  | $(10,738)$ |  | 146,059 |  | 2,865 |
| Retirement Costs |  | 91,840 | 97,903 |  | 6,063 |  | 101,437 |  | 9,597 |
| Total Personnel Expenses | \$ | 1,098,069 | \$ 1,157,911 | \$ | 59,842 | \$ | 1,211,539 | \$ | 113,470 |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 36,000 | \$ 65,000 | \$ | 29,000 | \$ | 59,931 | \$ | 23,931 |
| Travel |  | 51,000 | 21,804 |  | $(29,196)$ |  | 25,322 |  | $(25,678)$ |
| Conference Calls |  | 25,500 | 25,500 |  | - |  | 29,320 |  | 3,820 |
| Total Meeting Expenses | \$ | 112,500 | \$ 112,304 | \$ | (196) | \$ | 114,573 | \$ | 2,073 |
| Operating Expenses |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | 848,830 | \$ 679,305 | \$ | $(169,525)$ | \$ | 752,130 | \$ | $(96,700)$ |
| Office Rent |  | - | - |  | - |  | - |  | - |
| Office Costs |  | 98,300 | 98,776 |  | 476 |  | 93,178 |  | $(5,122)$ |
| Professional Services |  | - | - |  | - |  | - |  | - |
| Miscellaneous |  | 500 | - |  | (500) |  | 500 |  | - |
| Depreciation |  | - | 1,919 |  | 1,919 |  | - |  | - |
| Total Operating Expenses | \$ | 947,630 | \$ 780,000 | \$ | $(167,630)$ | \$ | 845,808 | \$ | $(101,822)$ |
| Total Direct Expenses | \$ | 2,158,199 | \$ 2,050,215 | \$ | $(107,984)$ | \$ | 2,171,919 | \$ | 13,720 |
| Indirect Expenses | \$ | 1,534,092 | \$ 1,665,871 | \$ | 131,779 | \$ | 1,678,797 | \$ | 144,704 |
| Other Non-Operating Expenses | \$ | - | \$ | \$ | - | \$ | - | \$ | - |
| Total Expenses (B) | \$ | 3,692,291 | \$ 3,716,086 | \$ | 23,795 | \$ | 3,850,716 | \$ | 158,425 |
| Change in Assets | \$ | $(393,072)$ | \$ (417,958) | \$ | $(24,885)$ | \$ | $(304,832)$ | \$ | 88,240 |
| Fixed Assets |  |  |  |  |  |  |  |  |  |
| Depreciation |  | - | $(3,838)$ |  | $(1,919)$ |  | - |  | - |
| Computer \& Software CapEx |  | - | - |  | - |  | - |  | - |
| Furniture \& Fixtures CapEx |  | - | - |  | - |  | - |  | - |
| Equipment CapEx |  | - | - |  | - |  | - |  | - |
| Leasehold Improvements |  | - | - |  | - |  | - |  | - |
| Allocation of Fixed Assets | \$ | 45,181 | \$ 15,140 |  | $(30,041)$ |  | 100,210 | \$ | 55,029 |
| Inc(Dec) in Fixed Assets ( C ) | \$ | 45,181 | \$ 11,302 | \$ | $(31,960)$ | \$ | 100,210 | \$ | 55,029 |
| TOTAL BUDGET (=B + C) | \$ | 3,737,472 | \$ 3,727,388 | \$ | $(8,165)$ | \$ | 3,950,926 | \$ | 213,454 |
| FTES |  | 8.16 | 7.83 |  | (0.33) |  | 7.97 |  | (0.19) |

## Summary of Variances by Category - 2015 Budget Compared to 2014 Budget

- Personnel - In addition to the budgeted increase in salaries, the increase in salaries is due to changes in job responsibilities for some positions, resulting in higher expense per FTE, partially offset by the change an increase in the across the board FTE adjustment to account for attrition and hiring delays-from $4 \%$ in 2014 to $6 \%$ in 2015. The higher salary expense per FTE also resulted in higher retirement expenses. The increase in payroll taxes is due to a higher maximum salary subject to FICA taxes. The increase in benefits is due to budgeted market increases in medical and dental plan costs.
- Meetings, Travel, and Conferencing Expenses -The increase in meeting expenses is primarily related to the PCGC and is offset by testing and certification fees. The increase in conferencing and the reduction in travel expenses, are based upon prior year actual and 2014 projected costs.
- Consultants and Contracts - The decrease is primarily due to lower costs for system operator testing and exam development costs.
- Indirect Expenses and Allocation of Fixed Assets - Indirect expenses and allocation of fixed assets is higher due to higher administrative services expenses to be allocated to the direct programs, as explained on page xxi.


## Administrative Services

| Administrative Services (in whole dollars) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 Budget |  | 2015 Budget |  | Increase (Decrease) |  |
| Total FTEs |  | 59.14 |  | 67.54 |  | 8.40 |
| Total Direct Expenses | \$ | 24,513,515 | \$ | 26,279,380 | \$ | 1,765,865 |
| Inc(Dec) in Fixed Assets | \$ | 721,958 | \$ | 1,568,658 | \$ | 846,700 |
| Total Allocation to Statutory Programs as Indirect Expenses | \$ | 25,235,473 | \$ | 27,848,038 | \$ | 2,612,565 |

## Program Scope and Functional Description

NERC's Administrative Services area includes the budget for all business and administrative functions of the organization, including (1) technical committees and member forums; (2) General and Administrative, which includes Board fees and expenses, the president and chief executive officer (CEO), chief reliability officer (CRO) and support staff, communications, external affairs and governmental relations, and office rent; (3) Legal and Regulatory; (4) Information Technology; (5) Human Resources; (6) Finance and Accounting; and (7) other general administrative expenses necessary to support program area activities. These functions are necessary to the existence and functioning of the organization and support the performance of NERC's ERO statutory activities. The costs of the Administrative Services functions are allocated to the five statutory programs as indirect expenses. The resource requirements and comparative budget information for each of these functions is described further below.

## Technical Committees and Members' Forum Program

While NERC management and staff will continue to interact with and support numerous reliability-related forums (e.g., the North American Transmission Forum and Generator Forum), NERC's 2015 budget does not contain specific funding for any forum activities.

## General and Administrative

## Background and Scope

The General and Administrative area is responsible for the administration and general management of the organization. Expenses allocated in this area include office rent; personnel and related costs of the CEO, the CRO, the CEO's executive assistant, communications, external affairs and government relations staff, and costs related to the Board. No additional personnel are budgeted for 2015 beyond current staffing. The increase in FTEs in the General and Administrative area is due to a reallocation occurring in 2014 of personnel supporting the Member Representatives Committee and Regional Entity Management Group activities.

The following table details the Board costs included in the total costs of the General and Administrative area.

| Board of Trustee Expenses |  | $\begin{gathered} \text { Budget } \\ 2014 \end{gathered}$ |  | $\begin{gathered} \text { Projection } \\ 2014 \end{gathered}$ |  | $\begin{gathered} \text { Budget } \\ 2015 \end{gathered}$ |  | $\begin{gathered} 2015 \text { v } 2014 \\ \text { Budget } \end{gathered}$ | Variance \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Meetings and Travel Expenses |  |  |  |  |  |  |  |  |  |
| Quarterly Board Meetings | \$ | 234,000 | \$ | 250,000 | \$ | 244,000 | \$ | 10,000 |  |
| Trustee Travel |  | 155,000 |  | 155,000 |  | 150,000 |  | $(5,000)$ |  |
| Total Board of Trustees Meetings and Travel Expenses |  | 389,000 |  | 405,000 |  | 394,000 |  | 5,000 |  |
| Professional Services |  |  |  |  |  |  |  | - |  |
| Independent Trustee Fees |  | 1,000,000 |  | 1,000,000 |  | 1,085,000 |  | 85,000 |  |
| Trustee Search Fees |  | 70,000 |  | 70,000 |  | - |  | $(70,000)$ |  |
| Total Board of Trustee Professional Services Expenses |  | 1,070,000 |  | 1,070,000 |  | 1,085,000 |  | 15,000 |  |
| Total Board of Trustee Expenses | \$ | 1,459,000 | \$ | 1,475,000 | \$ | 1,479,000 | \$ | 20,000 | 1.37\% |



## Summary of Variances by Category - 2015 Budget Compared to 2014 Budget

- Personnel - Personnel expenses are projected to increase in 2015 due primarily to FTEs reallocated to this department in 2014. The percentage increase in payroll taxes is higher than salaries and retirement expenses due to an increase in the maximum salary subject to FICA taxes. Benefits are projected to increase at a higher rate than other personnel expenses due to the higher cost per employee of employee benefits plans.
- Travel and Conferencing Expenses - The increases in meeting, travel and conferencing expenses for 2015 are based upon 2013 actual costs.
- Consultants and Contracts - The decrease in 2015 is due to the reduction in the projected cost of outside consulting to support communications.
- Office Rent - The increase is related to the plan to exercise an existing option to acquire additional space in the Washington, DC office for the separation of the ES-ISAC from other NERC operations and to a projected decrease in rental income from the subtenant in NERC's former Washington, DC offices.
- Office Costs - The decrease is primarily due to lower copying and use tax expenses based upon 2013 actual costs.
- Professional Services - The increase is due to an increase in Trustee compensation offset by the reduction in Trustee search fees.
- Other Non-Operating Expenses - The decrease is due to timing of draws on the capital financing loan which is expected to occur at the end of each year instead of the beginning of the year. Management has assumed a $3.5 \%$ rate of interest, which is higher than the current rate of interest, given the potential for interest rate increases in 2015.


## Legal and Regulatory

|  | Legal and Regulatory (in whole dollars) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 Budget |  | 2015 Budget |  | Increase (Decrease) |  |
| Total FTEs |  | 15.15 |  | 15.01 |  | (0.14) |
| Total Direct Expenses | \$ | 4,298,813 | \$ | 4,448,015 | \$ | 149,202 |
| Inc(Dec) in Fixed Assets | \$ | - | \$ | - | \$ | - |

## Background and Scope

The Legal and Regulatory department's workload is derived from the following key NERC program areas: Compliance Analysis, Registration and Certification, Reliability Risk Management, Reliability Assessment and Performance Analysis, and Standards. In addition, the Legal and Regulatory department is also responsible for providing a wide range of legal support to the NERC management team regarding antitrust, corporate, commercial, insurance, contract, employment, real estate, copyright, tax, legislation, and other legal matters. The Legal and Regulatory department is extensively involved with the preparation of the Five-Year ERO Performance Assessment, which was filed with FERC on July, 21, 2014. The department also addresses legal and regulatory matters that arise in connection with the delegation agreements with the Regional Entities, including proposed amendments to agreements expected at the end of 2015. The legal and regulatory needs of the ERO are both demanding and increasingly more complex.

## Resource Requirements

No additional personnel are budgeted in 2015 for this department.
Outside law firms and consultants supporting this area are budgeted and tracked as Professional Services. The Professional Services budget for 2015 is reduced from the 2014 budget.

| Statement of Activities and Fixed Assets Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LEGAL and REGULATORY |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{gathered} 2014 \\ \text { Budget } \end{gathered}$ |  | $\begin{gathered} 2014 \\ \text { Projection } \\ \hline \end{gathered}$ |  | ance <br> ojection <br> Budget <br> Under) |  | 2015 <br> Budget |  | iance <br> Budget <br> Budget <br> Under) |
| Funding |  |  |  |  |  |  |  |  |  |  |
| ERO Funding |  |  |  |  |  |  |  |  |  |  |
| NERC Assessments | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Penalty Sanctions | \$ | - | \$ | - |  |  |  | - |  |  |
| Total NERC Funding | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Third-Party Funding |  | - |  | - |  | - |  | - |  | - |
| Testing Fees |  | - |  | - |  | - |  | - |  | - |
| Services \& Software |  | - |  | - |  | - |  | - |  | - |
| Workshops |  | - |  | - |  | - |  | - |  | - |
| Interest |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Total Funding (A) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Expenses |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 2,637,399 | \$ | 2,696,870 | \$ | 59,471 | \$ | 2,798,380 | \$ | 160,981 |
| Payroll Taxes |  | 136,718 |  | 150,064 |  | 13,346 |  | 152,178 |  | 15,460 |
| Benefits |  | 265,856 |  | 257,444 |  | $(8,412)$ |  | 288,597 |  | 22,741 |
| Retirement Costs |  | 296,887 |  | 293,893 |  | $(2,994)$ |  | 314,835 |  | 17,948 |
| Total Personnel Expenses | \$ | 3,336,860 | \$ | 3,398,271 | \$ | 61,411 | \$ | 3,553,990 | \$ | 217,130 |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 5,000 | \$ | 5,000 | \$ | - | \$ | 7,500 | \$ | 2,500 |
| Travel |  | 120,000 |  | 104,549 |  | $(15,451)$ |  | 106,000 |  | $(14,000)$ |
| Conference Calls |  | 12,953 |  | 7,024 |  | $(5,929)$ |  | 8,874 |  | $(4,079)$ |
| Total Meeting Expenses | \$ | 137,953 | \$ | 116,573 | \$ | $(21,380)$ | \$ | 122,374 | \$ | $(15,579)$ |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Office Rent |  | - |  | - |  | - |  | - |  | - |
| Office Costs |  | 63,500 |  | 60,942 |  | $(2,558)$ |  | 71,152 |  | 7,652 |
| Professional Services |  | 760,000 |  | 790,000 |  | 30,000 |  | 700,000 |  | $(60,000)$ |
| Miscellaneous |  | 500 |  | - |  | (500) |  | 500 |  | - |
| Depreciation |  | - |  | 4,458 |  | 4,458 |  | - |  | - |
| Total Operating Expenses | \$ | 824,000 | \$ | 855,400 | \$ | 31,400 | \$ | 771,652 | \$ | $(52,348)$ |
| Total Direct Expenses | \$ | 4,298,813 | \$ | 4,370,243 | \$ | 71,430 | \$ | 4,448,015 | \$ | 149,202 |
| Indirect Expenses | \$ | $(4,298,813)$ | \$ | $(4,370,243)$ | \$ | (71,430) | \$ | $(4,448,015)$ | \$ | $(149,202)$ |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total Expenses (B) | \$ | - | \$ | - | \$ | 0 | \$ | - | \$ | 0 |
| Change in Assets | \$ | - | \$ | - | \$ | (0) | \$ | - | \$ | (0) |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |
| Depreciation |  | - |  | $(4,458)$ |  | $(4,458)$ |  | - |  | - |
| Computer \& Software CapEx |  | - |  | - |  |  |  | - |  | - |
| Furniture \& Fixtures CapEx |  | - |  | - |  |  |  | - |  | - |
| Equipment CapEx |  | - |  | - |  |  |  | - |  | - |
| Leasehold Improvements |  | - |  | - |  |  |  | - |  | - |
| Allocation of Fixed Assets | \$ | - | \$ | 4,458 |  |  |  | - |  |  |
| Inc(Dec) in Fixed Assets ( C ) | \$ | - | \$ | - | \$ | $(4,458)$ | \$ | - | \$ | - |
| TOTAL BUDGET ( $=$ + + ) | \$ | - | \$ | - | \$ | $(4,458)$ | \$ | - | \$ | 0 |
| FTEs |  | 15.15 |  | 15.22 |  | 0.07 |  | 15.01 |  | (0.14) |

## Summary of Variances by Category - 2015 Budget Compared to 2014 Budget

- Personnel - The increases in salaries and retirement expenses reflect the general increases included in the 2015 budget. The percentage increase in payroll taxes is higher than salaries and retirement expenses due to an increase in the maximum salary subject to FICA taxes. Benefits are projected to increase at a higher rate than other personnel expenses due to the higher cost per employee of employee benefits plans due to budgeted market increases in medical and dental plan costs.
- Meetings, Travel and Conferencing Expenses - The slight increase in meetings expense and the decreases in travel and conferencing expenses are based upon prior year actual costs.
- Office Costs - The increase is due to projected higher subscription costs for legal research tools.
- Professional Services - The reduction is related to outside legal costs to complete the 5-year performance assessment in 2014.


## Information Technology

| Information Technology (in whole dollars) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 Budget |  | 2015 Budget |  | Increase <br> (Decrease) |  |
| Total FTEs |  | 18.07 |  | 19.70 |  | 1.63 |
| Total Direct Expenses | \$ | 8,320,845 | \$ | 8,526,886 | \$ | 206,041 |
| Inc(Dec) in Fixed Assets | \$ | 1,141,357 | \$ | 1,988,057 | \$ | 846,700 |

## Background and Scope

NERC's information technology (IT) department plan and budget includes those resources necessary to support the development and maintenance of ERO Enterprise applications, data analysis and ongoing operations.

## 1. ERO Enterprise Applications -

There are three major categories of expense which are included in the rolling three year Enterprise Application budget and forecast:
a. Development. Applications deemed strategic to the ERO enterprise that are not readily available in a Commercially-off-the-Shelf (COTS) solution will require development by a well-qualified vendor, with expert level staff to develop the application to be used across the ERO enterprise, to include NERC, Regional Entities and in some instances registered entities.
b. Enhancement. As enterprise applications are brought online and operational, ongoing, approved upgrades will be required to, enhance features, add functionality and meet the dynamic needs of the ERO enterprise to ensure the reliability of the North American bulk power system. The Bulk Electric System Notifications and Exceptions (BESnet) tool was brought online and operational on July 1, 2014, along with the Standards Balloting System (SBS) which is in the final stages of development and future enterprise applications will all require business approved enhancements following a disciplined process for approval and implementation.
c. Support. Enterprise applications implemented for use by NERC, Regional Entities and sometimes registered entities e.g., BESnet, require ongoing support to ensure they are they are operational for business usage. Following industry accepted support practices funding for this line item is designed to ensure end user application issues are resolved, identification of errors, along with application and database maintenance is performed, to ensure the application is maintained and available in support of the ERO enterprise.
2. ERO Data Analysis -

Data analysis expenses fall into three major categories: professional services, tools and support costs.
a. Professional Services. Professional services include vendor support for implementation and configuration of data analytics for the ERO Enterprise. Data analytics are used to
describe, predict and improve business performance, as well as identify and assess reliability risks.
b. Tools. Tools include software applications used to mine data from a single, or multiple databases in order to create analytics (e.g., Microsoft's Analytics Platform System in order to determine business performance, or in the context of the ERO enterprise, possible risk to reliability).
c. Support. Support includes ongoing upgrades and enhancements, along with vendor help desk support as required.

## 3. Ongoing Operations -

NERC's IT budget includes costs to support existing software applications, as well as consulting and vendor costs for network security testing and planning, website maintenance and development, as well as the development and implementation of a document management system.
a. Compliance Database (CRATS/webCDMS+). The compliance database is used to track violations, mitigation plans to include reporting required by NERC as the certified ERO. In addition, the compliance database has additional modules included such as the Standards, Technical Feasibility Exceptions (TFE's) and Registration module, which contains a list of all registered entities. Funding requirements include ongoing maintenance and enhancements to the compliance tools (CRATS and webCDMS+).
b. Application Broker, Meeting Manager, ERO Membership, NERC My Account, UMP, RCIS, CIPIS, CRC. NERC maintains a number of legacy applications. Many of the legacy applications were developed and implemented five to ten years ago and are unable to take advantage of contemporary application development and will have to be completely re-written, or may be able to leverage to-be-developed functionality available in the ERO enterprise applications. Funding is required for ongoing maintenance and enhancements until the application can be re-written or, in some case, potentially divested or transferred to industry support.
c. Quarterly Penetration, Vulnerability Testing all NERC network and systems. Expert consulting services required to provide ongoing intrusion detection and vulnerability testing of the NERC public website, NERC's network, applications, and systems is an essential requirement of on-going operations. Multiple attempts are made to gain access, and any vulnerability identified is documented and provided to NERC IT for rapid remediation.
d. NERC Security Program - enhance based on internal audit recommendations. NERC's IT department performs a number of technology initiatives to ensure the security of the network and infrastructure. However, in order to continually improve security, a more holistic approach is required that implements technology improvements and constructs an overarching security program to ensure all aspects of security have been considered, including information classification, review of retention policies, and enforcement of security guidelines. During 2014, an outside vendor was retain to conduct an IT Risk Assessment. The outcome of the risk assessment will be used to guide and continually enhance the NERC IT security program as part of a multi-year initiative.
e. Document Management System and Website Enhancement. During 2014, NERC will complete the initial steps required to commence implementation of a document
management system. In addition, during 2013, NERC completed a major enhancement of its public website utilizing SharePoint 2010. The effort was focused on moving to a much more flexible product that would lay the foundation for future website enhancements, such as an improved document library and navigation, and greatly improved analytics and search capability. In 2014, NERC made additional enhancements to the public website designed to improve internal core functionality e.g., streamlined document posting, internal controls and approval process. During the 2015-2017 timeframe NERC's IT department, in conjunction with the program areas,, plans to conduct a review of the website architecture in order to streamline access to important industry information, enhance search capability by leveraging metadata, along with the overall view and presentation of data across the website.

## Resource Requirements

## Personnel

The increase in FTEs is due to the transfer of open positions from other departments in 2014, as well as the addition of a Chief Information Officer in 2014.

## Contract and Consulting Resources to Support Internal Operations

The 2015 budgeted amounts are set forth in Exhibit C, with a comparison to 2014 budgeted amounts.

## 2015 IT Operating Expenses

A summary of the major categories of IT Operating Expenses are set forth in the following table:

| Office Costs | $\begin{gathered} \text { Budget } \\ 2014 \end{gathered}$ |  | $\begin{gathered} \text { Budget } \\ 2015 \end{gathered}$ |  | Variance |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Telephone | \$ | 225,000 | \$ | 225,000 | \$ | - |
| Telephone - Answering Service |  |  |  | 3,000 |  | 3,000 |
| Internet |  | 275,000 |  | 375,000 |  | 100,000 |
| Computer Supplies and Maintenance |  |  |  |  |  |  |
| Computers |  | 4,500 |  | 9,000 |  | 4,500 |
| Computer Supplies |  | 95,400 |  | 100,100 |  | 4,700 |
| Maintenance \& Service Agreements |  | 1,539,370 |  | 1,333,320 |  | $(206,050)$ |
| Software |  | 140,500 |  | 88,000 |  | $(52,500)$ |
| Network Supplies |  | - |  | - |  |  |
| Express Shipping |  | - |  | 10,000 |  | 10,000 |
| Total Office Costs | \$ | 2,279,770 | \$ | 2,143,420 | \$ | $(136,350)$ |

## Telephone Expenses

Office telephone costs are items associated with cellular phone, mobile laptop cellular air card, bonded T1 Voice over Internet Protocol (VoIP) data circuits, and conference calling expenses.

NERC-issued cell phones are provided to employees to ensure access and productivity before, during, and after business hours, and cost is minimized by leveraging pooled minutes. Individual NERC employees are provided with a basic pooled cell phone plan of 450 minutes, including a basic-level subscription for texting and data. This plan is designed to ensure persons who travel frequently have additional cell phone minutes by taking advantage of limited usage by employees who travel less frequently. In addition,
employees are encouraged to connect via wireless whenever possible to reduce cellular charges for data usage. The basic texting plan is provided for those instances when calling or email is not optimal. Cellular calling costs are included in the telephone expense item.

Mobile laptop cellular air cards are provided to ensure connectivity while traveling or in locations where wireless connectivity is unavailable. Wireless or cellular connectivity to the NERC network is enabled using virtual private network technology to ensure maximum security, logging, and encryption. In addition, IT support persons are required to be available for support $24 \times 7 \times 365$, which in almost all instances requires them to have access to systems and network via secure Internet connectivity. Included in the line item "telephone" are those monthly costs associated with Internet access for systems, application, network, and security to enable IT resources to provide support and conduct emergency and non-emergency patching of systems, routers, firewalls, etc., as required to ensure the stability of the NERC technology environment.

Conference calling is conducted via an external service provider in order to minimize internal hardware, IT support, and internal conference lines capable of providing access to an external audience. Information Technology conference calling, webinars, recorded events, etc., are included in the telephone cost line item. During 2014, IT implemented Microsoft Lync to enhance productivity by leveraging Interactive Messaging and Desktop Sharing and will also work to reduce conference calling fees by implementing a solution for internal conference calling.

Bonded T1 circuits provide access for VoIP service for NERC desk phones in lieu of having an expensive, support-intensive in-house phone switch (e.g., Private Branch Exchange) that requires senior-level telecommunication resources to support and manage.

## Internet Expense

Internet expense is comprised of data circuits, Plain Old Telephone Service (POTS), and redundant capability in the event of primary service provider failure.

## Computers

Computers are items that do not meet the criteria to be considered a capital expense, such as desktop computers or iPads. Desktop computers enable conference webinars, Internet access, training room functionality, etc., for those instances in which a presenter does not have a computer device available to conduct presentations. In addition, on a case-by-case basis and as justified by extensive travel or consistent out-of-office meetings, NERC will provide an iPad with cellular data access for persons who require functionality but are unable to use a laptop for computing needs.

## Computer Supplies

Computer supplies are expense items required for infrastructure support and include computer monitors, mice, keyboard, cell phones, cables, encrypted hard drives, encrypted thumb drives, encryption keys, uninterruptible power supplies (UPS), privacy screens, phone headsets, docking stations, computer memory, and any other computer supplies or components required to support the technology infrastructure.

## Maintenance and Service Agreements

Maintenance and Service Agreements comprise those items required to support internal and external access to routers, switches, firewalls, intrusion protection, 100-fileservers, audiovisual, storage area network, data backup services, network and security monitoring, co-location data center services, video conferencing, digital certificates, and development and virtualization software. Service agreements
related to the co-location data center, offsite backup of over 100 terabytes of data, conference calling, and network and security monitoring consume a large portion of the maintenance and service agreements budget.

## Software

Tools such as SharePoint Designer, Microsoft Visio, and Crystal Reports Developer are included under this line item. The tools are primarily used for NERC infrastructure purposes to develop SharePoint workflow, to create development process flows, and for reporting.

## Express Shipping

Express shipping is for shipping of IT computers and computer supplies. This expense item was not separately budgeted in 2014.

## 2015 IT Fixed Asset (Capital) Expenses

The following table presents a summary of NERC's 2015 fixed asset (capital) budget:

| Fixed Assets |  | Budget <br> 2014 | Budget <br> 2015 | Variance |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Computer \& Software CapEx | $\$$ | $2,258,800$ | $\$$ | $2,953,500$ | $\$$ | 694,700 |
| Equipment CapEx | $\$$ | 213,000 | $\$$ | 365,000 | $\$$ | 152,000 |

As in prior years, the goal of the 2015-2017 planning period is to provide access, visibility, and analysis of data from many different sources across the ERO; this will require significant investment in hardware, software, and associated tools. The overarching theme is to securely gather, analyze, and maintain data across the ERO Enterprise to support ERO operations. Adding the capability to centralize and mine data, in addition to foundational elements such as disaster recovery and application development, sets the stage for vastly improved reporting, business intelligence, and capability for collaboration and sharing of information vital to the ERO's mission.

In addition to the investments described above to support efficiency and consistency across the enterprise, the 2015 budget also includes the cost of software, servers, laptops, and other hardware to support daily operations.

| Statement of Activities and Fixed Assets Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| INFORMATION TECHNOLOGY |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{gathered} 2014 \\ \text { Budget } \end{gathered}$ |  | $\begin{gathered} 2014 \\ \text { rojection } \end{gathered}$ |  | iance <br> rojection <br> Budget <br> (Under) |  | $\begin{gathered} 2015 \\ \text { Budget } \\ \hline \end{gathered}$ |  | iance <br> Budget <br> Budget <br> Under) |
| Funding |  |  |  |  |  |  |  |  |  |  |
| ERO Funding |  |  |  |  |  |  |  |  |  |  |
| NERC Assessments | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Penalty Sanctions | \$ | - |  | - |  |  |  | - |  |  |
| Total NERC Funding | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Third-Party Funding |  | - |  | - |  | - |  | - |  | - |
| Testing Fees |  | - |  | - |  | - |  | - |  | - |
| Services \& Software |  | - |  | - |  | - |  | - |  | - |
| Workshops |  | - |  | - |  | - |  | - |  | - |
| Interest |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Total Funding (A) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Expenses |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 2,013,859 | \$ | 2,202,292 | \$ | 188,433 | \$ | 2,477,896 | \$ | 464,037 |
| Payroll Taxes |  | 136,366 |  | 165,042 |  | 28,676 |  | 160,263 |  | 23,897 |
| Benefits |  | 317,097 |  | 311,150 |  | $(5,947)$ |  | 356,502 |  | 39,405 |
| Retirement Costs |  | 229,767 |  | 199,411 |  | $(30,356)$ |  | 277,094 |  | 47,327 |
| Total Personnel Expenses | \$ | 2,697,089 | \$ | 2,877,895 | \$ | 180,806 | \$ | 3,271,754 | \$ | 574,665 |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 5,000 | \$ | 4,798 | \$ | (202) | \$ | 3,169 | \$ | $(1,831)$ |
| Travel |  | 59,243 |  | 34,544 |  | $(24,699)$ |  | 35,000 |  | $(24,243)$ |
| Conference Calls |  | 4,800 |  | 15,000 |  | 10,200 |  | 13,000 |  | 8,200 |
| Total Meeting Expenses | \$ | 69,043 | \$ | 54,342 | \$ | $(14,701)$ | \$ | 51,169 | \$ | $(17,874)$ |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | 1,944,000 | \$ | 2,468,808 | \$ | 524,808 | \$ | 1,729,600 | \$ | $(214,400)$ |
| Office Rent |  | - |  | - |  | - |  |  |  | - |
| Office Costs |  | 2,279,770 |  | 2,244,602 |  | $(35,168)$ |  | 2,143,420 |  | $(136,350)$ |
| Professional Services |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | 500 |  | - |  | (500) |  | 500 |  | - |
| Depreciation |  | 1,330,443 |  | 1,024,148 |  | $(306,295)$ |  | 1,330,443 |  | - |
| Total Operating Expenses | \$ | 5,554,713 | \$ | 5,737,558 | \$ | 182,845 | \$ | 5,203,963 | \$ | $(350,750)$ |
| Total Direct Expenses | \$ | 8,320,845 | \$ | 8,669,795 | \$ | 348,950 | \$ | 8,526,886 | \$ | 206,041 |
| Indirect Expenses |  | $(8,320,845)$ | \$ | $(8,669,795)$ | \$ | $(348,950)$ | \$ | $(8,526,886)$ | \$ | $(206,041)$ |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total Expenses (B) | \$ | - | \$ | - | \$ | (0) | \$ | - | \$ | 0 |
| Change in Assets | \$ | - | \$ | - | \$ | 0 | \$ | - | \$ | (0) |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |
| Depreciation |  | $(1,330,443)$ |  | $(1,024,148)$ |  | 306,295 |  | $(1,330,443)$ |  | - |
| Computer \& Software CapEx |  | 2,258,800 |  | 1,508,742 |  | $(750,058)$ |  | 2,953,500 |  | 694,700 |
| Furniture \& Fixtures CapEx |  | - |  | - |  | - |  | - |  | - |
| Equipment CapEx |  | 213,000 |  | 186,721 |  | $(26,279)$ |  | 365,000 |  | 152,000 |
| Leas ehold Improvements |  | - |  | - |  |  |  | - |  | - |
| Allocation of Fixed Assets | \$ | $(1,141,357)$ | \$ | $(671,315)$ |  | 470,042 | \$ | $(1,988,057)$ | \$ | $(846,700)$ |
| Inc(Dec) in Fixed Assets ( C ) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ | - | \$ | - | \$ | (0) | \$ | - | \$ | 0 |
| FTEs | 18.07 |  |  | 18.40 |  | 0.33 |  | 19.70 |  | 1.63 |

## Summary of Variances by Category - 2015 Budget Compared to 2014 Budget

- Personnel - Personnel expenses are projected to increase in 2015 due primarily to FTEs reallocated to this department in 2014.
- Meetings, Travel and Conferencing Expenses - The projected reductions are based upon prior year actual and 2014 projected costs.
- Consultants and Contracts - The reduction is primarily due to lower budgeted costs for applications enhancements, consulting, and help desk support.
- Office Costs - The decrease is primarily related to software and hardware annual maintenance agreements and data center hosting expenses.


## Human Resources

| Human Resources <br> (in whole dollars) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 Budget |  | 2015 Budget |  | Increase <br> (Decrease) |  |
| Total FTEs |  | 2.88 |  | 2.81 |  | (0.07) |
| Total Direct Expenses | \$ | 1,104,974 | \$ | 1,158,304 | \$ | 53,330 |
| Inc(Dec) in Fixed Assets | \$ | - | \$ | - | \$ | - |

## Background and Scope

Human Resources (HR) manages all of NERC's HR functions, including new hires, benefits, and employee functions. This area also oversees NERC's employee performance appraisal and incentive structure process. Management has implemented a robust, objective, and auditable performance management system to track corporate, departmental, and individual performance against pre-established goals, objectives, and measures. Each year NERC continues to refine and improve this system. In 2012, NERC implemented a new time accounting system to facilitate tracking of time by functional activities or, where appropriate, specific projects.

## Executive Training and Development

As the risk-based methodology to improve reliability is further developed and deployed, NERC will use experienced consultants to provide strategic guidance and training for the executive team to frame problems according to highest potential risk factors and prioritize them to solve big issues. The executive leadership team may also receive additional training and development initiatives geared toward promoting collaboration and consensus building to improve knowledge sharing and team performance.

## Staff Development

Management believes that access to knowledge is a key differentiator for NERC and that it ensures retention and high performance. Therefore, NERC will invest in learning opportunities for staff in several areas. First, HR will continue to host and optimize an e-leaning platform, SkillSoft, to provide staff resources for improving soft and technical skills. Second, HR will provide staff development training though real-world access via tours of and training on control centers, electric substations, and power generation plants. Finally, staff will have access to additional education, including but not limited to degree-oriented university education, pursuit of specialized certifications, and other in-house and external training that provides essential knowledge and skills development that will lead to improved staff performance.

## Compensation Consulting

HR will continue to rely on market data to drive its attraction, engagement, and retention model. Periodically, HR will have a compensation consultant examine the current market data to ensure that decisions affecting compensation are made in light of the current market climate and that qualified employees are attracted and retained within a defined total remuneration range. To protect NERC's substantial investment in human capital, HR will also engage consultants to consider proven successful compensation models and practices prevalent within the market. Similarly, HR may retain compensation subject matter experts to perform periodic assessments of the BOT compensation model to ensure alignment with market practices. NERC's compensation policy and analysis of market data will be based
on total remuneration, taking into account base and incentive compensation, as well as the value of benefits.

## Surveys

HR will retain a vendor to conduct periodic Board of Trustees and committee effectiveness surveys to identify improvement opportunities. HR will also launch additional surveys as appropriate, based on business needs, which may include periodic internal climate surveys.

## Succession Planning

Minimizing disruption of knowledge, skill, and experience bases of key staff is critical to the company's success. HR works with senior management to identify essential roles and develop strategies to build succession and contingency plans for any loss of staff.

## HR Products and Services Automation

Paramount to an effective HR department is the use of electronic and automated products and services. HR will continue to operate, maintain, and investigate investment in additional electronic platforms for HR support services.

## Resource Requirements

## Personnel

No additional personnel are budgeted for this department in 2015.

## Contractor Expenses

Contractor and consultant expenses are higher than 2014 budgeted amounts to support HR services and are set forth in additional detail in Exhibit C.

## Miscellaneous Expenses

Miscellaneous expenses include Community Responsibility and Employee Engagement, Year-end Holiday Catering, and a portion of the budget for Employee Rewards and Recognition.

| Statement of Activities and Fixed Assets Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HUMAN RESOURCES |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{gathered} 2014 \\ \text { Budget } \\ \hline \end{gathered}$ |  | 2014 <br> ojection |  | ance <br> jection <br> Budget <br> Under) |  | $\begin{gathered} 2015 \\ \text { Budget } \\ \hline \end{gathered}$ |  | udget <br> Budget <br> nder) |
| Funding |  |  |  |  |  |  |  |  |  |  |
| NERC Assessments | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Penalty Sanctions | \$ | - |  | - |  |  |  | - |  |  |
| Total NERC Funding | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Third-Party Funding |  | - |  | - |  | - |  | - |  | - |
| Testing Fees |  | - |  | - |  | - |  | - |  | - |
| Services \& Software |  | - |  | - |  | - |  | - |  | - |
| Workshops |  | - |  | - |  | - |  | - |  | - |
| Interest |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Total Funding (A) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Expenses |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 595,009 | \$ | 557,071 | \$ | $(37,938)$ | \$ | 606,214 | \$ | 11,205 |
| Payroll Taxes |  | 23,428 |  | 26,607 |  | 3,179 |  | 23,797 |  | 369 |
| Benefits |  | 50,539 |  | 49,725 |  | (814) |  | 50,929 |  | 390 |
| Retirement Costs |  | 42,721 |  | 44,262 |  | 1,541 |  | 42,964 |  | 243 |
| Total Personnel Expenses | \$ | 711,697 | \$ | 677,665 | \$ | $(34,032)$ | \$ | 723,904 | \$ | 12,207 |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 2,000 | \$ | 1,000 | \$ | $(1,000)$ | \$ | 1,500 | \$ | (500) |
| Travel |  | 10,897 |  | 14,000 |  | 3,103 |  | 14,000 |  | 3,103 |
| Conference Calls |  | 600 |  | 600 |  | - |  | 1,247 |  | 647 |
| Total Meeting Expenses | \$ | 13,497 | \$ | 15,600 | \$ | 2,103 | \$ | 16,747 | \$ | 3,250 |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | 257,500 | \$ | 332,000 | \$ | 74,500 | \$ | 298,275 | \$ | 40,775 |
| Office Rent |  | - |  | - |  | - |  | - |  | - |
| Office Costs |  | 16,500 |  | 13,791 |  | $(2,709)$ |  | 14,099 |  | $(2,401)$ |
| Professional Services |  | 80,280 |  | 75,280 |  | $(5,000)$ |  | 80,280 |  | - |
| Miscellaneous |  | 25,500 |  | 25,500 |  | - |  | 25,000 |  | (500) |
| Depreciation |  | - |  | 7,733 |  | 7,733 |  | - |  | - |
| Total Operating Expenses | \$ | 379,780 | \$ | 454,305 | \$ | 74,525 | \$ | 417,654 | \$ | 37,874 |
| Total Direct Expenses | \$ | 1,104,974 |  | 1,147,570 | \$ | 42,596 | \$ | 1,158,304 | \$ | 53,330 |
| Indirect Expenses | \$ | (1,104,974) |  | (147,570) | \$ | $(42,596)$ | \$ | (1,158,304) | \$ | $(53,330)$ |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total Expenses (B) | \$ | - | \$ | - | \$ | 0 | \$ | - | \$ | 0 |
| Change in Assets | \$ | - | \$ | - | \$ | (0) | \$ | - | \$ | (0) |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |
| Depreciation |  | - |  | $(7,733)$ |  | $(7,733)$ |  | - |  | - |
| Computer \& Software CapEx |  | - |  | - |  | - |  | - |  | - |
| Furniture \& Fixtures CapEx |  | - |  | - |  |  |  | - |  | - |
| Equipment CapEx |  | - |  | - |  |  |  | - |  | - |
| Leasehold Improvements |  | - |  | - |  |  |  | - |  | - |
| Allocation of Fixed Assets | \$ | - | \$ | 7,733 | \$ | 7,733 |  | - |  | - |
| Inc(Dec) in Fixed Assets ( C ) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ | - | \$ | - | \$ | 0 | \$ | - | \$ | 0 |
| FTES |  | 2.88 |  | 2.94 |  | 0.06 |  | 2.81 |  | (0.07) |

## Summary of Variances by Category - 2015 Budget Compared to 2014 Budget

- Personnel - Salaries expense includes a total corporate budget for employment agency fees and temporary office services. The budget for these expenses remains the same in 2015 as was budgeted in 2014.
- Travel - The increase is based upon 2013 actual and projected 2014 costs.
- Consultants and Contracts - The increase is to provide additional HR support services.
- Office Costs - The decrease is primarily related to a reduction in the cost of telecommunications on a per-FTE basis.


## Finance and Accounting

| Accounting and Finance (in whole dollars) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 Budget |  | 2015 Budget |  | Increase <br> (Decrease) |  |
| Total FTEs |  | 12.48 |  | 16.89 |  | 4.41 |
| Total Direct Expenses | \$ | 2,617,147 | \$ | 3,096,886 | \$ | 479,739 |
| Inc(Dec) in Fixed Assets | \$ | - | \$ | - | \$ | - |

## Background and Scope

NERC's Finance and Accounting department manages all finance and accounting functions, including employee payroll, 401(k) and 457(b) plans, travel and expense reporting, monthly financial reporting, sales and use tax, meeting and events planning and services, insurance, internal auditing, and facilities management. This area also holds primary responsibility for the development of the annual business plan and budget, as well as NERC's proposed ERO risk management framework. Over the past several years, NERC's Finance and Accounting department implemented additional policies, procedures, and controls governing day-to-day practices including contract and personnel procurements, meetings, conference planning and travel, expense reimbursement, and back office systems and procedures. The department will continue to refine, improve, and where necessary implement additional procedures and controls.

## Resource Requirements

## Personnel

Several FTEs have been reallocated to this department during 2014. One additional FTE will be added to this department in 2015 to strengthen segregation of duties, cross training, and back-up functions.

## Contractor Expenses

Approximaely $\$ 339 \mathrm{k}$ is budgeted for outside contractor and consulting support, representing a decrease compared to the 2014 budget. These costs are primarily for outside professional support for auditors to support various risk management and internal control intiatives, as well as to provide finance and accounting support.

| Statement of Activities and Fixed Assets Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FINANCE and ACCOUNTING |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{gathered} 2014 \\ \text { Budget } \end{gathered}$ |  | $\begin{gathered} 2014 \\ \text { Projection } \end{gathered}$ |  | riance <br> rojection <br> 4 Budget <br> (Under) |  | 2015 <br> Budget |  | ance <br> Budget <br> Budget <br> Under) |
| Funding |  |  |  |  |  |  |  |  |  | ERO Funding |
| NERC Assessments | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Penalty Sanctions | \$ | - |  | - |  |  |  | - |  |  |
| Total NERC Funding | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Third-Party Funding |  | - |  | - |  | - |  | - |  | - |
| Testing Fees |  | - |  | - |  | - |  | - |  | - |
| Services \& Software |  | - |  | - |  | - |  | - |  | - |
| Workshops |  | - |  | - |  | - |  | - |  | - |
| Interest |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Total Funding (A) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Expenses |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 1,379,476 | \$ | 1,590,905 | \$ | 211,429 | \$ | 1,770,583 | \$ | 391,107 |
| Payroll Taxes |  | 81,128 |  | 108,894 |  | 27,766 |  | 105,402 |  | 24,274 |
| Benefits |  | 219,002 |  | 253,392 |  | 34,390 |  | 288,597 |  | 69,595 |
| Retirement Costs |  | 155,391 |  | 171,089 |  | 15,698 |  | 197,906 |  | 42,515 |
| Total Personnel Expenses | \$ | 1,834,997 | \$ | 2,124,280 | \$ | 289,283 | \$ | 2,362,488 | \$ | 527,491 |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 5,650 | \$ | 2,500 | \$ | $(3,150)$ | \$ | 2,500 | \$ | $(3,150)$ |
| Travel |  | 62,500 |  | 48,765 |  | $(13,735)$ |  | 48,500 |  | $(14,000)$ |
| Conference Calls |  | 4,000 |  | 8,000 |  | 4,000 |  | 9,560 |  | 5,560 |
| Total Meeting Expenses | \$ | 72,150 | \$ | 59,265 | \$ | $(12,885)$ | \$ | 60,560 | \$ | $(11,590)$ |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | 400,000 | \$ | 359,252 | \$ | $(40,748)$ | \$ | 339,500 | \$ | $(60,500)$ |
| Office Rent |  | - |  | - |  | - |  | - |  | - |
| Office Costs |  | 29,500 |  | 31,744 |  | 2,244 |  | 37,838 |  | 8,338 |
| Professional Services |  | 280,000 |  | 225,000 |  | $(55,000)$ |  | 296,000 |  | 16,000 |
| Miscellaneous |  | 500 |  | 500 |  | - |  | 500 |  | - |
| Depreciation |  | - |  | 2,201 |  | 2,201 |  | - |  | - |
| Total Operating Expenses | \$ | 710,000 | \$ | 618,697 | \$ | $(91,303)$ | \$ | 673,838 | \$ | $(36,162)$ |
| Total Direct Expenses | \$ | 2,617,147 | \$ | 2,802,242 | \$ | 185,095 | \$ | 3,096,886 | \$ | 479,739 |
| Indirect Expenses | \$ | $(2,617,147)$ | \$ | $(2,802,242)$ | \$ | $(185,095)$ | \$ | $(3,096,886)$ | \$ | $(479,739)$ |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total Expenses (B) | \$ | - | \$ | - | \$ | (1) | \$ | - | \$ | (1) |
| Change in Assets | \$ | - | \$ | - | \$ | 1 | \$ | - | \$ | 1 |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |
| Depreciation |  | - |  | $(2,201)$ |  | $(2,201)$ |  | - |  | - |
| Computer \& Software CapEx |  | - |  | - |  |  |  | - |  | - |
| Furniture \& Fixtures CapEx |  | - |  | - |  |  |  | - |  | - |
| Equipment CapEx |  | - |  | - |  |  |  | - |  | - |
| Leasehold Improvements |  | - |  | - |  |  |  | - |  | - |
| Allocation of Fixed Assets | \$ | - | \$ | 2,201 | \$ | 2,201 |  | - |  | - |
| Inc(Dec) in Fixed Assets ( C ) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ | - | \$ | - | \$ | (1) | \$ | - | \$ | (1) |
| FTES |  | 12.48 |  | 14.98 |  | 2.50 |  | 16.89 |  | 4.41 |

## Summary of Variances by Category - 2015 Budget Compared to 2014 Budget

- Personnel - Personnel expenses are projected to increase in 2015 due primarily to FTEs reallocated to this department in 2014. Benefits are projected to increase at a slightly higher rate than other personnel expenses due to the higher cost per employee of employee benefits plans due to budgeted market increases in medical and dental plan costs.
- Office Costs - The increase is due to an increase in the number for FTEs in the department.
- Professional Services - The increase is due to implementation of new systems to improve efficiency and controls in processing expenses.


## Section B - Supplemental Financial Information

## Breakdown by Statement of Activity Sections

The following detailed schedules support the consolidated Statement of Activities. All significant variances were described by program area in the preceding pages.

## Table B-1 <br> Working Capital and Operating Reserves Analysis

| Working Capital and Operating Reserve Analysis |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Statutory |  |  |  |  |  |
|  | Total Reserves | Working Capital ${ }^{1}$ | Known Contingencies | Unknown Contingencies | Operator Certification | CRISP |
| Beginning Balance |  |  |  |  |  |  |
| Balance as of 12/31/13-per audit | 6,264,672 | 3,817,478 | 1,000,000 | $(69,672)$ | 1,516,866 |  |
| Less: Adjustment for future liabilities | $(3,817,478)$ | $(3,817,478)$ |  |  |  |  |
| Available Working Capital and Operating Reserves | 2,447,194 | - | 1,000,000 | $(69,672)$ | 1,516,866 | - |
| Generation or (Use) from 2014 Operations |  |  |  |  |  |  |
| From 2014 operations | $2(1,842,482)$ |  | $(150,000)$ | $(1,172,046)$ | $(520,436)$ |  |
| Proceeds from financing activities (non-current portion only) | 1,400,799 |  |  | 1,400,799 |  |  |
| Projected Working Capital and Operating Reserves - 12/31/14 | 2,005,511 | - | 850,000 | 159,081 | 996,430 | - |
| Required Working Capital and Operating Reserves - 12/31/15 | 3,100,469 | - | - | 2,009,081 | 591,388 | 500,000 |
| Adjustment to achieve required reserve balance | 1,094,958 | - | $(850,000)$ | 1,850,000 * | $(405,042)$ | 500,000 |
|  | - |  | - |  |  |  |
| Increase(decrease) in funding requirement to adjust reserve balance | 1,094,958 | - | (850,000) | 1,850,000 | $(405,042)$ | 500,000 |
| 2015 Expenses and Capital Expenditures | 66,649,309 |  |  | 55,853,076 | 1,475,109 | 9,321,123 |
| Less: Penalty Sanctions received 7/1/13-7/31/14 | $(1,155,000)$ |  |  | $(1,155,000)$ |  |  |
| Less: Other Funding Sources | $(10,907,889)$ |  |  | $(894,232)$ | $(1,070,068)$ | (8,943,589) |
| Adjustment to achieve desired reserve balance | 1,094,958 | - | $(850,000)$ | 1,850,000 | $(405,042)$ | 500,000 |
| Less: Proceeds from financing activities (non-current only) | $(1,266,667)$ |  |  | $(1,266,667)$ |  |  |
| Plus: debt service | 893,664 |  |  | 893,664 |  |  |
| 2015 NERC Assessment | 55,308,375 | - | (850,000) | 55,280,841 | - | 877,534 |

[^20]
## Table B-2 <br> Penalties

## Penalty Sanctions

Penalty monies received prior to June 30, 2014, are to be used to offset assessments in the 2015 budget, as documented in NERC Policy - Accounting, Financial Statement and Budgetary Treatment of Penalties Imposed and Received for Violations of Reliability Standard, as well as Section 1107.2 of the Rules of Procedure. Penalty monies received from July 1, 2014, through June 30, 2015, will be used to offset assessments in the 2016 budget. In addition, pursuant to Section 1107.4 of the Rules of Procedure, management is requesting approval to apply $\$ 1 \mathrm{M}$ in penalty funds received on July 9, 2014 to offset 2015 assessments.

All penalties received as of July 9, 2014, are detailed below, including the amount and date received.

## Allocation Method

Penalty sanctions received have been allocated to the following statutory programs to reduce assessments: Reliability Standards, Regional Entity Assurance and Oversight, Compliance Analysis, Registration and Certification, Compliance Enforcement, Reliability Assessments and Performance Analysis, Training and Education, Situational Awareness, Event Analysis and Investigations, the Critical Infrastructure Department, and the ES-ISAC. Penalty sanctions are allocated based upon the number of FTEs in the program divided by the aggregate total FTEs in the programs receiving the allocation.

## Penalty Sanctions

Penalties received between 7/1/2013 and 6/30/2014

| $7 / 15 / 2013$ | $\$$ | 25,000 |
| :--- | :--- | ---: |
| $11 / 7 / 2013$ |  | 120,000 |
| $11 / 8 / 2013$ |  | 5,000 |
| $12 / 2 / 2013$ |  | 5,000 |
|  | $\$$ | 155,000 |

Penalties received after 6/30/2014, but included in the 2015 Budget

$$
7 / 9 / 2014 \quad \$ \quad 1,000,000
$$

Total Penalty Sanctions included in the 2015 Budget
$\$ \quad 1,155,000$

## Table B-3 Outside Funding

| Outside Funding Breakdown By Program (Excluding Penalty Sanction) | Budget$2014$ |  | $\begin{aligned} & \text { Projection } \\ & 2014 \end{aligned}$ |  | $\begin{gathered} \text { Budget } \\ 2015 \end{gathered}$ |  | Variance <br> 2015 Budget v 2014 Budget |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reliability Standards |  |  |  |  |  |  |  |  |
| Workshops | \$ | 104,000 | \$ | 104,000 | \$ | 104,000 | \$ | - |
| Interest Allocation |  | 3,976 |  | 522 |  | 587 |  | $(3,389)$ |
| Total | \$ | 107,976 | \$ | 104,522 | \$ | 104,587 | \$ | $(3,389)$ |
| Compliance Analysis, Registration and Certification |  |  |  |  |  |  |  |  |
| Interest Allocation | \$ | - | \$ | 254 | \$ | 271 | \$ | 271 |
| Total | \$ | 46,332 | \$ | 254 | \$ | 271 | \$ | 271 |
| Regional Entity Assurance and Oversight |  |  |  |  |  |  |  |  |
| Workshops | \$ | 40,000 | \$ | - | \$ | - | \$ | $(40,000)$ |
| Interest Allocation |  | 3,534 |  | 254 |  | 293 |  | $(3,241)$ |
| Total | \$ | 46,332 | \$ | 254 | \$ | 293 | \$ | $(43,241)$ |
| Compliance Enforcement |  |  |  |  |  |  |  |  |
| Interest Allocation | \$ | 2,798 | \$ | 293 | \$ | 361 | \$ | $(2,437)$ |
| Total | \$ | 46,332 | \$ | 293 | \$ | 361 | \$ | $(2,437)$ |
| Reliability Assessments and Performance Analysis |  |  |  |  |  |  |  |  |
| pc_GAR Software | \$ | 50,000 | \$ | 50,000 | \$ | 50,000 | \$ | - |
| Workshops |  | 40,000 |  | 40,000 |  | 17,500 |  | $(22,500)$ |
| Interest Allocation |  | 2,913 |  | 405 |  | 474 |  | $(2,439)$ |
| Total | \$ | 92,913 | \$ | 90,405 | \$ | 67,974 | \$ | $(24,939)$ |
| Training and Education |  |  |  |  |  |  |  |  |
| Testing Fees and Certificate Renewals | \$ | 1,035,000 | \$ | 1,020,000 | \$ | 1,070,000 | \$ | 35,000 |
| CEH Fees |  | 600,000 |  | 600,000 |  | 600,000 |  | - |
| Interest Allocation |  | 1,252 |  | 162 |  | 192 |  | $(1,060)$ |
| Total | \$ | 1,621,252 | \$ | 1,620,162 | \$ | 1,670,192 | \$ | 33,940 |
| Event Analysis |  |  |  |  |  |  |  |  |
| Workshops | \$ | 50,000 | \$ | 50,000 | \$ | 47,300 | \$ | $(2,700)$ |
| Interest Allocation |  | 1,473 |  | 197 |  | 226 |  | $(1,247)$ |
| Total | \$ | 51,473 | \$ | 50,197 | \$ | 47,526 | \$ | $(3,947)$ |
| Situation Awareness |  |  |  |  |  |  |  |  |
| Workshops | \$ | 75,000 | \$ | - | \$ | - | \$ | $(75,000)$ |
| Interest Allocation |  | 957 |  | 127 |  | 147 |  | (810) |
| Total | \$ | 75,957 | \$ | 127 | \$ | 147 | \$ | $(75,810)$ |
| Critical Infrastructure Department |  |  |  |  |  |  |  |  |
| Workshops | \$ | 45,000 | \$ | 45,000 | \$ | 72,500 | \$ | 27,500 |
| Interest Allocation |  | 3,098 |  | 162 |  | 203 |  | $(2,895)$ |
| Total | \$ | 48,098 | \$ | 45,162 | \$ | 72,703 | \$ | 24,605 |
| ES-ISAC |  |  |  |  |  |  |  |  |
| Third Party Funding (CRISP) |  |  |  |  |  | 8,943,589 |  | 8,943,589 |
| Interest Allocation |  |  |  | 157 |  | 248 |  | 248 |
| Total | \$ | - | \$ | 157 | \$ | 8,943,837 | \$ | 8,943,837 |
| Total Outside Funding | \$ | 2,044,000 | \$ | 1,910,986 | \$ | 10,907,235 | \$ | $(49,270)$ |

## Explanation of Significant Variances - 2015 Budget Compared to 2014 Budget

- Regional Entity Assurance and Oversight - Workshop fees are not budgeted in 2015 because the workshops are being held in NERC or Regional Entity offices at significantly lower cost than hotels.
- Reliability Assessments and Performance Analysis - Historically, NERC charged nominal license fees to help defray a portion of the costs of operating, maintaining, and administering pc-GAR, a complex legacy software application used to provide industry with access to certain generator and transmission data. In response to its 2013 Business Plan and Budget (in which NERC indicated it would discontinue the licensing of this software and data availability and therefore excluded any projection of licensing fees in its 2013 budget), NERC received feedback from industry expressing a strong desire for continuing to provide access. Upon further review and consideration, NERC management felt that it was important to retain control of the licensing in order to ensure the protection of confidential information and that the assessment activities performed by RAPA would also benefit from the continued industry utilization of pc-GAR. As previously described under the RAPA section of this business plan and budget, NERC expects to commence development of a replacement software application for pc-GAR in Q4 2013, and funding is included in the Fixed Asset portion of the 2015 Business Plan and Budget for this activity. Any fees for licensing of the pc-GAR software in 2015 will be used to offset development costs of the replacement application, as well operation and maintenance costs for the existing and replacement applications.

The reduction in workshop fees is due to the decision to not charge attendance fees at one of two meetings.

- Training and Education - The increase is related to a higher number of tests being administered in 2015.
- Situation Awareness - Reduced number of workshops due to the transition of the NASPI support to the private sector.
- Critical Infrastructure Protection - Workshop fees associated with the Grid Security Conference are budgeted to be higher than 2014 based upon 2013 actual results.
- ES-ISAC - The increase is related to third party funding of CRISP.



## Explanation of Significant Variances - 2015 Budget Compared to 2014 Budget

The increase in salaries, payroll taxes, and retirement expenses is due to the increase in FTEs, budgeted salary increases, the addition of more senior staff in 2014, and the need to pay higher market-based compensation than previously budgeted to attract and retain employees. The average cost per FTE is also affected by an increase in the across-the-board FTE adjustment to account for attrition and hiring delaysfrom $4 \%$ in 2014 to $6 \%$ in 2015. This reduced the total number of FTEs budgeted in all departments, offset by the addition of three positions in the ES-ISAC department. In addition to the increase in the number of FTEs on staff, benefits are budgeted to increase based upon the most recent market data as provided by NERC's insurance broker. Payroll taxes are increasing at a higher percentage due to an increase in the maximum salary subject to FICA taxes.

## Table B-5

NOTE: This table has been replaced by Exhibit C.

## Table B-6

## Rent

| Rent |  | $\begin{gathered} \text { Budget } \\ 2014 \end{gathered}$ |  | $\begin{aligned} & \text { Projection } \\ & 2014 \end{aligned}$ |  | $\begin{gathered} \text { Budget } \\ 2015 \end{gathered}$ | Variance 2015 Budget v 2014 Budget |  | Variance \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Office Rent | \$ | 2,617,300 | \$ | 2,650,299 | \$ | 2,987,777 | \$ | 370,477 | 14.15\% |
| Total Office Rent | \$ | 2,617,300 | \$ | 2,650,299 | \$ | 2,987,777 | \$ | 370,477 | 14.15\% |

The increase is related to the proposal to acquire additional space in the Washington, DC office for the separation of the ES-ISAC from other NERC operations and to the projected decrease in rent income from the subtenant in NERC's former Washington, DC offices.

## Table B-7 <br> Office Costs

| Office Costs | Budget$2014$ |  | $\begin{gathered} \text { Projection } \\ 2014 \end{gathered}$ |  | $\begin{gathered} \text { Budget } \\ 2015 \end{gathered}$ |  | Variance 2015 Budget v 2014 Budget |  | $\begin{gathered} \text { Variance } \\ \text { \% } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Telephone | \$ | 628,000 | \$ | 464,422 | \$ | 560,318 | \$ | $(67,682)$ | -10.78\% |
| Telephone Answering Srv |  |  |  | 2,341 |  | 3,000 |  | 3,000 |  |
| Internet |  | 310,000 |  | 407,911 |  | 403,357 |  | 93,357 | 30.12\% |
| Office Supplies |  | 199,300 |  | 200,812 |  | 189,600 |  | $(9,700)$ | -4.87\% |
| Computer Supplies and Maintenance |  |  |  |  |  |  |  | - |  |
| Computers |  | 4,500 |  | 4,500 |  | 9,000 |  | 4,500 | 100.00\% |
| Computer Supplies |  | 95,400 |  | 100,652 |  | 100,100 |  | 4,700 | 4.93\% |
| Maintenance \& Service Agreements |  | 1,676,029 |  | 1,539,704 |  | 1,749,979 |  | 73,950 | 4.41\% |
| Software |  | 141,500 |  | 199,925 |  | 140,680 |  | (820) | -0.58\% |
| Network Supplies |  |  |  | 5,400 |  |  |  | - |  |
| Publications \& Subscriptions |  | 32,995 |  | 47,184 |  | 40,495 |  | 7,500 | 22.73\% |
| Dues |  | 41,750 |  | 67,709 |  | 53,000 |  | 11,250 | 26.95\% |
| Postage |  | 19,600 |  | 12,965 |  | 12,300 |  | $(7,300)$ | -37.24\% |
| Express Shipping |  | 34,000 |  | 29,033 |  | 38,500 |  | 4,500 | 13.24\% |
| Copying |  | 115,000 |  | 116,257 |  | 65,000 |  | $(50,000)$ | -43.48\% |
| Reports |  | 8,000 |  | 3,000 |  | 3,000 |  | $(5,000)$ | -62.50\% |
| Stationary/Forms |  | 10,000 |  | 2,500 |  | 5,000 |  | $(5,000)$ | -50.00\% |
| Equipment Repair/Service Contracts |  | 70,000 |  | 70,000 |  | 100,000 |  | 30,000 | 42.86\% |
| Bank Charges |  | 20,000 |  | 43,000 |  | 20,000 |  | - | 0.00\% |
| Taxes |  | 15,000 |  | 5,000 |  | 5,000 |  | $(10,000)$ | -66.67\% |
| Merchant Card Fees |  | 85,000 |  | 87,792 |  | 85,000 |  | - | 0.00\% |
| Total Office Costs | \$ | 3,506,074 | \$ | 3,410,107 | \$ | 3,583,328 | \$ | 77,254 | 2.20\% |

## Explanation of Significant Variances - 2015 Budget Compared to 2014 Budget

The increase in Office Costs is primarily due higher maintenance and service agreement costs related to data storage requirements of CRISP, offset by a reduction in costs resulting from the decision to purchase the necessary hardware and software to back up NERC data and eliminate the monthly service to provide this capability. The increases in Internet and Equipment Repair/Service Contracts and the decrease in Copying are based upon 2014 projected costs.

## Table B-8 <br> Professional Services

| Professional Services | $\begin{gathered} \text { Budget } \\ 2014 \end{gathered}$ |  | $\begin{gathered} \text { Projection } \\ 2014 \end{gathered}$ |  | $\begin{gathered} \text { Budget } \\ 2015 \\ \hline \end{gathered}$ |  | Variance2015 Budget v2014 Budget |  | Variance \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Independent Trustee Fees | \$ | 1,000,000 | \$ | 1,000,000 | \$ | 1,085,000 | \$ | 85,000 | 8.50\% |
| Trustee Search Fee |  | 70,000 |  | 70,000 |  | - |  | $(70,000)$ | -100.00\% |
| Outside Legal |  | 740,000 |  | 740,000 |  | 930,000 |  | 190,000 | 25.68\% |
| Lobbying Fees |  | 50,000 |  | 50,000 |  | 50,000 |  | - | 0.00\% |
| Accounting \& Auditing Fees |  | 150,000 |  | 150,000 |  | 150,000 |  | - | 0.00\% |
| Insurance Commercial |  | 100,000 |  | 100,000 |  | 200,000 |  | 100,000 | 100.00\% |
| Outside Services |  | 180,280 |  | 180,280 |  | 196,280 |  | 16,000 | 8.88\% |
| Total Services | \$ | 2,290,280 | \$ | 2,290,280 | \$ | 2,611,280 | \$ | 321,000 | 14.02\% |

The Professional Services budget includes a previously approved increase in trustee fees, offset by the reduction in trustee search fees, which will not be required in $2015 .{ }^{27}$ The increase in outside legal fees is related to outside counselto support CRISPoffset by a reduction in costs included in the 2014 budget for completion of the 5 -year performance assessment which will not be incurred in 2015. The increase in Insurance is related to the purchase of certain addtional insurance required by the terms of the CRISP Master Serivces Agreement. The projected increase in outside service costs is primarily due to higher costs associated with accounting systems implemented at the beginning of 2014.

## Table B-9

 Miscellaneous| Miscellaneous Expenses |  | $\begin{gathered} \text { Budget } \\ 2014 \end{gathered}$ |  | $\begin{aligned} & \text { Projection } \\ & 2014 \end{aligned}$ |  | $\begin{gathered} \text { Budget } \\ 2015 \end{gathered}$ |  | Variance <br> 5 Budget v 2014 <br> Budget | Variance \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Miscellaneous Expense | \$ | 6,500 | \$ | 3,000 | \$ | 6,500 | \$ | - | 0.00\% |
| Employee Rewards and Recognition | \$ | 10,000 | \$ | 10,000 |  | 10,000 |  | - | 0.00\% |
| Community Resp \& Employee Engagement |  | 10,000 |  | 10,000 |  | 10,000 |  | - | 0.00\% |
| Year-end Employee Recognition Event |  | 10,000 |  | 10,000 |  | 10,000 |  | - | 0.00\% |
| Total Miscellaneous Expenses | \$ | 36,500 | \$ | 33,000 | \$ | 36,500 | \$ | - | 0.00\% |

The 2015 Miscellaneous Expense budget is $\$ 36,500$, which is equal to the 2014 budget. This budget is intended to cover the cost of (1) token gifts to retiring employees, condolence flowers in the event of a death in the family of an employee, and similar types of miscellaneous expenses ( $\$ 6.5 \mathrm{k}$ ); (2) funds to support Community Responsibility and Employee Engagement Committee activities (\$10k); (3) departmental and company team-building activities and employee rewards and recognition expenses that are not otherwise included in personnel expense (\$10k); and (4) year-end employee recognition meal expenses (\$10k).

[^21]
## Table B-10 <br> Other Non-Operating Expenses

| Other Non-Operating Expenses |  | $\begin{gathered} \text { Budget } \\ 2014 \end{gathered}$ |  | $\begin{aligned} & \text { rojection } \\ & 2014 \end{aligned}$ |  | $\begin{gathered} \text { Budget } \\ 2015 \end{gathered}$ | Variance <br> 2015 Budget v 2014 <br> Budget |  | Variance \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gain/Loss from Sale of Assets |  |  |  |  |  |  | \$ |  |  |
| Property Tax Expense | \$ | 50,000 |  | 50,000 | \$ | 50,000 |  |  |  |
| Office Relocation |  |  |  |  |  |  |  |  |  |
| Interest |  | 94,000 |  | 29,367 |  | 81,000 |  | $(13,000)$ |  |
| Total Other Non-Operating Expenses | \$ | 144,000 | \$ | 79,367 | \$ | 131,000 | \$ | $(13,000)$ | -9.03\% |

The decrease in budgeted interest expense is based on the assumption that2015 draws on the loan will occur at the end of the year instead of the beginning of the year, as further detailed in the Capital Financing, Exhibit D.

## Section C — Non-Statutory Activity

NERC has no non-statutory activities.

## Section D - Supplemental Financial Statements

NORTH AMERICAN ELECTRIC RELIABILITY COPORATION
STATEMENT OF FINANCIAL POSTIION

|  | $\begin{gathered} 12 / 31 / 2013 \\ \text { per Audit } \end{gathered}$ | $\begin{gathered} \text { 12/31/2014 } \\ \text { Projection } \end{gathered}$ | $\begin{aligned} & 12 / 31 / 2015 \\ & \text { Projection } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| ASSETS |  |  |  |
| Cash | 26,182,060 | 26,822,930 | 27,521,607 |
| Trade Accounts receivable, net of allowance for uncollectible accounts of $\$ 0$ and $\$ 62,573$ in 2013 and 2012 | 3,353,895 | 3,353,895 | 3,353,895 |
| Other Receivables | - | - | - |
| Prepaid expenses and other current assets | 869,876 | 869,876 | 869,876 |
| Security deposit | 99,136 | 99,136 | 99,136 |
| Cash value of insurance policies | - | - | - |
| Plan Assets (457b) | 320,660 | 320,660 | 320,660 |
| Property and equipment | 5,645,116 | 6,066,323 | 7,351,817 |
| Total Assets | 36,470,743 | 37,532,820 | 39,516,991 |
| LIABILITIES AND NET ASSETS |  |  |  |
| Liabilities |  |  |  |
| Current Portion |  |  |  |
| Accounts payable and a ccrued expenses (incl, vacation accrual) | 2,917,304 | 2,917,304 | 2,917,304 |
| Accrued Incentive Comp | 4,025,979 | 3,972,691 | 4,194,752 |
| Deferred rent-current | 182,421 | 249,764 | 322,218 |
| Deferred compensation-current | 20,386 | - |  |
| Capital lease obligations - current | 47,108 | (0) | (0) |
| Accrued retirement liabilities | 1,788,624 | 1,570,716 | 1,723,805 |
| Deferred income | 5,287,044 | 5,287,044 | 5,287,044 |
| Regional assessments | 9,427,293 | 9,427,293 | 9,427,293 |
| Capital Project Financing - Current Portion |  | 893,664 | 1,526,997 |
| Total Current Portion | 23,696,159 | 24,318,477 | 25,399,414 |
| Long-Term Portion |  |  |  |
| Deferred compensation ${ }^{1}$ | 597,514 | 597,514 | 597,514 |
| Deferred rent-non-current | 3,817,478 | 3,567,713 | 3,245,495 |
| Capital lease obligations - non-current | - | - | - |
| Capital Project Financing - non-current |  | 1,400,798 | 1,773,801 |
| Total Non-Current Portion | 4,414,992 | 5,566,026 | 5,616,810 |
| Total Liabilities | 28,111,151 | 29,884,502 | 31,016,224 |
| Net Assets - unrestricted | 7,914,592 | 6,493,318 | 8,500,767 |
| Net Assets - restricted | 445,000 | 1,155,000 | - |
| Total Liabilities and Net Assets | 36,470,743 | 37,532,820 | 39,516,991 |

${ }^{1}$ Includes 457b lia bility, life insurance for former executive, and retiree medical

| Working Capital <br> Less: Restriction for future liabilities | $\begin{gathered} 6,264,672 \\ \\ \hline(3,817,478) \\ \hline \end{gathered}$ | $\begin{gathered} 5,573,225 \\ (3,567,713) \\ \hline \end{gathered}$ | $\begin{gathered} 6,345,964 \\ (3,245,495) \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Available Working Capital | 2,447,194 | 2,005,511 | 3,100,469 |
| CRISP |  |  | 500,000 |
| Known and Unknown | 930,328 | 1,009,081 | 2,509,081 |
| PCGC | 1,516,866 | 996,430 | 591,388 |


| Statement of Activities, Fixed Asset Expenditures and Change in Working Capital by Program 2015 Budget | Statuor Toat | Reliballity Sendards |  | Recoional Oesersish | Ilance fircerement |  | Serato Cortication | Education <br> Edinuing | Fvent Anapus | Stuation Awareness | Critical Infrastructure Department | ${ }_{\text {esisac }}$ | General and Administrative (Includes Executive and Gov't Relations) | Legal and Resulatovy | Information Technology | Human Resources | Accounting and Finance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\underbrace{\text { ERO Funding }}_{\text {Funding }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NERC Assessments | 55,38,375 | 9,911,464 | 4,758,043 | 5,621,826 | 5,664,344 | 9,571,195 |  | 1,826,822 | 4,066,804 | 3,588,981 | 4,343,333 | 5,328,566 | 626,997 | - | . | - |  |
| Penalty Sanctions | 1,155,000 | 231,095 | 106,550 | 115,453 | 142,161 | 186,581 |  | 48,871 | 88,839 | 57,774 | 79,936 | 97,742 |  |  |  |  |  |
| Total Nerc Funding | 56,463,375 | 10,142,558 | 4,864,593 | 5,737,279 | 5,806,505 | 9,757,776 |  | 1,875,692 | 4,155,643 | 3,646,755 | 4,423,269 | 5,426,307 | 626,997 | . | . | . |  |
| Third-Party Funding (CRISP) | 8,943,589 |  |  |  |  |  |  |  |  |  |  | 8,943,589 |  |  |  |  |  |
| Testing Fees | 1,67,000 |  |  |  |  |  | 1,070,000 | 600,000 |  |  |  |  |  |  |  |  |  |
| Services \& Sotware | 50,000 |  |  |  |  | 50,000 |  |  |  |  |  |  |  |  |  |  |  |
| Workshops | 241,300 | 104,000 |  |  |  | 17,500 |  |  | 47,300 | - | 72,500 |  |  |  |  |  |  |
| Interest | 3,000 | 587 | 271 | 293 | 361 | 474 | 68 | 124 | 226 | 147 | 203 | 248 |  |  |  |  |  |
| Miscellaneous |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Funding (A) | 67,371,264 | 10,247,145 | 4,864,863 | 5,737,572 | 5,80, 866 | 9,825,750 | 1,070,068 | 2,475,817 | 4,203,169 | 3,646,902 | 4,995,972 | 14,30, 144 | 626,997 | - | - |  |  |
| Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Salaries | 27,580,677 | 3,082,972 | 1,655,833 | 1,783,650 | 1,785,495 | 2,833,480 | 261,314 | 641,792 | 1,447,159 | 849,802 | 1,423,791 | 1,733,405 | 2,425,909 | 2,798,380 | 2,477,896 | 606,214 | 1,770,583 |
| Payroll Taxes | 1,673,628 | 202,258 | 105,003 | 115,456 | 110,866 | 176,963 | 17,632 | 43,305 | 92,831 | 55,831 | 85,20 | 103,696 | 122,928 | 152,178 | 160,263 | 23,97 | 105,402 |
| Benefits | 3,547,178 | 441,383 | 203,715 | 220,692 | 254,644 | 356,502 | 50,929 | 95,130 | 173,284 | 112,106 | 152,786 | 186,739 | 314,644 | 288,597 | 356,502 | 50,929 | 288,597 |
| Retirement costs | 3,001,829 | 346,269 | 186,557 | 200,525 | 200,635 | 317,664 | 29,451 | 71,986 | 162,193 | 95,226 | 159,808 | 195,059 | 203,656 | 314,835 | 277,094 | 42,964 | 197,906 |
| Total Personnel Expenses | 35,803,312 | 4,072,883 | 2,154,108 | 2,320,322 | 2,351,641 | 3,684,609 | 359,326 | 852,213 | 1,875,467 | 1,112,965 | 1,821,605 | 2,218,899 | 3,067,137 | 3,55,990 | 3,271,754 | 723,904 | 2,362,488 |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Meetings | 1,050,000 | 194,056 | 3,064 | 70,000 | 2,000 | 90,018 | 45,000 | 14,931 | 79,228 | 5,000 | 133,134 | 60,000 | 338,900 | 7,500 | 3,169 | 1,500 | 2,500 |
| Travel | 2,203,395 | 339,300 | 164,158 | 198,000 | 57,900 | 313,993 | 6,500 | 18,822 | 114,500 | 45,882 | 188,358 | 126,000 | 426,482 | 106,000 | 35,000 | 14,000 | 48,500 |
| Conference Calls | 312,751 | 117,736 | 3,588 | 7,200 | 2,900 | 31,500 | 1,420 | 27,900 | 10,000 | 2,610 | 21,500 | 24,885 | 28,831 | 8,874 | 13,000 | 1,247 | 9,560 |
| Total Meeting Expenses | 3,56, 146 | 651,092 | 170,810 | 275,200 | 62,800 | 435,511 | 52,920 | 61,653 | 203,728 | 53,492 | 342,992 | 210,885 | 794,213 | 122,374 | 51,169 | 16,747 | 60,560 |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | 14,311,466 |  |  | 388,000 |  | 955,450 | 392,724 | 359,406 |  | 1,077,321 | 426,800 | 8,399,390 | 15,00 |  | 1,729,600 | 298,275 | 339,500 |
| Office Rent | 2,987,77 |  |  |  |  |  |  |  |  |  |  |  | 2,987,77 |  |  |  |  |
| Office Costs | 3,583,328 | 76,276 | 28,550 | 32,834 | 41,500 | 152,386 | 42,911 | 50,267 | 29,736 | 41,025 | 20,158 | 356,914 | 444,262 | 71,152 | 2,143,420 | 14,099 | 37,838 |
| Professional Services | 2,611,280 |  |  |  |  |  |  |  |  |  |  | 350,000 | 1,885,000 | 700,000 |  | 80,280 | 296,000 |
| Miscellaneous | 36,500 | 500 | 250 | 250 | 500 | 500 |  | 500 | 500 | 500 | 500 | 500 | 5,500 | 500 | 500 | 25,000 | 500 |
| Depreciation | 2,333,006 |  |  |  |  | 228,000 |  |  | 193,667 | 161,998 |  |  | 419,399 |  | 1,330,443 |  |  |
| Total Operating Expenses | 25,863,357 | 76,776 | 28,800 | 421,084 | 42,000 | 1,336,336 | 435,635 | 410,173 | 223,903 | 1,280,343 | 447,458 | 9,036,804 | 5,05,938 | 711,652 | 5,203,963 | 417,654 | 673,838 |
| Total Direct Expenses | 65,23,815 | 4,800,751 | 2,353,718 | 3,016,607 | 2,456,441 | 5,456,456 | 847,881 | 1,324,038 | 2,303,098 | 2,446,801 | 2,612,056 | 11,466,588 | 8,918,288 | 4,448,015 | 8,526,886 | 1,158,304 | 3,096,886 |
| Indirect Expenses | (0) | 5,139,603 | 2,369,694 | 2,567,695 | 3,161,698 | 4,199,598 | 591,897 | 1,086,900 | 1,975,798 | 1,284,901 | 1,777,797 | 2,173,799 | (9,049,288) | (4,448,015) | (8,526,886) | (1,158,304) | $(3,096,886)$ |
| Other Non-Operating Expenses | 131,000 | . | . | . | . | . | . | . | . | . | . | . | 131,000 |  |  |  |  |
| Total Expenses (B) | 65,36,815 | 9,940,354 | 4,723,412 | 5,584,302 | 5,618,139 | 9,606,054 | 1,439,778 | 2,410,938 | 4,278,897 | 3,731,701 | 4,389,853 | 13,640,387 | . | - | . | - |  |
| Change in Assets | 2,007,449 | 306,991 | 141,451 | 153,270 | 188,727 | 219,696 | (369,711) | 64,879 | (75,728) | $(8,800)$ | 106,120 | 729,758 | 626,997 |  |  |  |  |
| Fixeed Assets |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Depreciation | (2,333,006) | . | . | - | - | (228,000) | - | - | (193,667) | (161,498) | - | . | (419,399) | - | (1,33,443) | - |  |
| Computer \& Software Capex | 3,253,500 |  |  |  |  | 200,000 |  |  |  |  |  | 100,000 |  |  | 2,953,500 |  |  |
| Furniture \& Fixtures Capex |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Equipment CapEx Leasehold Improvements | 365,000 |  |  |  |  |  |  |  |  |  |  |  |  |  | 365,000 |  |  |
| Allocation of fixed Assets | - | 306,791 | 141,451 | 153,270 | 188,727 | 247,696 | 35,331 | 64,879 | 117,939 | 76,698 | 106,120 | 129,758 | 419,399 |  | (1,98,057) |  |  |
| $\operatorname{lnc}($ Dec ) in fixed Assets ( $C$ ) | 1,285,994 | 306,791 | 141,451 | 153,270 | 188,727 | 219,696 | 35,331 | 64,879 | (75,728) | (84,800) | 106,120 | 229,758 | . | . | . | . |  |
| total budget ( $=$ + + ) | 6,649,309 | 10,247,145 | 4,864,863 | 5,737,572 | 5,806,866 | 9,825,750 | 1,475,109 | 2,475,817 | 4,203,169 | 3,646,902 | 4,995,972 | 13,870,144 | . | . | . |  |  |
| total change in working capital =A-b-C) | 721,955 | . | (0) | (0) |  | 0 | $(405,042)$ | 0 | . |  | 0 | 500,000 | 626,997 |  | . |  |  |
| fres | 192.30 | 24.40 | 11.25 | 12.19 | 15.01 | 19.70 | 2.81 | 5.16 | 9.38 | 6.10 | 8.44 | 10.32 | 13.13 | 15.01 | 19.70 | 2.81 | 16.89 |

## Exhibit A - Common Assumptions

## Shared Business Plan and Budget Assumptions - NERC and the Regional Entities 2014-2017 Planning Period (2015 Budget Cycle)

Throughout 2013 and early 2014, NERC and the eight Regional Entities worked to develop a common operating model with defined roles and responsibilities ${ }^{28}$ that align with business planning goals, objectives, metrics, and assumptions for the ERO Enterprise for the 2014-2017 planning period (and specifically for the 2015 budget cycle). At its February 2014 meeting, the NERC Board of Trustees approved an updated version of the ERO Enterprise Strategic Plan with newly aligned goals, objectives, and deliverables for the 2014-2017 planning period. The ERO Enterprise's annual strategic planning and performance monitoring processes will remain transparent with results reported on a quarterly basis to NERC's corporate governance and human resources committee and Board in support of the ERO corporate oversight function.

As part of the updated strategic plan, NERC and the Regional Entities consolidated five goals within the existing focus areas of standards; compliance, registration and certification; risks to reliability; and coordination and collaboration, and identified a number of associated objectives and deliverables expected of the ERO Enterprise. New in 2014, NERC and the Regional Entities added four overarching performance metrics to assess the overall effectiveness of the ERO Enterprise in addressing risk to the BES and improving BES reliability. These metrics concentrate on measuring progress in achieving reliability results, assuring standards and compliance effectiveness, and improving risk mitigation and program execution. The following set of common assumptions has been developed to guide ERO Enterprise resource projections ${ }^{29}$ for the 2014-2017 business planning and budget period (and specifically for the 2015 budget cycle) in support of achievement of the goals and objectives set forth in the Strategic Plan.

Similar to prior planning cycles, the specific resource needs and budgets of NERC and the Regional Entities will be publicly posted and made available on NERC's website for review and will be approved in open session by NERC's Finance and Audit Committee as part of the annual business plan and budget processes. This is in addition to the process that the Regional Entities use to obtain their board and stakeholder review of their business plans and budgets. NERC's review of the Regional Entity business plans and budgets will be primarily focused on ensuring alignment of activities with the Strategic Plan and that resources are adequate to support performance of delegated functions and key initiatives. A 2015 Business Plan and Budget schedule has been developed to identify important meeting dates, review periods, posting dates, etc. associated with the development and completion of the NERC and Regional Entity plans.

These assumptions will continue to be refined based on comments received from stakeholders and the ongoing work conducted by NERC and Regional Entity leadership regarding specific goals, objectives and supporting activities over the planning period.

## Legal and Operating Framework

NERC and the Regional Entities will continue to work under the existing regulatory framework governing the establishment and enforcement of Reliability Standards for the BPS established by applicable governmental authorities in the United States, Canada and portions of Mexico, as well as the authorizations contained in the FERC's order approving NERC as the ERO. Because the Regional Delegation Agreements (RDAs) expire on January

[^22]1, 2016, NERC and the Regional Entities will work collaboratively to identify any necessary revisions to the RDAs as renewal efforts begin in 2014.

NERC will provide oversight of the Regional Entities' performance of their delegated functions to ensure that delegated responsibilities are adequately performed. NERC expects that the Regional Entities will continue to have the primary responsibility for day-to-day operations and interactions with registered entities. NERC and the Regional Entities will also continue to work collaboratively to refine and revise procedures to eliminate duplication, increase operational efficiencies, enhance ERO-wide consistency, and achieve measureable reliability outcomes, consistent with their respective roles and responsibilities.

## Stakeholder Participation

NERC and the Regional Entities develop their business plans, budgets, and resource requirements based upon the assumption of continued stakeholder participation in support of key program areas initiatives, while recognizing that stakeholder resource limitations may affect specific levels of participation in any given activity. The availability and adequacy of industry resource support will be evaluated on an ongoing basis.

## External Factors

Factors external to the ERO Enterprise have the potential to influence project prioritization, resource needs, and allocation. These factors include but are not limited to the following:

- FERC, or other governmental authority orders, directives, audits, and performance assessments
- The implementation and deployment of the BES definition, as well as the volume and complexity of exception, self-determined notifications, and registration requests
- The rate and severity of entity violations
- The rate and severity of system events requiring formal investigations beyond historic volumes and their causal factors
- New technologies and changing resource or demand composition that require additional reliability studies and reliability risk analysis
- Changes in applicable laws and regulations, including environmental laws and others
- Priority risk initiatives identified by the Reliability Issues Steering Committee, Board committees, and through other stakeholder input
- The pace at which Reliability Standards are revised to achieve sustainable high-quality and content scores ${ }^{30}$
- The ability of stakeholders to support the pace and scope of the various initiatives while implementing the results of earlier efforts


## Collaboration with the Trade Associations and Forums

The activities of the North American Transmission Forum (NATF), North American Generator Forum (NAGF), and other trade forums and associations are expected to complement ERO Enterprise activities and limit the need to add incremental resources to the NERC and Regional Entity business plans and budgets that might otherwise be required in the absence of these forums. In 2013, NERC entered into a memorandum of understanding with the NATF to help ensure that the common objectives of each organization are achieved in the most efficient and effective manner. There is mutual agreement, with no commitment of funds, to coordinate information sharing,

[^23]engage in the development and maintenance of mutual reliability initiatives, and provide periodic reports to pertinent audiences. A similar agreement is under development with the NAGF in 2014.

Collaboration between the NATF and NERC is expected to continue into 2015 so that NATF members can more fully support NERC efforts on projects such as: protection systems misoperations reduction, physical security, various activities related to reliability assurance initiatives, improvement of modeling practices, and complementary efforts on addressing the geomagnetic disturbance challenges.

## Key Assumptions by Program Area ${ }^{31}$

## Reliability Standards Program

1. There will be continued focus on improving quality and content of Reliability Standards. This will require the allocation of resources from several internal NERC departments and support from across the enterprise.
a. The implementation of a cost-effectiveness assessment of proposed standards and the involvement in various other reform activities will likely require resource support from other program areas. Resource requirements and impacts are not fully known at this time.
2. The focus on improving the quality and content of standards will likely increase the demand on NERC, the Regional Entities and stakeholders to review and comment on proposed revisions to standards, support regulatory filings, and support successful implementation of new standards as they become effective.
3. The number of projects contained in the Reliability Standards Development Plan will likely increase, depending upon the number of standards that require reviews and modifications to improve the quality and content.
a. The scope of these projects, however, is expected to narrow as regulatory obligations in the form of directives and five-year reviews, Paragraph 81, and IERP recommendations are progressively addressed.
4. NERC and the Regional Entities must plan to develop or modify the Reliability Standards Audit Worksheets (RSAWs) required to support the Reliability Standards Development Plan. Sufficient resources must be allocated to do so in accordance with the new RSAW development process, which aims to produce RSAWs (or modifications to RSAWs) by the time a standard is balloted.
5. The number of interpretation and guidance requests is expected to remain low, based on the transformation to a steady state and the implementation of RAI.
6. Activity associated with regional standards development is expected to remain low.

## Compliance Monitoring and Enforcement, and Organization Registration and Certification Programs

## Compliance and Enforcement

1. The implementation of the Reliability Assurance Initiative (RAI) and expansion of the Find-Fix-Track process will require the allocation of dedicated resources from both NERC and the Regional Entities to

[^24]complete the design and to begin developing the processes necessary to implement RAI for both compliance and enforcement.
a. Regional Entities should anticipate at least the same level of participation in RAI as in 2013 and possibly slightly more if the transition to certain RAI elements is able to begin earlier in 2015.
2. NERC and the Regional Entities are expected to utilize consistent audit practices and focus on higher reliability risks to increase efficiency and mitigate overall compliance costs for registered entities.
3. The Compliance Auditor Capabilities and Competency Guide is expected to be adopted in 2015. The Regional Entities will need to assess their existing resources, including potentially adjusting skill sets to meet these requirements. This may require additional resources or a reallocation of resources to attain and maintain these competencies as noted below.
4. NERC and the Regional Entities must plan to support the training requirements necessary to meet the criteria set forth by the ERO Auditor Manual and Handbook and the Compliance Auditor Capabilities and Competency Guide. Regional Entities will be expected to demonstrate the following:
a. RSAWs, bulletins, compliance analysis reports (CARs), training documents, and other related compliance guidance are provided to compliance personnel and other staff, as necessary.
b. Compliance Auditor job descriptions are reviewed and properly reflect the guidance provided in the Compliance Auditor Capabilities and Competency Guide.
c. A gap analysis has been performed to specifically identify both individual training needs and organizational compliance resource needs to assure properly staffed engagements with individuals who are capable of performing work associated with identified engagement scope (e.g., appropriate individual and team knowledge, education, and collective skills).
d. A process is in place for personnel to acknowledge their commitment to Professional Standards, Ethical Principles, and Rules of Conduct.
e. An assessment process is in place to evaluate audit team competencies and capability needs.
f. A training program is in place that addresses initial and continuing training for capability and competency development. Regional Entities will continue to budget to meet the strategic objective of acquiring, engaging, and retaining highly qualified talent.
5. The implementation will continue for Technical Feasibility Exception (TFE) processing per the revised Appendix 4D, NERC Rules of Procedure, which is expected to drive a less onerous process for TFE reporting and reviewing.
6. An assessment project will be completed in 2014 that evaluates systems used for compliance, registration, analysis, and tracking. The project will result in changes to or the replacement of existing systems. NERC and the Regional Entities should maintain current multiyear contractor and consultant services to support the continued maintenance and administration activities associated with existing systems.
7. Risk-based monitoring activities are expected to increase.
8. The use of spot checks and self-certifications is expected to increase as risk-based monitoring is implemented, but the increase should have little effect on overall resource requirements.
9. Non-CIP violations are expected to continue to decrease, as most registered entities have been audited and the standards and RSAWs have matured.
10. CIP compliance personnel will need to support the conversion from V3 to V 5 and provide support to entities undergoing a CIP audit until stability in the standards is reached.
a. NERC will lead the CIP Version 5 training development, coordination, and facilitation for the ERO CIP Auditors and Industry Outreach. ERO CIP Auditors will support these initiatives in collaboration with NERC, as needed, to ensure appropriate knowledge and guidance are developed, understood, and administered.
b. Regional Entities must plan to support the ongoing CIP Version 5 transition plans and should anticipate an expansion in the number of registered entities that require guidance during 2015.
c. Additional training requirements will be necessary to support the transition and will affect the annual training commitments.

An impact study is being performed to determine staffing impacts associated with the transition from Version 3 to Version 5.

## Organization Registration and Certification

1. A risk-based registration assessment project will occur in 2014 with the expectation that an implementation plan and possibly early deployments of revisions to the registration process will take place in 2015.
2. The implementation of the BES definition may place additional resource demands on the registration area.
a. These demands cannot be fully assessed at this time. If a high number of BES exceptions is requested, a backlog situation in the first two or three years of implementation is possible.

## Reliability Assessment and Performance Analysis Program (RAPA)

1. The implementation of the BES exception process will require the reallocation of resources from several NERC and Regional Entity departments.
a. Resources are expected to manage the process execution, technical validation of the definition and exception requests, self-determined notification submittals, and requests for registration and certification reviews.
b. The resource impacts are not fully known at this time but are expected to be driven by the number and complexity of exception requests, self-determined notification submittals, and registration requests received.
2. Invested and dedicated RAPA resources will also be required throughout the enterprise to jointly:
a. Develop and implement improved enterprise-based data collection and analysis systems and capabilities.
b. Support the integration of RAPA information systems for modeling and data requirements and achieve timelines for delivering high-quality reports (e.g., Long-Term Reliability Assessment and State of Reliability report).
c. Develop, verify, and validate quality reliability assessment and analyses model and data quality characteristics.
d. Address impacts of new technologies, changing resource, or demand resource composition, and environmental-related regulations or legislation.
e. Support the compilation of long-term sustainable Eastern Interconnection models.
f. Provide technical resources and expertise to perform analyses as needed for standards development, compliance, and enforcement activities.
g. Support quality analysis and overall assessment of the geomagnetic disturbance (GMD) vulnerability, planning guides, and planning standards.
3. The implementation of the Reliability Risk Management projects, identified in the ERO Performance Metric \#3, will require varied resource commitments during the planning period (2014-2017) to ensure measurable improvements in reliability outcomes.
a. The extent of the actual resource commitment cannot be determined at this time.
4. Contractor and consultant services may be necessary to maintain continued support and technical expertise associated with activities listed in the above assumptions and with supporting various research efforts such as Vegetation Management, GMD, etc.
a. To the extent that significant events occur, contractor services may be required to support widearea system analyses and root cause evaluations.

## Training, Education, and Operator Certification Program

1. NERC will continue to budget and incur the cost of a unified learning management system (LMS) for the regional audit staff and work with the Regional Entities to consolidate training resources and promote better coordination, planning, delivery, and management of training efforts across the enterprise without adversely impacting Region-specific training requirements.
2. The time pressures associated with implementing auditor training and increasing competencies are expected to drive the allocation of training resources throughout the enterprise.
a. NERC will continue development of training modules with the assistance of qualified auditors from the Regional Entities.
3. Additional resources will be required, and increases to NERC and Regional Entity training budgets are expected to support certain training initiatives of RAI.
a. Regional Entities are also expected to allocate resources to meet the training requirements for the compliance and enforcement staff that are associated with the implementation of RAI.
4. The Regional Entities are expected to help determine training needs, including flexibility in approach between Regional Entities, and to anticipate areas of support for standards, compliance monitoring, and enforcement and IT for their staffs and stakeholders.
5. The Operating Personnel Certification program is expected to remain at a steady state with no additional resources required from the Regional Entities.
6. Contractor and consultant services may be necessary to maintain the continued support and technical expertise associated with some enterprise training activities.

## Situation Awareness and Event Analysis Program

1. NERC will continue to budget and manage Event Analysis with Situation Awareness separate from the Compliance and Enforcement functions.
2. NERC will continue to budget and incur costs to operate and maintain the software applications and systems known as Situation Awareness for NERC, FERC, and the Regions (SAFNR).
a. Additional resource investments may be required to enhance the capabilities of SAFNR throughout the planning period, but with no increased cost to the Regional Entities.
3. As the depth of focused analysis improves, any identification of possible gaps in standards and compliance monitoring could potentially influence those program areas.
4. Regional Entities will continue to budget for Event Analysis and Situational Awareness, as in the past. Some Regional Entities will continue to allocate resources as part of the activities accounted for under their RAPA programs.

## Critical Infrastructure Department (CID)

1. NERC will continue to fund and conduct the Grid Security Exercise (GridEx) program, with no increased cost to the Regional Entities. Planning activities will occur during even-numbered years, and execution of the exercise will take place in odd-numbered years.
2. NERC will continue to fund and conduct the Grid Security Conference as an annual event. Other than funding registration fees for individual attendees from their Regional Entities, no Regional Entity funding is anticipated.
3. NERC will continue to provide support for CIP compliance and security awareness and will continue to use available regional subject matter experts in providing this support.

## ES-ISAC

1. NERC will continue to fund, operate, and maintain the Electricity Sector Information Sharing and Analysis Center (ES-ISAC) with no increased cost to the Regional Entities.

## Information Technology and Project Management Office (PMO)

1. NERC and the Regional Entities will collaboratively work to refine existing strategies, governance, and procurement practices applicable to the development, operation, and maintenance of enterprise architecture, software, and data systems supporting both NERC and Regional Entity operations.
2. NERC's business plan and budget will include ongoing funding for the development, operation, and maintenance of NERC- and Regional Entity-approved enterprise applications. Enterprise application funding in any given year will be subject to the budget and funding limits set forth in NERC's approved business plan and budget. Regional Entities should include appropriate funding for applications and supporting systems designed to satisfy regional business needs that are not within the mutually agreedupon scope of the ERO Enterprise applications that are funded by NERC.
3. Regional Entities may be required to allocate or augment business teams to help develop application business requirements and to test business functionality within the enterprise applications.
4. Ongoing investments will be required to develop, implement, and maintain enhancements to the NERC and Regional Entity websites required to improve access to information. NERC and the Regional Entities will separately fund any enhancements to their own websites.
5. NERC anticipates that its management of NERCnet will be transferred to the Eastern Interconnect Data Sharing Network (EIDSN) during 2014. Entities currently using NERCnet may see an increase or decrease in their costs going forward depending upon EISDN costs and billing arrangements. Users should consult EIDSN for further information.
6. NERC may consider transitioning other tools to third-party ownership, operation, and maintenance. NERC has not made a determination regarding which, if any, tools are likely to be transitioned or the timing of such transition. Any such transition will be accomplished in a collaborative manner with affected users, including advance notice and efforts to mitigate financial and operational impacts.

## ERO Enterprise-wide Risk Management

1. A common ERO Enterprise risk management framework will be developed and implemented that focuses on identifying, assessing, prioritizing, and mitigating risks associated with the performance of both NERC and the Regional Entities. This will be a multiyear initiative.
2. NERC's director of risk management and internal controls will be responsible for the overall development of this framework under NERC's Enterprise-wide Risk Management Committee.
3. The development and implementation of this framework will require Regional Entity cooperation and support. Any decision to add risk management and internal control resources at the Regional Entity level is reserved for Regional Entity decision-making processes.

# Exhibit B - Application of NERC Section 215 Criteria 

# DISCUSSION OF HOW THE NERC MAJOR ACTIVITIES <br> IN THE 2015 BUSINESS PLAN AND BUDGET MEET THE NERC WRITTEN CRITERIA FOR DETERMINING WHETHER A RELIABILITY ACTIVITY IS ELIGIBLE TO BE FUNDED UNDER FEDERAL POWER ACT SECTION 215 

## I. Introduction

This Exhibit discusses how the major activities in NERC's 2015 Business Plan and Budget meet the NERC written criteria for determining whether a reliability activity is eligible to be funded under $\$ 215$ of the Federal Power Act (FPA §215). This Exhibit is intended to satisfy Recommendation No. 38 resulting from the financial performance of NERC conducted by the Commission's Division of Audits "DA" in 2012-2013 and adopted by the Commission in its November 2, 2012, order on NERC's 2013 Business Plan and Budget. ${ }^{32}$ NERC submitted the written criteria to the Commission in a compliance filing dated February 21, 2013, in Docket No. FA11-21-000. ${ }^{33}$ The Commission approved the NERC written criteria, with modifications, in an order issued in that docket on April 18, 2013. ${ }^{34}$ The NERC written criteria as used in this Exhibit incorporate the modifications specified in the Compliance Order. ${ }^{35}$

## II. Reliability Standards Program 2015 Major Activities

The major activities of the Reliability Standards Program are described on pages 1-4 of the 2015 Business Plan and Budget. The Reliability Standards Program carries out the ERO's responsibility to develop, adopt, obtain approval of, and modify as and when appropriate, mandatory Reliability Standards for the reliable planning, operation, and critical infrastructure protection of the North American BES. The major activity areas for this program include (1) providing project management and leadership to the Reliability Standard development process to deliver highquality, continent-wide Reliability Standards, including standard development outreach activities, facilitation of Standard Drafting Team activities, drafting support, assisting Standard Drafting Teams in adhering to the processes in the Standard Processes Manual, and ensuring that the quality of documents produced are appropriate for approval by industry and the NERC Board; (2) facilitating continent-wide industry engagement in the standard development processes; and (3) conducting industry balloting on standards, disseminating information on standards and the standard development processes, and supporting regulatory filings and proceedings relating to standards. Additionally, the Reliability Standards Program provides technical advice and quality review for Regional Entity Standards development processes, presents proposed regional standards to the NERC Board, and develops and supports regulatory filings for approval of regional standards. The Reliability Standards Program

[^25]supports the Cost-Effective Analysis Process to ensure that the standards development process produces standards that cost-effectively address reliability gaps.

The Reliability Standards Program is involved in and supports cross-departmental and collaborative projects, including the Risk-Based Registration project; the concurrent development of RSAWs with the associated Reliability Standards; conducting, in conjunction with other departments, technical analysis needed as a foundation for standards projects; and submitting newly identified reliability risks to the Reliability Issues Steering Committee (RISC) for verification prior to initiation of a standards project.

For 2015, the major activities of the Reliability Standards Program will seek to ensure that the Reliability Standards Development Plan is effectively executed and that the Reliability Standards developed will appropriately mitigate risks to reliability. The major activities will include: (1) supporting the Reliability Risk Management Process, including focusing on the selection of standards projects undertaken; (2) addressing FERC directives and responding to FERC orders through standards development projects as necessary; (3) transforming NERC's standards to steady state, including addressing possible outstanding Paragraph 81 Phase 2 requirements candidates for retirement and Independent Expert Review Panel candidates for retirement; (4) improving the quality and content of standards to determine the specific criteria for determining whether a Reliability Standard is of sufficient content and quality to be deemed steady state; and (5) facilitating smooth transitions to new standards such as CIP Version 5 and the Physical Security standard by working with other departments to develop guidelines, webinars, and other activities to support auditor and industry training on the new standards.

The major activities of the Reliability Standards Program satisfy the following criteria:
I.A: Is the activity necessary or appropriate for Reliability Standards development projects pursuant to the NERC Rules of Procedure (ROP)?
I.B: Is the activity necessary or appropriate for providing guidance and assistance to Regional Entities in carrying out Regional Reliability Standards development activities?
I.C: Is the activity necessary or appropriate for information gathering, collection, and analysis activities to obtain information for Reliability Standards development, including for purposes of identifying areas in which new Reliability Standards could be developed, existing Reliability Standards could be revised, or existing Reliability Standards could be eliminated?
I.D: Is the activity necessary or appropriate for the provision of training and education concerning Reliability Standards development processes, procedures, and topics for/to (i) NERC personnel, (ii) Regional Entity personnel, (iii) industry personnel?
II.A: Is the activity necessary or appropriate for the identification and registration of users, owners, and operators of the Bulk Power System that are required to comply with the Requirements of Reliability Standard applicable to the reliability functions for which they are registered?
II.F.1: Is the activity necessary or appropriate for the provision of training, education, and dissemination of information for/to (i) NERC personnel, (ii) Regional Entity personnel, and (ii) industry personnel with respect to compliance monitoring and enforcement topics and topics concerning reliability risks identified through compliance monitoring and enforcement activities, such as (1) Requirements of Reliability Standards, including how to comply and how to demonstrate compliance? This includes development of guidance and interpretation documents.

V: Is the activity one that is required or specified by, or carries out, the provisions of NERC's Rules of Procedure that have been approved by the Commission as "Electric Reliability Organization Rules" (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable Rules of Procedure provisions for these major activities are $\S 300$ and Appendix 3A.)

VI: Is the activity necessary or appropriate for the supervision and oversight of Regional Entities in the performance of their delegated responsibilities in accordance with FPA §215, 18 C.F.R. Part 39, the Commission-approved delegation agreement between NERC and the Regional Entity, the NERC ROP, and applicable provisions of Commission orders?
IX. Is the activity necessary or appropriate for NERC and Regional Entity committees, subcommitteesand working groups engaged in activities encompassed by one or more of the other criteria?
X. Is the activity necessary or appropriate for the analysis and evaluation of activities encompassed by one or more of the other criteria for the purpose of identifying means of performing the activities more effectively and efficiently?

## III. Compliance Monitoring and Enforcement and Organization Registration and Certification Program Area 2015 Major Activities

The major activities of the Compliance Monitoring and Enforcement and Organization Registration and Certification Program Area are described on pages 8-10, 13-15, and 19-23 of the 2015 Business Plan and Budget. This Program Area is comprised of three operational groups: (1) Regional Entity Assurance and Oversight, (2) Compliance Analysis, Certification and Registration, and (3) Compliance Enforcement.

The Regional Entity Assurance and Oversight group works collaboratively with the Regional Entities to ensure consistent and effective implementation of the Compliance Monitoring and Enforcement Program (CMEP) across the entire ERO Enterprise. This group's activities include the following major activities and functions: (1) ensuring consistent and fair implementation of the CMEP and of the risk-based compliance monitoring program for reliability improvements, including developing and maintaining the necessary compliance-related processes, procedures, IT platforms, tools, and templates; (2) oversight of the Regional Entities' delegated compliance functions, including consistent and uniform CMEP planning, implementation, and reporting, compliance operations and coordination, and auditor training; (3) CIP Version 5 activities related to transition, training, and compliance design of ERO education programs that support industry compliance and the integration of risk assessment and internal controls; (4) development of minimum baseline monitoring requirements; (5) development and maintenance of RSAWs; (6) support for Regional Entity and industry committees, working groups, and task forces, such as the Compliance and Certification Committee; and (7) supporting standards development and education. Regional Entity Assurance and Oversight provides information, statistics, and perspectives to Standard Drafting Teams and collaborates in the development of draft RSAWs during the standard development process. This program also supports and promotes the development by registered entities of effective compliance programs and internal controls.

The Regional Entity Assurance and Oversight group participates in and supports the implementation of RAI, including development of a single ERO methodology for registered entity risk assessments and evaluation and testing of registered entity internal controls; implementation of an auditor manual with an approved auditor handbook and checklist; and process improvements associated with coordination of compliance and enforcement activities for multi-region registered entities.

The ongoing and new major activities of the Regional Entity Assurance and Oversight group for 2015 include: developing a training program to support implementation of the common audit procedures and the ERO Auditor Capabilities and Competencies Guide; replacing/enhancing NERC's existing Compliance, Reporting, Analysis Tracking System (CRATS) and other compliance tools to support RAI activities; making effective internal controls models and information available to industry; initiating compliance phase-in learning periods for new standards; transitioning to a single ERO approach to compliance monitoring and common audit planning, and implementing RAI techniques and principles consistently; consolidating to a common set of RSAWs, or successors, for all standards; enhancing the design of regional compliance audits to evaluate regional staffing, deployment of tools, and testing of compliance activities; increasing the frequency of audits to validate the implementation of RAI program designs; and creating technically sound training to support compliance methodologies and testing approaches for Reliability Standards.

The Compliance Analysis, Registration and Certification Group is responsible for a range of requirements and activities embodied in Section 500 and Appendices 5A and 5B of the NERC ROP, including ensuring all entities impacting the BES are registered; ensuring Reliability Coordinators (RC), Balancing Authorities (BA) and Transmission Operators (TOP) are certified; supporting standards development and compliance monitoring; ensuring that industry maintains effective internal controls programs for reliability assurance risk; and ensuring that program gaps are assessed in all reportable events and addressed if appropriate. Major activities of this group include (1) registration of BES users, owners, and operators; (2) certification of RC, BA and TOP; (3) compliance investigations to identify possible violations of Reliability Standards; (4) processing complaints alleging violations of Reliability Standards; (5) technical assurance, including developing quarterly gap and risk assessment reports and recommended responses, and conducting inquiries and spot checks based on quarterly gap analysis; and (6) oversight of Regional Entity registration, certification, investigation, and complaint programs.

The Compliance Analysis, Registration and Certification Group is principally involved in the design and implementation of the Risk-Based Registration initiative, including the related registration criteria to identify users, owners, and operators of the BES that have a material impact on reliability and to ensure that the right entities are subject to the right set of applicable Reliability Standards, based on a consistent and common approach to risk assessment and registration across the ERO Enterprise.

The ongoing and new major activities of the Compliance Analysis, Registration and Certification Group for 2015 include: deploying a sustainable Risk-Based Registration design that incorporates evaluation of the reliability risks and benefits provided by an entity to ensure reliability; identifying a corresponding properly scoped set of Reliability Standard requirements; developing an implementation plan with business practices and IT requirements that addresses unintended industry burden, while preserving an adequate level of reliability; aligning changes to the registration criteria with other NERC activities; assessing the current certification program for opportunities to mature the program; incorporating changes in registration from the enhanced BES definition; providing support for the continued development of RSAWs; aiding in the BES definition exception submittal process; aiding in the review of registrations appeals and enforcement mitigation; assisting with training modules for investigations, certifications, and registrations; and providing analysis in support of projects addressing top reliability risks.

The Compliance Enforcement department is responsible for overseeing enforcement processes, the application of penalties or sanctions, and activities to mitigate and prevent recurrence of noncompliance with Reliability Standards. The department works collaboratively with the Regional Entities to ensure consistent and effective implementation of the CMEP. Compliance monitors Regional Entities' enforcement processes and provides oversight over the outcomes of such processes to ensure due process, identify best practices and process efficiency opportunities, and promote consistency among Regional Entities' business practices. The department collects and analyzes compliance enforcement data and trends to assist with identification of emerging risks and help to inform development of enforcement policy and processes; it files notices of penalty and other submittals
associated with noncompliance discovered through Regional Entity compliance, monitoring, and enforcement activities; it processes and files notices of penalty and other submittals discovered through NERC-led investigations and audits; and it collaborates with other NERC departments, including Reliability Standards and Regional Entity Oversight and Assurance.

The Compliance Enforcement department works with the Regional Entities to reduce the number of violations in inventory, particularly those older than 24 months; ongoing identification and implementation of enforcement process improvements, including FFT and self-reporting; promoting self-identification, prompt mitigation of noncompliance, and timely completion of mitigating activities (including through development of the ERO Enterprise Self-Report User Guide and the ERO Enterprise Mitigation Plan Guide); and other RAI activities.

New and ongoing major activities of this department in 2015 will include continuing to identify processing efficiencies and enhancements to enforcement activities; consolidating new enforcement processes, including enhancements to the FFT program, self-reporting, and RAI activities and related process improvements; ensuring timely processing of violations, particularly those that pose greater risk and can provide lessons learned to industry; and ensuring early dissemination of violation information to registered entities to enable them to learn from prior events and violations and take preventative actions to eliminate similar risks.

The major activities of the Compliance Monitoring and Enforcement and Organization Registration and Certification Program Area satisfy the following criteria:
I.A: Is the activity necessary or appropriate for Reliability Standards development projects pursuant to the NERC Rules of Procedure?
I.C: Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information for Reliability Standards development, including for purposes of identifying areas in which new Reliability Standards could be developed, existing Reliability Standards could be revised, or existing Reliability Standards could be eliminated?
II.A: Is the activity necessary or appropriate for the identification and registration of users, owners, and operators of the Bulk Power System that are required to comply with Requirements of Reliability Standards applicable to the reliability functions for which they are registered?
II.B: Is the activity necessary or appropriate for the Certification of Reliability Coordinators, Transmission Operators and Balancing Authorities as having the requisite personnel, qualifications and facilities and equipment needed to perform these reliability functions in accordance with the applicable Requirements of Reliability Standards?
II.D: Is the activity necessary or appropriate for conducting, participating in, or overseeing compliance monitoring and enforcement activities pursuant to the NERC ROP and (through the Regional Entities) the Commission-approved delegation agreements?
II.E: Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information to monitor and enforce compliance with Reliability Standards, including evaluating the effectiveness of current compliance monitoring and enforcement processes, the need for new or revised compliance monitoring and enforcement processes, and the need for new or different means of training and education on compliance with Reliability Standards.
II.F: Is the activity necessary or appropriate for the provision of training, education and dissemination of information for/to (i) NERC personnel, (ii) Regional Entity personnel, and (iii) industry personnel with
respect to compliance monitoring and enforcement topics and topics concerning reliability risks identified through compliance monitoring and enforcement activities, such as: (1) Requirements of Reliability Standards, including how to comply and how to demonstrate compliance? This includes development of guidance and interpretation documents. (2) Compliance monitoring and enforcement processes, including how to conduct them, how to participate in them, and the expectations for the process? This includes development of guidance documents. (3) Disseminating, through workshops, webinars, Advisories/Recommendations/Essential Actions, and other publications, "lessons learned" information on compliance concerns and reliability risks obtained through compliance monitoring and enforcement activities, monitoring and investigation of Bulk Power System major events, off-normal occurrences and near miss events, and other Bulk Power System monitoring activities? (4) Registered Entity internal processes for compliance with Reliability Standards, such as development, implementation and maintenance of internal reliability compliance programs?

V: Is the activity one that is required or specified by, or carries out, the provisions of NERC's Rules of Procedure that have been approved by the Commission as "Electric Reliability Organization Rules" (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable Rules of Procedure provisions for these major activities are $\S 400$ and 500 and Appendices $4 B, 4 C, 5 A, 5 B$ and $5 C$.)

VI: Is the activity necessary or appropriate for the supervision and oversight of Regional Entities in the performance of their delegated responsibilities in accordance with FPA §215, 18 C.F.R. Part 39, the Commission-approved delegation agreement between NERC and the Regional Entity, the NERC ROP, and applicable provisions of Commission orders?

IX: Is the activity necessary or appropriate for NERC and Regional Entity committees, subcommittees and working groups engaged in the activities encompassed by one or more of the other criteria?

X: Is the activity necessary or appropriate for the analysis and evaluation of activities encompassed by one or more of the other criteria for the purpose of identifying means of performing the activities more effectively and efficiently?

## IV. Reliability Assessment and Performance Analysis Program 2015 Major Activities

The major activities of the Reliability Assessment and Performance Analysis (RAPA) Program are described on pages 25-34 of the 2015 Business Plan and Budget. The RAPA Program carries out the ERO's responsibility to conduct assessments of the reliability and adequacy of the BES to provide insight and guidance about reliability risks and performance improvements. RAPA also identifies reliability performance issues and areas of concern (including equipment performance and reliability issues) for consideration in the development and modification of Reliability Standards or other initiatives to enhance reliability. The principal activity areas of the RAPA program include: independent assessments and reports on the overall reliability, adequacy, and associated reliability risks that could impact the upcoming summer and winter seasons and the long-term (e.g., 10-year) planning horizon; performance analysis and recommendations of historical reliability and associated trends, relying on data integrity and consistent methodology, leading to credible recommendations/guidance; reliability assessment and bulk system evaluation model development for analyzing steady-state and dynamic conditions; assurance that electrical elements necessary for the reliable operation of the BPS are appropriately identified as BES Elements; reliability risk program management for improving key risk areas using analyses of reliability gaps, risks, controls, and management efforts; determination of reliability risk program priorities to align with the strategic plan and business plan and budget for the appropriate level of resources, timing, completion, and execution; and providing leadership and consistent technically sound guidance and recommendations that position industry and policy makers to enhance reliability through effective outreach and communications.

The RAPA Program is engaged in reliability risk analysis and identification of top reliability risks and in supporting and implementing the Reliability Risk Management Process to identify, measure, prioritize, and develop strategies for managing and disseminating information on areas of reliability risk. Current programs focused on managing the top-priority reliability risks address the changing resource mix, resource planning, protection system reliability, uncoordinated protection systems, extreme physical events, availability of real-time tools and monitoring, protection system misoperations, and right-of-way clearances. RAPA works on a number of these programs in collaboration with other NERC departments and conducts analyses to understand the technical performance of the BES to guide recommendations and insights that enhance system performance and reliability. Additionally, RAPA continues to be heavily involved in the development and implementation of the revised BES definition and the BES Exception procedure (Appendix 5C of the NERC ROP), both of which became effective in mid-2014 and involve reviews, evaluations, and confirmations of proposed changes to BES elements by registered entities.

The ongoing and new major activities of the RAPA Program for 2015 include: issuing reliability reports, guidelines, recommendations and alerts as needed; preparing the long-term and seasonal reliability assessments; conducting special assessments addressing key reliability issues, including a report on Geomagnetic Disturbance BES effects and a vulnerability assessment; preparing an annual State of Reliability report; providing oversight of the Generating Availability System, Transmission Data Availability System and Demand Response Availability System, along with the Spare Equipment Database; strengthening data collection and validation processes by designing, creating, testing, and implementing data systems and management for reliability assessment and risk analysis; providing periodic updates on trends and measures of BES reliability; developing a risk registry and a systematic prioritization process with the RISC; executing integrated risk control strategies and plans across the organization to address the highest priority existing or emerging risks to BES reliability, and explicitly measure the results; supporting NERC Reliability Standard development and responses to FERC directives by providing technical and system analysis expertise; supporting the technical foundation development for Reliability Standards to address deficiencies or needs revealed by reliability assessments and performance analysis; providing support and leadership to the NERC Planning Committee, and to subcommittees, working groups and tasks forces of NERC standing committees; developing a structured approach to evaluate and improve system models, model validation, system analysis, and assessments; assisting in the development of approaches to registration and maintenance of the actively monitored standards list based on reliability trends, risks, and historical information to ensure that the compliance focus remains on the most critical entities and associated Reliability Standards; conducting major event investigations, analysis, and reporting of major findings and recommendations that will improve reliability; building and sustaining an enterprise reliability assessment and performance analysis team that encompasses risk-informed approaches and structured methodology to identify and address reliability risks; and implementing effective oversight and tracking of various technical aspects of reliability, including frequency response performance, application of the TPL footnote $b$ adoption, and root cause applications to assessment and analyses.

The RAPA Program's top reliability risk projects for 2015 are expected to include the following: Essential Reliability Services Special Assessment Phase II (scenario analyses of different levels of Essential Reliability Services; development of standardized power flow models and dynamic modeling components; support for IEEE 1574 relating to rules that establish frequency and voltage disturbance ride-through obligations for distributed energy resources; load composition modeling analysis; development of guidelines for operations and emergency coordination with gas suppliers and transporters; special assessment of potential impacts to BPS reliability of emerging and proposed environmental regulations; analysis of single-point-of-failure data reported in response to FERC Order No. 754; development of a best practices document for coordination of protection systems and other devices including under-frequency and under-voltage load-shedding devices, and associated modeling for assessing coordination; development and promotion of coordinated industry support programs such as the Spare Equipment Database Program, Spare Transformer Equipment Program, and Recovery Transformer Program; and development of good industry practices and guidelines to aid in proper application of protection systems.

The major activities of the RAPA Program satisfy the following criteria:
I.A: Is the activity necessary or appropriate for Reliability Standards development projects pursuant to the NERC Rules of Procedure?
I.C.1: Is the activity necessary or appropriate for information gathering, collection, and analysis activities to obtain information for Reliability Standards development, including for purposes of identifying areas in which new Reliability Standards could be developed, existing Reliability Standards could be revised, or existing Reliability Standards could be eliminated, such as: (1) measuring reliability performance-past, present, and future; publishing or disseminating the results of such measurements; analyzing the results of such measurements; identifying and analyzing risks to reliability of the Bulk Power System based on such measurements; and/or identifying approaches to mitigating or eliminating such risks?
III.A: Is the activity necessary or appropriate for the preparation or dissemination of long-term, seasonal, and special assessments of the reliability and adequacy of the Bulk Power System?
III.B: Is the activity necessary or appropriate for measuring reliability performance-past, present and future; publishing or disseminating the results of such measurements; analyzing the results of such measurements; identifying and analyzing risks to reliability of the Bulk Power System based on such measurements; and/or identifying approaches to mitigating or eliminating such risks?
III.F: Is the activity necessary or appropriate for the development and dissemination of Advisories/Recommendations/Essential Actions regarding lessons learned and potential reliability risks to users, owners, and operators of the Bulk Power System?

IV: Is the activity one that was required or directed by a Commission order issued pursuant to §215? (FERC orders directed NERC to develop and implement a revised definition of "Bulk Electric System" and a procedure for requesting and receiving exceptions from the BES definition, and subsequently approved NERC's proposed revised BES definition and its proposed BES exception procedure.)
V. Is the activity one that is required or specified by, or carries out, the provisions of NERC's Rules of Procedure that have been approved by the Commission as "Electric Reliability Organization Rules" (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable Rules of Procedure provisions for this major activity are §801-806 and 809-811.)

VI: Is the activity necessary or appropriate for the supervision and oversight of Regional Entities in the performance of their delegated responsibilities in accordance with FPA §215, 18 C.F.R. Part 39, the Commission-approved delegation agreement between NERC and the Regional Entity, the NERC ROP, and applicable provisions of Commission orders?

IX: Is the activity necessary or appropriate for NERC and Regional Entity committees, subcommittees and working groups engaged in activities encompassed by one or more of the other criteria?

X: Is the activity necessary or appropriate for the analysis and evaluation of activities encompassed by one or more of the other criteria for the purpose of identifying means of performing the activities more effectively and efficiently?

## V. Reliability Risk Management (Situation Awareness and Event Analysis) 2015 Major Activities

The major activities of the Reliability Risk Management (RRM) group, which is comprised of the Situation Awareness department and the Event Analysis department, are described on pages 38-40 and 43-45 of the 2015 Business Plan and Budget. The RRM group carries out the ERO's responsibility to perform assessments (including real-time and near-real-time assessments) of the reliability and adequacy of the BES. The four primary functions of the RRM group are BES awareness, event analysis and determination of root and contributing causes, assessment of human performance challenges that affect BES reliability and identification of improvement opportunities, and support of the NERC Operating Committee. These activities are carried out to identify potential issues of concern relating to system, equipment, entity, and human performance that may indicate a possible need to develop new or modified Reliability Standards.

The Situation Awareness department works with registered entities to monitor present conditions on the BES using various software tools and applications; communicates and coordinates with Regional Entities and registered entities to notify them of disturbances that could negatively impact the BES; and, in the event of significant BES disturbances, facilitates the coordination of communications between registered entities and applicable governmental authorities. The Situation Awareness department is involved in the operation and maintenance of the Situation Awareness for NERC, FERC, and Regions software application and the secure alert tool. The Situation Awareness department uses the following reliability-related tools to support its activities: Resource Adequacy (ACE Frequency) Tool, Inadvertent Interchange, Frequency Modeling and Analysis Tool, Intelligent Alarms Tool, Automated Reliability Reports, and Area Interchange Modeling Tool.

The ongoing and new major activities of the Situational Awareness department for 2015 include: ensuring that the ERO is aware of all BES events above a threshold of impact; ensuring the sharing of information and data to facilitate wide-area situational awareness; during crisis situations, facilitating the exchange of information among industry, Regions, and U.S. and Canadian governments; keeping the industry informed of emerging reliability threats and risks to the BES, including any expected actions; enhancing tracking of notification of expected actions in response to emerging actions to promote greater industry accountability; and issuing timely updates regarding progress toward resolving issues identified in Recommendations and Essential Actions.

The Event Analysis department performs assessments of the reliability and adequacy of the BES, including analyses to determine the causes of events, promptly assuring tracking of corrective actions to prevent recurrence, and providing lessons learned to the industry. Event Analysis assures that the industry is well informed of system events, emerging trends, risk analysis, lessons learned, and expected actions. Event Analysis also supports the development of Reliability Standards and monitoring and enforcing compliance with Reliability Standards. Additionally, Event Analysis identifies human error risks and precursor factors that allow human error to affect BES reliability and educates industry regarding such risks, precursors, and related mitigation methods. Event analysis also supports compliance and standards training initiatives and trending and analysis to identify emerging reliability risks to the BES.

The ongoing and new major activities for 2015 for the Event Analysis department include: (1) working with Regional Entities to obtain and review information from registered entities regarding qualifying events and disturbances in order to advance awareness of events above a threshold level; facilitating analysis of root and contributing causes, risks to reliability, wide-area assessments and remediation efforts; and disseminating information regarding events in a timely manner; (2) ensuring that all reportable events are analyzed for sequence of events, root cause, risk to reliability, and mitigation; (3) refining risk-based methodologies to support more effective and efficient identification of reliability risks, including use of more sophisticated cause codes for analysis; (4) ensuring consistency in reporting and analysis to support wide-area assessments of significant reliability trends and risks; (5) conducting the annual NERC Human Performance Conference and the NERC

Monitoring and Situation Awareness Conference; (6) conducting training (webinars, workshops and conference support) to inform industry and the ERO of lessons learned, root cause analysis, cause coding, human performance, and cold weather preparedness and recommendations; (7) developing reliability recommendations and alerts as needed; (8) tracking industry accountability for critical reliability recommendations; (9) ensuring that industry is well informed of system events, emerging trends, risk analysis, lessons learned, and expected actions; (10) conducting major event analysis and reporting of major findings and recommendations that will improve reliability; and (11) advancing the quality and usefulness of reliability assessments and event analysis data. The Event Analysis department will also support several top priority reliability risk projects being led by the RAPA program.

The major activities of the RRM group satisfy the following criteria:
I.C.2: Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information for Reliability Standards development, including for purposes of identifying areas in which new Reliability Standards could be developed, existing Reliability Standards could be revised, or existing Reliability Standards could be eliminated, such as: (2)monitoring, event analysis and investigations of Bulk Power System major events, off-normal occurrences and near-miss events?
II.E.2: Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information to monitor and enforce compliance with Reliability Standards, including evaluating the effectiveness of current compliance monitoring and enforcement processes, the need for new or revised compliance monitoring and enforcement processes, and the need for new or different means of training and education on compliance with Reliability Standards, such as: (2) monitoring, event analysis and investigation of Bulk Power System major events, off-normal occurrences, and near-miss events?
II.F.3: Is the activity necessary or appropriate for the provision of training, education, and dissemination of information for/to (i) NERC personnel, (ii) Regional Entity personnel, and (iii) industry personnel with respect to compliance monitoring and enforcement topics and topics concerning reliability risks identified through compliance monitoring and enforcement activities, such as: (3) disseminating, through workshops, webinars, Advisories/Recommendations/Essential Actions, and other publications, "lessons learned" information on compliance concerns and reliability risks obtained through compliance monitoring and enforcement activities, monitoring and investigation of Bulk Power System major events, off-normal occurrences and near-miss events, and other Bulk Power System monitoring activities?
II.G: Is the activity necessary or appropriate for the development and provision of tools and services that are useful for the provision of adequate reliability, because they relate specifically to compliance with existing Reliability Standards and they proactively help avert Reliability Standard violations and Bulk Power System disturbances?
III.C: Is the activity necessary or appropriate for investigating, analyzing, evaluating, and disseminating information concerning the causes of major events and off-normal occurrences, and/or providing coordination assistance, technical expertise, and other assistance to users, owners, and operators of the Bulk Power System in connection with Bulk Power System major events and off-normal occurrences, but not real-time operational control of the Bulk Power System?
III.D: Is the activity necessary or appropriate for awareness of circumstances on the Bulk Power System and to contribute to understanding risks to reliability?
III.F: Is the activity necessary or appropriate for the development and dissemination of

Advisories/Recommendations/Essential Actions regarding lessons learned and potential reliability risks to users, owners, and operators of the Bulk Power System?

V: Is the activity one that is required or specified by, or carries out, the provisions of NERC's Rules of Procedure that have been approved by the Commission as "Electric Reliability Organization Rules" (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable Rules of Procedure provisions for these major activities are $\S 807,808,810$ and 1001 and Appendix 8.)
IX. Is the activity necessary or appropriate for NERC and Regional Entity committees, subcommittees and working groups engaged in activities encompassed by one or more of the other criteria?

## VI. Critical Infrastructure Department 2015 Major Activities

The major activities of the Critical Infrastructure Department (CID) are described on pages 48-50 of the 2015 Business Plan and Budget. These activities include supporting the development and administration of the Critical Infrastructure Protection (CIP) standards, conducting security outreach visits, providing training and exercise opportunities on CIP topics, and coordinating between industry and governmental entities on CIP matters. CID conducts the Security Reliability Program (formerly known as the Sufficiency Review Program), which provides timely and actionable advice to registered entities in support of CIP standards and is currently focused on the transition from the CIP Version 3 to CIP Version 5 standards. CID also conducts the periodic Grid Security Exercises and Grid Security Conferences. Further, CID supports the activities of the NERC Critical Infrastructure Protection Committee (CIPC) and its task forces and working groups.

CID's 2015 ongoing and new major activities include: holding the annual Grid Security Conference, which focuses on physical and cybersecurity issues facing the Electricity Sub-sector and builds on NERC's mission to ensure the reliability of the North American BES through education and training; conducting the biennial Grid Security Exercise (GridEx III), which focuses on analyzing industry's response to a physical security and cybersecurity scenario and gathering lessons learned; coordinating with government departments and agencies on critical infrastructure policy issues; supporting NERC External Affairs and CEO in preparation for public presentations and follow-on actions; supporting CIP standards development and implementation through outreach presentations, webinars, and other training opportunities; and supporting the activities of the CIPC and its subgroups, including working through the CIPC to address emerging risk issues and support risk projects in 2015 as needed.

The major activities of CID satisfy the following criteria:
I.C.1: Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information for Reliability Standards development, including for purposes of identifying areas in which new Reliability Standards could be developed, existing Reliability Standards could be revised, or existing Reliability Standards could be eliminated, such as: (1) measuring reliability performance-past, present, and future; publishing or disseminating the results of such measurements; analyzing the results of such measurements; identifying and analyzing risks to reliability of the Bulk Power System based on such measurements; and/or identifying approaches to mitigating or eliminating such risks?
III.B: Is the activity necessary or appropriate for measuring reliability performance - past, present, and future; publishing or disseminating the results of such measurements; analyzing the results of such measurements; identifying and analyzing risks to reliability of the Bulk Power System based on such measurements; and/or identifying approaches to mitigating or eliminating such risks?
III.E: Is the activity necessary or appropriate for gathering, analyzing and sharing with and among industry and government participants, information regarding the physical or cyber security of the Bulk Power System?
III.F: Is the activity necessary or appropriate for the development and dissemination of Advisories/Recommendations/Essential Actions regarding lessons learned and potential reliability risks to users, owners, and operators of the Bulk Power System?

V: Is the activity one that is required or specified by, or carries out, the provisions of NERC's Rules of Procedure that have been approved by the Commission as "Electric Reliability Organization Rules" (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable Rules of Procedure provisions for these major activities are $\S 810$ and 1003.)
IX. Is the activity necessary or appropriate for NERC and Regional Entity committees, subcommittees and working groups engaged in activities encompassed by one or more of the other criteria?

## VII. Electricity Sector Information Sharing and Analysis Center 2015 Major Activities

The major activities of the Electricity Sector Information Sharing and Analysis Center (ES-ISAC) are described on pages 53-58 and Exhibit F of the 2015 Business Plan and Budget. The primary function of ES-ISAC is the rapid and secure sharing of information with the electric industry and governmental entities regarding real and potential security threats to the electricity sector and methods and tools to avoid or mitigate the potential impact from these threats. ES-ISAC facilitates sector coordination, mitigation development, and mitigation delivery for physical security, cybersecurity, and all hazards events. ES-ISAC develops alerts and notifications for distribution to registered entities and uses its secure portal to receive reports from industry members. ES-ISAC manages and executes NERC's responsibilities in the Cybersecurity Risk Information Sharing Program (CRISP) and acts as the program manager for CRISP.ES-ISAC maintains a seat on the operations floor of the National Cybersecurity and Communications Integration Center within the Department of Homeland Security. ES-ISAC also conducts Cyber Risk Preparedness Assessments (CRPA) for registered entities.

The ongoing and new major activities of the ES-ISAC for 2015 include: improving the usability and functionality of the information-sharing portal; preparing a CRPA toolkit to allow industry to conduct selfassessments of cyber risk preparedness, and conducting training and education sessions on the toolkit; and increasing analytical capabilities (including cyber awareness monitoring), portal monitoring, and information sharing. ES-ISAC will act as program manager for CRISP, enter into and manage a master services agreement with participating electric utilities, oversee the installation of the passive information sharing devices (ISDs) at utility sites and the associated monitoring activities, enter into and manage sub-contracts as necessary, serve as the central point for coordination and collaborative analysis of CRISP data, and share CRISP reporting and data with the registered users of the ES-ISAC portal. In carrying out its activities, the ES-ISAC use various software integration support services, the analyst workbench toolset, the Contested Operational Network for Reporting and Defense system for secure bi-directional communications, and certain intelligence reporting services. Additionally, the ESISAC will conduct periodic webinars relating to reporting in response to the NERC Aurora Alerts. Finally, through an annual member conference, the ES-ISAC will continue to offer workshops and other industry training and collaboration capabilities such as the CRPA.

The major activities of the ES-ISAC satisfy the following criteria:
III.D: Is the activity necessary or appropriate for awareness of circumstances on the Bulk Power System and to contribute to understanding risks to reliability?
III.E: Is the activity necessary or appropriate for gathering, analyzing, and sharing with and among industry and government participants, information regarding the physical or cyber security of the Bulk Power System?
III.F: Is the activity necessary or appropriate for the development and dissemination of Advisories/Recommendations/Essential Actions regarding lessons learned and potential reliability risks to users, owners, and operators of the Bulk Power System?

V: Is the activity one that is required or specified by, or carries out, the provisions of NERC's Rules of Procedure that have been approved by the Commission as "Electric Reliability Organization Rules" (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable Rules of Procedure provisions for these major activities are $\S 810$ and 1003.)

## VIII. Training, Education, and Operator Certification Program 2015 Major Activities

The major activities of the Training, Education, and Operator Certification Program are described on pages 61-62 of the 2015 Business Plan and Budget. The major activities of this program include oversight and coordination of the delivery of training programs to NERC and Regional Entity staff, including compliance auditors, relating to their job responsibilities, as well as training for industry participants on the Reliability Standards development process, the requirements of Reliability Standards, and the compliance monitoring and enforcement process. Training is also provided on registration and certification and on event analysis, cause analysis, and lessons learned. The Training and Education Program supports the ERO's responsibilities to develop, adopt, and obtain approval of Reliability Standards and to monitor, enforce, and achieve compliance with the mandatory standards. The Training and Education Program also supports NERC's System Operator Certification and Continuing Education (SOCCED) programs, which ensure that personnel operating the BES have the skills, training, and qualifications needed to operate the BES reliably. This program maintains the credentials for over 6,000 system operators to work in system control centers across North America.

The major activities of the Training, Education, and Operator Certification Program for 2015 include providing training and education for ERO personnel and industry in the following areas: auditor training; standards and compliance training; registration and certification (for registered entities); continuing education for system operators and other industry personnel as appropriate and related to reliability functions; and event analysis, cause analysis, and lessons learned. Training offered in 2015 will focus on standards compliance and emerging cyber-related issues potentially affecting BES reliability; consistent audit and investigation techniques and standards compliance reviews, including the RAI, FFT, and other improvements in compliance and enforcement practices; other auditor skills; development and implementation of clear and technically sound Reliability Standards; lessons learned and trends from events, trending and common cause analyses; effective compliance cultures to address reliability risks; effective root, apparent and common cause analytical methods; improvements to registered entity self-reporting and self-certification; entity registration processes, issues and alternatives; human performance fundamentals; and systematic approaches to training.

The major activities of the Training, Education, and Operator Certification Program satisfy the following criteria:
I.D: Is the activity necessary or appropriate for the provision of training and education concerning Reliability Standards development processes, procedures and topics for/to (i) NERC personnel, (ii) Regional Entity personnel, and (iii) industry personnel?
II.C: Is the activity necessary or appropriate for the Certification of system operating personnel as qualified to carry out the duties and responsibilities of their positions in accordance with the Requirements of applicable Reliability Standards?
II.F: Is the activity necessary or appropriate for the provision of training, education, and dissemination of information for/to (i) NERC personnel, (ii) Regional Entity personnel, and (iii) industry personnel with respect to compliance monitoring and enforcement topics and topics concerning reliability risks identified through compliance monitoring and enforcement activities, such as: (1) Requirements of Reliability Standards, including how to comply and how to demonstrate compliance? This includes development of guidance and interpretation documents. (2) Compliance monitoring and enforcement processes, including how to conduct them, how to participate in them, and the expectations for the processes? This includes development of guidance documents. (3) Disseminating, through workshops, webinars, Advisories/Recommendations/Essential Actions, and other publications, "lessons learned" information on compliance concerns and reliability risks obtained through compliance monitoring and enforcement activities, monitoring and investigation of Bulk Power System major events, off-normal occurrences and near-miss events, and other Bulk Power System monitoring activities. (4) Registered Entity internal processes for compliance with Reliability Standards, such as development, implementation and maintenance of internal reliability compliance programs?

V : Is the activity one that is required or specified by, or carries out, the provisions of NERC's Rules of Procedure that have been approved by the Commission as "Electric Reliability Organization Rules" (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable Rules of Procedure provision for these major activities are $\S 600$ and 900 .)

VI: Is the activity necessary or appropriate for the supervision and oversight of Regional Entities in the performance of their delegated responsibilities in accordance with FPA §215, 18 C.F.R. Part 39, the Commission-approved delegation agreement between NERC and the Regional Entity, the NERC ROP, and applicable provisions of FERC orders?

## IX. Administrative Services $\mathbf{2 0 1 5}$ Major Activities

NERC's Administrative Services departments are Technical Committees and Member Forums (for which no activities are budgeted for 2015), General and Administrative, Legal and Regulatory, Information Technology (IT), Human Resources, and Finance and Accounting. The major activities of these departments are described on pages $66,70,73-77,80-81$, and 84 of the 2015 Business Plan and Budget. General and Administrative includes the administration and general management of the organization, the Chief Executive Officer, Board of Trustees fees and expenses, communications and public relations, and office rent. Legal and Regulatory provides legal support to the organization, including to the Board, executive management, and the Reliability Standards, Compliance Analysis, Registration, and Certification, Reliability Risk Management, and RAPA Programs, as well as general corporate legal support. IT supports NERC's computing, Internet, database and electronic data storage and maintenance, and telecommunications needs, programs, applications, and infrastructure, including management of the development and implementation of new software applications and infrastructure. The capital expenditure projects managed by IT represent capital expenditures in hardware, software, and associated tools to securely gather, store, analyze, and maintain data across the ERO Enterprise to support the ERO's operations, as well as necessary acquisition and replacement of computers, servers, and related devices. Human Resources manages all of NERC's human resources functions, including new hires, benefits, employee functions, and the employee performance appraisal and incentive structure processes. Finance and Accounting manages all finance and accounting functions of NERC, including payroll, 401(k) and 457(b) plans, travel and expense reporting, monthly financial reporting, sales and use tax, meetings and events planning and services, insurance, internal audit, facilities management, development of the annual business plan and budget, and the ERO risk management
framework.

The major activities of NERC's Administrative Services departments satisfy the following criteria:
I.A: Is the activity necessary or appropriate for Reliability Standards development projects pursuant to the NERC Rules of Procedure (ROP)?
II.A: Is the activity necessary or appropriate for the identification and registration of users, owners, and operators of the Bulk Power System that are required to comply with Requirements of Reliability Standards applicable to the reliability functions for which they are registered?
II.D: Is the activity necessary or appropriate for conducting, participating in, or overseeing compliance monitoring and enforcement activities pursuant to the NERC ROP and (through the Regional Entities) the Commission-approved delegation agreements?
III.C: Is the activity necessary or appropriate for investigating, analyzing, evaluating, and disseminating information concerning the causes of major events and off-normal occurrences, and/or providing coordination assistance, technical expertise and other assistance to users, owners, and operators of the Bulk Power System in connection with Bulk Power System major events and off-normal occurrences, but not real-time operational control of the Bulk Power System?

V: Is the activity one that is required or specified by, or carries out, the provisions of NERC's Rules of Procedure that have been approved by the Commission as "Electric Reliability Organization Rules" (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable Rules of Procedure provision for this major activity (Finance and Accounting) is $\S 1100$.)

VI: Is the activity necessary or appropriate for the supervision and oversight of Regional Entities in the performance of their delegated responsibilities in accordance with FPA §215, 18 C.F.R. Part 39, the Commission-approved delegation agreement between NERC and the Regional Entity, the NERC ROP, and the applicable provisions of Commission orders.
IX. Is the activity necessary or appropriate for NERC and Regional Entity committees, subcommittees and working groups engaged in activities encompassed by one or more of the other criteria?
X. Is the activity necessary or appropriate for the analysis and evaluation of activities encompassed by one or more of the other criteria for the purpose of identifying means of performing the activities more effectively and efficiently?

XI: Is the activity a governance or administrative/overhead function, activity or service necessary or appropriate for the activities encompassed by the other criteria and, in general, necessary and appropriate to operate a functioning organization?

## NERC WRITTEN CRITERIA FOR DETERMINING WHETHER AN ACTIVITY IS ELIGIBLE TO BE FUNDED UNDER SECTION 215 OF THE FEDERAL POWER ACT

For purposes of internal management approval of a proposed new activity or group of related activities "major activity", the proposed activity or major activity must be shown to fall within at least one of the criteria listed below. When sub-criteria are listed below a roman numeral-numbered major criterion, the proposed activity should be a positive answer to at least one of the sub-criteria. Conversely, an activity that falls under a subcriterion should pertain to the subject matter of the major criterion.

NERC's annual business plan and budget will describe how each major activity falls within one or more of the criteria listed below. If the major activity is substantially the same as a major activity that was shown to fall within the criteria in a previous year's business plan and budget, the current year's business plan and budget can refer to the prior year's business plan and budget.

A determination that an activity falls within FPA $\S 215$ does not necessarily mean that NERC will propose or undertake such activity. The determination of whether an activity falling under FPA $\S 215$ should or will be undertaken in a given budget year will be addressed in the context of the applicable business plan and budget and will include opportunities for stakeholder input.

The criteria listed below are not necessarily distinct from one another. An activity or major activity may fall within more than one of the criteria listed below.
I. Is the activity necessary or appropriate for the development of Reliability Standards?
A. Is the activity necessary or appropriate for Reliability Standards development projects pursuant to the NERC Rules of Procedure (ROP)?
B. Is the activity necessary or appropriate for providing guidance and assistance to Regional Entities in carrying out Regional Reliability Standards development activities?
C. Is the activity necessary or appropriate for information gathering, collection, and analysis activities to obtain information for Reliability Standards development, including for purposes of identifying areas in which new Reliability Standards could be developed, existing Reliability Standards could be revised, or existing Reliability Standards could be eliminated, such as:

1. Measuring reliability performance—past, present and future; publishing or disseminating the results of such measurements; analyzing the results of such measurements; identifying and analyzing risks to reliability of the Bulk Power System ${ }^{36}$ based on such measurements; and/or identifying approaches to mitigating or eliminating such risks?
2. Monitoring, event analysis, and investigation of Bulk Power System major events, offnormal occurrences and near-miss events?
D. Is the activity necessary or appropriate for the provision of training and education concerning Reliability Standards development processes, procedures, and topics for/to (i) NERC personnel, (ii) Regional Entity personnel, and (iii) industry personnel?
II. Is the activity necessary or appropriate for the monitoring and enforcement of compliance with Reliability Standards?
A. Is the activity necessary or appropriate for the identification and registration of users, owners, and operators of the Bulk Power System that are required to comply with Requirements of Reliability Standards applicable to the reliability functions for which they are registered?
B. Is the activity necessary or appropriate for the Certification of Reliability Coordinators, Transmission Operators, and Balancing Authorities as having the requisite personnel,

[^26]qualifications, facilities, and equipment needed to perform these reliability functions in accordance with the applicable Requirements of Reliability Standards?
C. Is the activity necessary or appropriate for the Certification of system operating personnel as qualified to carry out the duties and responsibilities of their positions in accordance with the Requirements of applicable Reliability Standards? ${ }^{37}$
D. Is the activity necessary or appropriate for conducting, participating in, or overseeing compliance monitoring and enforcement activities pursuant to the NERC ROP and (through the Regional Entities) the Commission-approved delegation agreements?
E. Is the activity necessary or appropriate for information gathering, collection, and analysis activities to obtain information to monitor and enforce compliance with Reliability Standards, including evaluating the effectiveness of current compliance monitoring and enforcement processes, the need for new or revised compliance monitoring and enforcement processes, and the need for new or different means of training and education on compliance with Reliability Standards, such as:

1. Measuring reliability performance—past, present and future; publishing or disseminating the results of such measurements; analyzing the results of such measurements; identifying and analyzing risks to reliability of the Bulk Power System based on such measurements; and/or identifying approaches to mitigating or eliminating such risks?
2. Monitoring, event analysis, and investigation of Bulk Power System major events, offnormal occurrences, and near-miss events?
F. Is the activity necessary or appropriate for the provision of training, education, and dissemination of information for/to (i) NERC personnel, (ii) Regional Entity personnel, and (iii) industry personnel with respect to compliance monitoring and enforcement topics and topics concerning reliability risks identified through compliance monitoring and enforcement activities, such as:
3. Requirements of Reliability Standards, including how to comply and how to demonstrate compliance? This includes development of guidance and interpretation documents.
4. Compliance monitoring and enforcement processes, including how to conduct them, how to participate in them, and the expectations for the processes? This includes development of guidance documents.
5. Disseminating, through workshops, webinars, Advisories/Recommendations/Essential Actions, and other publications, "lessons learned" information on compliance concerns and reliability risks obtained through compliance monitoring and enforcement activities, monitoring and investigation of Bulk Power System major events, off-normal occurrences and near-miss events, and other Bulk Power System monitoring activities?
6. Registered Entity internal processes for compliance with Reliability Standards, such as development, implementation and maintenance of internal reliability compliance programs?
G. Is the activity necessary or appropriate for the development and provision of tools and services that are useful for the provision of adequate reliability, because they relate specifically to compliance with existing Reliability Standards and they proactively help avert Reliability Standard violations and Bulk Power System disturbances?
III. Is the activity necessary or appropriate for conducting and disseminating periodic assessments of the reliability of the Bulk Power System or monitoring the reliability of the Bulk Power System?
A. Is the activity necessary or appropriate for the preparation or dissemination of long-term, seasonal, and special assessments of the reliability and adequacy of the Bulk Power System?
B. Is the activity necessary or appropriate for measuring reliability performance-past, present, and future; publishing or disseminating the results of such measurements; analyzing the results of

[^27]such measurements; identifying and analyzing risks to reliability of the Bulk Power System based on such measurements; and/or identifying approaches to mitigating or eliminating such risks?
C. Is the activity necessary or appropriate for investigating, analyzing, evaluating, and disseminating information concerning the causes of major events and off-normal occurrences, and/or providing coordination assistance, technical expertise and other assistance to users, owners, and operators of the Bulk Power System in connection with Bulk Power System major events and off-normal occurrences, but not real-time operational control of the Bulk Power System?
D. Is the activity necessary or appropriate for awareness of circumstances on the Bulk Power System and to contribute to understanding risks to reliability?
E. Is the activity necessary or appropriate for gathering, analyzing, and sharing with and among industry and government participants, information regarding the physical or cyber security of the Bulk Power System?
F. Is the activity necessary or appropriate for the development and dissemination of Advisories/Recommendations/Essential Actions regarding lessons learned and potential reliability risks to users, owners, and operators of the Bulk Power System?
G. Is the activity necessary or appropriate for data collection and analysis of information regarding Bulk Power System reliability matters mandated by the Commission?
IV. Is the activity one that was required or directed by a Commission order issued pursuant to FPA §215? Justification of an activity as a FPA §215 activity based on this category must reference the particular Commission order and directive.
V. Is the activity one that is required or specified by, or carries out, the provisions of NERC's Rules of Procedure that have been approved by the Commission as "Electric Reliability Organization Rules" (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)?
VI. Is the activity necessary or appropriate for the supervision and oversight of Regional Entities in the performance of their delegated responsibilities in accordance with FPA §215, 18 C.F.R. Part 39, the Commission-approved delegation agreement between NERC and the Regional Entity, the NERC ROP, and applicable provisions of Commission orders?
VII. Is the activity necessary or appropriate for maintaining NERC's certification as the Electric Reliability Organization? This Criterion includes conducting periodic assessments of NERC's and the Regional Entities' performance as the Electric Reliability Organization as required by 18 C.F.R. §39.3(c).
VIII. Does the activity respond to or is it necessary or appropriate for audits of NERC and the Regional Entities conducted by the Commission?
IX. Is the activity necessary or appropriate for NERC and Regional Entity committees, subcommittees, and working groups engaged in activities encompassed by one or more of the other criteria?
X. Is the activity necessary or appropriate for the analysis and evaluation of activities encompassed by one or more of the other criteria for the purpose of identifying means of performing the activities more effectively and efficiently?
XI. Is the activity a governance or administrative/overhead function, activity, or service necessary or appropriate for the activities encompassed by the other criteria and, in general, necessary and appropriate to operate a functioning organization? (Should NERC perform any non-FPA §215 activities, the costs of governance and administrative/overhead functions must be appropriately allocated.)
NERC's current governance and administrative/overhead functions are carried out in the following program areas:
A. Technical Committees and Members' Forum Programs
B. General and Administrative (includes, but is not limited to, executive, board of trustees, communications, government affairs, and facilities and related services)
C. Legal and Regulatory
D. Information Technology
E. Human Resources
F. Accounting and Finance

The following matters are excluded from the scope of FPA §215 activities. While a list of non-FPA §215 activities would be infinite, the following excluded matters are listed here because they are expressly referred to in FPA §215, the Commission's ERO regulations and/or a Commission order issued pursuant to FPA §215:
A. Developing or enforcing requirements to enlarge Bulk Power System facilities, or to construct new transmission capacity or generation capacity, or requirements for adequacy or safety of electric facilities or services.
B. Activities entailing Real-time operational control of the Bulk Power System.
C. Activities pertaining to facilities used in the local distribution of electricity.

## Exhibit C - Contractor and Consulting Costs



| Program | Consultants \& Contracts | 2014 BUDGET | 2015 BUDGET | INC (DEC) <br> OVER 2014 |
| :---: | :---: | :---: | :---: | :---: |
| General \& Administrative | Communications support | 75,000 | 15,000 | $(60,000)$ |
|  | Total General \& Administrative | 75,000 | 15,000 | $(60,000)$ |
| Information Technology |  |  |  |  |
|  | ERO Application Development | 790,000 | 829,350 | 39,350 |
|  | ERO Data Analysis |  | 100,000 | 100,000 |
|  | Applications Enhancements, Consulting and Help Desk Support | 1,154,000 | 800,250 | $(353,750)$ |
|  | Total Information Technology | 1,944,000 | 1,729,600 | $(214,400)$ |
| Human Resources | Executive Training and Development | 90,000 | 87,300 | $(2,700)$ |
|  | Staff Training and Development | 65,000 | 63,050 | $(1,950)$ |
|  | Compensation Consulting | 30,000 | 29,100 | (900) |
|  | Employee, industry and Board Surveys, succession planning | 45,000 | 43,650 | $(1,350)$ |
|  | HR Process Improvements | 27,500 | 26,675 | (825) |
|  | HR Consulting Services |  | 48,500 | 48,500 |
|  | Total Human Resources | 257,500 | 298,275 | 40,775 |
| Finance and Accounting | Internal Controls and Outside Auditor Consulting Support | 300,000 | 242,500 | $(57,500)$ |
|  | Audit procedures, practices, tools and reports consulting support | 50,000 | 48,500 | $(1,500)$ |
|  | Finance and Accounting Support | 50,000 | 48,500 | $(1,500)$ |
|  | Total Finance and Accounting | 400,000 | 339,500 | $(60,500)$ |
|  | TOTAL CONSULTANTS AND CONTRACTS | 6,828,973 | 14,311,466 | 7,482,493 |

## Exhibit D - Capital Financing

The company successfully closed on its capital financing program on January 10, 2014. The interest rate is floating and equal to LIBOR plus 275 basis points, which yielded a rate of $2.91 \%$ at closing. ${ }^{38}$ The total size of the nonrevolving credit facility is $\$ 7.5 \mathrm{M}$, with the total authorized borrowings each year limited to the amount approved by the Board of Trustees and FERC in that year's business plan and budget for IT hardware and the costs of developing software applications. Consistent with the terms of the loan documentation and its Board and FERCapproved 2014 budget, the company made an initial draw of $\$ 1.265 \mathrm{M}$ at the end of January. The company recorded new capital investments of approximately $\$ 1.65 \mathrm{M}$ in 2013 related to the development of software applications and IT hardware, ${ }^{39}$ a portion of which was financed with the proceeds from this initial draw. This first tranche of capital financing will be amortized over three years, commencing January 31, 2014, and can be prepaid without penalty. A balance of $\$ 1.416 \mathrm{M}$ is available for draw during the remainder of 2014 , which is also consistent with NERC's 2014 approved budget.

During 2013, NERC and the Regional Entities developed a common software application to process BES exception requests and commenced the development of an application to facilitate the management, analysis, and dissemination of information regarding events affecting BPS reliability (the Events Information Data System, or EIDS). As further detailed in the May 2014 presentations to the NERC Finance and Audit Committee and Standards Oversight and Technology Committee, the company encountered difficulties in the development of EIDS and put the project temporarily on hold, pending a review of the overall ERO Enterprise's enterprise IT architecture and enterprise application development strategy. An ERO Enterprise IT Strategy update was presented to the Standards Oversight and Technology Committee at its August 2014 meeting, including steps to improve application development strategy, oversight and execution.

As further described in NERC's 2014 and 2015 Business Plans and Budgets, as part of the ERO Enterprise IT strategy NERC and the Regional Entities are in the planning phases of several additional enterprise software applications including an application (the "RADS" application) to replace the legacy reliability assessment database, which currently requires hundreds of NERC and Regional Entity man-hours to process millions of data elements to populate up to 27 individual spreadsheets that are manually processed in connection with preparation of the summer and winter seasonal assessments. The replacement RADS application will allow regional staffs to input data into forms that would automatically populate a central database for almost immediate creation of the data required for seasonal assessments, reducing manual workload and potential for error. The resulting efficiency gains will be used to redirect resources in support of key reliability improvement initiatives. As contemplated in NERC's 2014 Business Plan and Budget, the company also engaged a consultant to help evaluate current software tools utilized to support compliance and registration systems currently used by NERC and the Regional Entities, including the merits of developing a replacement enterprise application.

As further discussed in the Introduction and Executive Summary and set forth in the table below, NERC has a 2015 proposed IT capital budget of approximately $\$ 3.6 \mathrm{M}, \$ 1.9 \mathrm{M}$ of which it is proposing to finance.

[^28]
## NERC 2015 CAPITAL BUDGET

## Computer \& Software CapEx

ERO Application Development ERO Data Analysis Tools
Generation Data Software Hardware

| $1,050,000$ |  |
| ---: | ---: |
|  | 550,000 |
| 200,000 |  |
|  | 100,000 |
| $\$ \quad 1,900,000$ |  |

IT Hardware and Software
Disaster Recovery
Data Storage
250,000
Data Storage
425,000
Replacement servers
202,000
NERC Software licenses
350,500
Replacement laptops
Total Computer \& Software CapEx
Equipment CapEx
Replacement network devices

Total Capital Budget

| 250,000 |  |
| ---: | ---: |
| 425,000 |  |
| 202,000 |  |
| 350,500 |  |
|  | 126,000 |
| $\$$ | $1,353,500$ |
|  |  |
| $\$$ | 365,000 |
|  | $3,618,500$ |

The table below sets forth the projected principal and interest repayment schedule for the amounts financed to date and the additional planned $\$ 1.9 \mathrm{M}$ in capital financing. This projection assumes an average interest rate of $3.5 \%$ over the term of the financing, which is consistent with the 2014 budget. Management is recommending that $3.5 \%$ continue to be used given the potential for interest rate increases during 2015. The actual interest rate and interest rate expense will be reflected in the quarterly budget to actual variance reports the company posts on its website, reviews in open session with the NERC Finance and Audit Committee, and files with FERC. Any variations in interest expense will be captured and reported as a contribution to the company operating reserves, the expenditures of which are subject to the terms of the company's Working Capital and Operating Reserve Policy.


## Exhibit E - Working Capital and Operating Reserve Amounts

Management is proposing a budget of $\$ 6.3 \mathrm{M}$ for working capital and operating reserves, which represents an increase of $\$ 773 \mathrm{k}$ from 2014. Working capital reserves (which includes funds reserved for future liabilities) are budgeted at $\$ 3.2 \mathrm{M}$, which is a reduction of $\$ 322.2 \mathrm{k}$ compared to 2014; this represents the amortization of the deferred rent liability. The total budget for known and unforeseen contingencies has been held at $\$ 2 \mathrm{M}$, which is consistent with the 2014 budget. However, unlike in the case of the 2014 budget, the entire amount has been budgeted for unforeseen contingencies.

## Working Capital - \$3.25M

Based on its 2014 cash flow projection and taking into account the historic manner in which NERC's assessments have been billed and paid, NERC does not anticipate needing access to working capital in 2014 to meet monthly cash flow needs. In the unlikely event NERC experiences a temporary cash flow shortage, it has the ability to either request authorization from the Finance and Audit Committee and Board of Trustees to temporarily access operating reserve funds, or draw on its $\$ 4 \mathrm{M}$ line of credit, as long as NERC is in compliance with the covenants under its bank credit agreement.

Per its credit agreement, NERC must maintain a ratio of working capital and operating reserves to debt service that is greater than or equal to 1.2 to 1.0 , and a ratio of liquidity to debt service that is greater than or equal to 1.5 to 1.0. Based upon NERC's 2014 projection and 2015 budget, these ratios are projected to be 3.8 to 1.0 and 11.5 to 1.0 at the end of 2015.

NERC has also posted letters of credit totaling approximately $\$ 101,236$ in lieu of cash security deposits in connection with its offices leases. In the event these lines of credit are drawn upon, NERC is required to reimburse the draws in full. Management does not recommend at this time that working capital be maintained as security for this reimbursement obligation, as cash flows are projected to be sufficient in 2014-2015 to support timely payment of office rent without the letters of credit being drawn on.

NERC has collected funding to offset future liabilities under lease agreements for the Atlanta and Washington, D.C. offices. The projected $\$ 3.2 \mathrm{M}^{40}$ year-end balance of these funds is being held as a segregated working capital reserve to offset these future liabilities. Pursuant to the company's Working Capital and Operating Reserve Policy, these funds may also be made available to satisfy debt service reserve and liquidity requirements as set forth therein and may be accessed for other purposes only upon receipt of necessary corporate and regulatory authorizations. ${ }^{41}$

[^29]Operating Reserves - \$3.1M Total (Known Contingency Category (\$0M) + Unforeseen Contingency Category (\$2M) + Personnel Certification and Operating Training Excess Revenues (\$591.4k)
(1) Known Contingencies where timing and amount uncertain - \$0M
(2) Unforeseen Contingencies - \$2M
(3) System Operator Certification Program - $\$ 591.4 \mathrm{k}$ - The projected $12 / 31 / 14$ reserve balance of the System Operator Certification Program is $\$ 996,430, \$ 405,042$ of which is projected to be used to fund budgeted costs that are in excess of projected funding.
(4) CRISP - Pursuant the terms of the Master Services Agreement between NERC and participating utilities, a separate $\$ 500 \mathrm{k}$ CRISP participant (third party) funded reserve will be established to fund certain contingencies in connection with CRISP.

Total Working Capital + Operating Reserves - \$6.3M

## Exhibit F - Additional CRISP Detail

## Introduction and Executive Summary

This exhibit provides additional background on CRISP, NERC's proposed role, budget and funding requirements, as well as projected impacts on NERC's assessments to load serving entities.

## Background

CRISP is a voluntary program to facilitate the exchange of detailed cybersecurity information between electric utilities, the Electricity Sector Information Sharing and Analysis Center (ES-ISAC), the US Department of Energy (DOE), and Pacific Northwest National Laboratory (PNNL), to enable electric power critical infrastructure operators to better protect their networks from sophisticated cyber threats. The program uses passive sensors called Information Sharing Devices ("ISDs") to collect and transmit cybersecurity information from each site for analysis. CRISP also incorporates additional information exchange capabilities that permit some outputs from the analysis to be shared more broadly with the entire electricity sector, improving the overall sector cybersecurity posture. CRISP has two differentiators from other commercially available cyber risk monitoring services. The first is the intent and ability to integrate other cyber related threat information provided through governmental sources with the cyber threat information gathered from the ISDs installed at the participant's sites. Second is the ability of the program to look across organizations within the electricity subsector, identifying correlation and trends.

## Scope

The CRISP technology was deployed across the DOE networks over ten years ago. During the past several years, the technology has been deployed across five electric utilities through a DOE pilot program. Under the direction of DOE and in coordination with the Electricity Subsector Coordinating Council (ESCC), the deployment of CRISP is now transitioning from a pilot to broader deployment. While it will still only deployed to a small subset of the industry, information derived from this program will be disseminated broadly to registered users of the ES-ISAC, enhancing the entire industry's cybersecurity posture. The ESCC has endorsed this program and its members have taken a leadership role in advocating industry participation and funding support. Twenty-eight (28) electric utility organizations have been preliminarily identified for deployment of the CRISP capability, requiring an estimated 68 ISDs to be installed at the various sites.

## Roles and Responsibilities

## ES-ISAC

Under the contemplated structure, the ES-ISAC will assume the role of program manager for CRISP and will be responsible for providing certain agreed upon services to the participating electric utilities, including the oversight of the installation of the ISDs and associated analytical services. The ES-ISAC will provide a central point for coordination and be the hub for collaborative analysis of CRISP data. Additionally, unattributed CRISP reporting and data will be shared with registered users of the ES-ISAC portal providing more widespread benefits to industry. NERC will subcontract substantially all of these services to PNNL. In the future, the ES-ISAC will work with PNNL and utility participants to evaluate the costs and benefits of NERC developing the capability to either performing these services in-house without PNNL support, with reduced PNNL support or through a combination of in-house, PNNL and other commercially available subcontractor capabilities.

## PNNL and Argonne National Labs

PNNL is a United States Department of Energy National Laboratory, operated by Battelle with oversight by the Department of Energy. The main campus of the laboratory is in Richland, Washington. PNNL was the federal government's primary technical partner in establishing CRISP and will be the primary subcontractor to NERC in connection with the provision of CRISP services to participating utilities, subject to the potential use of different
subcontractors in the future and NERC building additional internal capabilities to provide the services which would initially be provided by PNNL.

Pursuant to its subcontract with NERC, PNNL will be responsible for the deployment of the required technology, supporting infrastructure, analysis, and the technical capabilities. Argonne National Lab (ANL) supports and maintains certain core components necessary for CRISP and would provide this support through an inter-lab agreement with PNNL.

## Technology

CRISP has three main technology elements. Together these elements provide the site with analysis of cybersecurity information, the ability to exchange cybersecurity threat information, and a means for secure data and voice communications across all CRISP participants. CRISP supplements a site's existing cybersecurity program and enables a level of collaboration that does not currently exist in the sector.

These three technology elements are:

- Information Sharing Device (ISD)

Hardware installed at the site that captures cybersecurity threat information for transmission to PNNL for analysis.

- Cyber Fed Model (CFM)

Software that enable the secure communication of cybersecurity threat information between PNNL, ANL, ES-ISAC, sites, and other participating organizations (government and non-government)

- Contested Operations Network for Reporting and Detection (CONRAD)

A secure communications device comprised of hardware and software that enables the secure voice and data transmission.

## Technical Overview

## Information Sharing Devices (ISD)

The CRISP ISD is a network device which uses commercial off the shelf hardware. It's placed at the transmitting site's (e.g. utility) network border, just outside the corporate firewall. Once the ISD is configured and activated, the data is encrypted and transmitted to PNNL for analysis. The ISD is not an intrusion prevention or detection system. It is a completely passive device that gathers cyber threat information necessary to understand the cyber threat tactics, techniques and procedures, and correlate information from across the CRISP sites with other cyber threat information made available by the government and other sources.

PNNL, with assistance from utility site personnel, will be responsible for the installation of the ISD, which will be owned and operated by the participating utility. ES-ISAC personnel also plan to be present on-site during these installations. PNNL will provide technical support to maintain the sensor operations and ensure proper communications with the ISD data repository. PNNL has already installed a number of ISDs at utilities which are planning to participate in the program, including utilities who participated in the DOE pilot program.

## Cyber Fed Model (CFM)

Developed and operated by ANL, CFM is a software program that is installed on the site's computer and enables the exchange of cyber threat information with other CFM sites. ANL will support CFM installation at the sites through an inter-lab agreement with PNNL and can be done in conjunction with ISD installation. CFM provides a near real-time exchange of cyber threat information to and from participating organizations. It includes an encryption-based information-exchange protocol that allows the site to specifically determine who receives its data. Along with reports, and other situational-analysis information generated through CRISP, the data shared includes information regarding a combination of hostile IP addresses, DNS domains, and other threat indicators. This actionable data is provided to sites automatically (machine to machine) every 5-15 minutes. The ES-ISAC has
already established a CFM node at the NERC Washington office. Given the proposed change in NERC and the ESISAC's role in overseeing CRISP, NERC has deferred making a decision regarding the installation of an ISD on its network and, assuming receipt of all necessary corporate and regulatory authorizations to proceed with the program, will instead focus on overseeing installation of the ISDs at participating utility sites and performing the other functions and service described herein. In the future, NERC may decide to install an ISD on its network.

## Contested Operations Network for Reporting and Detection (CONRAD)

The CONRAD device and communications network allows a compromised site to collaborate and coordinate with other sites to mitigate the threat without the perpetrating actor monitoring the communications. This secure network uses technologies which are approved by the National Security Agency and are commercially available.

CONRAD requires the installation of a network device at the site to encrypt and decrypt communications. CONRAD enables both data and voice communications. Installation of CONRAD can occur in conjunction with ISD installation.

Figure 1 on the next page provides a visual overview of CRISP's three primary technology elements.

Figure 1: Visual of CRISP Technologies and Capability


## Overview of Contract Structure

Implementation of CRISP by NERC will be governed pursuant to a master agreement ("Master Agreement") between NERC and the participating utilities. NERC will subcontract the majority of the services and obligations under the Master Agreement to PNNL pursuant to the terms of a subcontract ("PNNL Contract") which will be executed contemporaneously with the execution of the Master Agreement. The terms and conditions of the Master Agreement and PNNL Contract are in the final stages of negotiation.

## CRISP Budget

The MSA provides that NERC participation in CRISP is subject to receipt of necessary annual business plan and budget approvals.

NERC's projected CRISP budget will include two major categories of expense (1) the projected PNNL subcontract costs and (2) incremental ES-ISAC personnel, hardware, software, meeting, travel, legal, insurance and indirect expenses associated with NERC's management and administration of CRISP and sharing of CRISP derived information through the ES-ISAC portal. NERC's total projected 2015 CRISP budget is approximately $\$ 9.3 \mathrm{M}$. Each of the major expense categories are further discussed below.

## 2015 PNNL Subcontract Budget

All 2015 PNNL subcontract costs will be allocated to and funded directly by participating utilities and not through assessments. PNNL 2015 subcontract will also contain a not to exceed price. The PNNL subcontract budget will
include hardware, personnel and other costs for ISD installation, as well as personnel, hardware, software, insurance and other expenses to provide the required monitoring and analytical services set forth in the Master Agreement.

The 2015 PNNL subcontract budget will assume 28 participating entities in 2015 and installation of 68 ISDs, several of which have already been installed pursuant to separate interim agreements between PNNL and participating utilities.

PNNL will be paid based on actual costs incurred, subject to the not to exceed price set forth in the agreement. Any increase in the PNNL 2015 subcontract price will require prior approval of NERC and the participating utilities, with NERC's approval conditioned upon agreement that any such additional costs are reimbursed entirely by the participating utilities and not funded through assessments.

## Projected Additional Internal ES-ISAC Resource Needs and Expenses

In addition to projected PNNL subcontract expenses, NERC has developed a 2015 budget for the additional ESISAC resource needs and expenses to initially support CRISP. NERC is projecting a 2015 CRISP (internal) ES-ISAC CRISP budget of approximately $\$ 1.75 \mathrm{M}$, which is in addition to the projected PNNL subcontract costs previously described.

## Additional ES-ISAC Personnel Resources

Initial year one support for CRISP will require the addition of 2 FTEs in the ES-ISAC. One FTE will be a manager level position and will be responsible for the day-to-day oversight and management of the technical and financial aspects of the Master Agreement and PNNL subontract. The second FTE will be an analyst position focused on analysis of CRISP data and dissemination of information among CRISP participants and ES-ISAC registered users.

In the long term, additional personnel additions may be warranted to support CRISP, especially if the decision is made to transition significant portions of the CRISP support in-house as mentioned above. In the event NERC moves forward with this initiative, as the program gets up and running and moves through initial year, these needs will be further assessed in collaboration with participating utilities and subject to review as part of NERC's business plan and budget and associated processes, including the receipt of any required corporate and regulatory authorizations.

## Additional ES-ISAC Data Storage, Hardware, Software, Meeting and Travel Expense and Professional Fees,

 Insurance and Indirect Cost AllocationNERC is also projecting the need to increase data storage needs, acquire additional hardware and software and upgrade the ES-ISAC portal to facilitate the sharing of CRISP information with ES-ISAC registered users. Meeting and travel expenses are also projected to increase given the ES-ISAC's program oversight role. In addition, NERC anticipates the need to retain the assistance of outside professionals to support various MSA activities.

Indirect cost allocations are driven by the ratio of ES-ISAC FTEs to total FTEs. Therefore, the projected addition of FTEs to the ES-ISAC results in an increase in the allocation of indirect expenses

The following table provides a breakdown of the additional 2015 ES-ISAC personnel, data storage, hardware, software, meeting, travel, conference, cellular, offices and professional fees and insurance expenses, together with a revised ES-ISAC indirect cost allocation. Cost of professional liability and cyber insurance insurance required under the MSA which is in excess of $\$ 100 \mathrm{k}$ will be paid for by the participating utilities.

| Personnel | $\$ 459,251$ |
| :--- | ---: |
| Data Storage | $\$ 300,000$ |
| Hardware and Software | $\$ 100,000$ |
| ES-ISAC Portal Upgrades | $\$ 100,000$ |
| Meetings, travel and conferences | $\$ 50,000$ |
| Cellular and other Office costs | $\$ 5,000$ |
| Professional Fees | $\$ 250,000$ |
| Insurance | $\$ 100,000$ |
| Indirect cost allocation | $\$ 390,817$ |
|  | Total |

## Funding

All of the PNNL subcontract costs, which represent the majority of the CRISP budget and includes ISD installation costs and supporting data analysis provided by PNNL will be allocated to and funded directly by participating utilities pursuant to the terms of the Master Agreement. In addition, participating utilities will also fund a separate \$500k CRISP reserve. CRISP participant funding is shown in the row labeled "Third Party Funding (CRISP)" on the ES-ISAC departmental comparative Statement of Activities in Attachment A.

With respect to the remaining projected incremental (internal) ES-ISAC CRISP resource needs and expenses totaling approximately $\$ 1.75 \mathrm{M}$ described in the preceding section, these costs will be shared equally between Load Serving Entities and CRISP participating utilities, with fifty percent (50\%) of these costs be recovered through assessments, after taking into account allocations of penalty funds and interest ${ }^{42}$. The remaining fifty percent ( $50 \%$ ) would be recovered from participating utilities. Fifty ( $50 \%$ ) of the total ES-ISAC internal budget of approximately $\$ 1.75 \mathrm{M}$, exclusive of PNNL costs, is equal to approximately $\$ 878 \mathrm{k}$ (See Attachment A, row labeled "Total NERC Funding"). This effectively represents the cap on the amount of 2015 CRISP budget that will be funded through assessments.

Sharing of these costs is appropriate given that anonymized information derived from CRISP would be disseminated broadly to the entire electricity subsector through the ES-ISAC, enhancing the entire electric power industry's cybersecurity posture. In the future management may propose changes to this sharing formula based on experience gained in its management of CRISP. However, for the initial contract year, a $50 / 50$ sharing of these costs is reasonable, especially as the vast majority of the program costs will be funded directly by participating utilities. Any future changes in this allocation formula and costs recovered through assessments would be subject to NERC finance and audit committee, board of trustees and FERC review and approval of NERC's future business plans and budgets and associated assessments, after due consideration of stakeholder feedback.

## Projected ES-ISAC and NERC 2015 Budget and Assessment Impact

Attachment A contains an analysis of the combined impact of the current estimate of the cost of the PNNL subcontract and the additional ES-ISAC resource needs and expenses described above, compared to the ES-ISAC budget presented in NERC's final 2015 business plan and budget without CRISP. With CRISP, projected 2015 total funding requirements for the ES-ISAC are projected to increase from approximately $\$ 4.5 \mathrm{M}$ to $\$ 13.8 \mathrm{M}$, an increase of approximately \$9.3M. (See Attachment A, row labeled "Total Budget (=B+C)".

[^30]Attachment $B$ contains an analysis of the total impact of the estimated costs of CRISP on the budget and assessment projections presented in NERC's 2015 business plan and budget assuming, as previously described, fifty percent (50\%) of the projected incremental internal ES-ISAC costs (exclusive of PNNL subcontract costs) will recovered through assessments and the balance of the CRISP costs (including PNNL subcontract costs) paid directly to NERC by participating utilities. This results in an approximate $\$ 496 \mathrm{k}, 1.0 \%$, projected increase in total NERC assessments from draft 2, without CRISP, (6.6\% increase to $7.6 \%$ increase).

The projected increase in assessments of approximately $\$ 496 \mathrm{k}$ shown in Attachment B is less than the projected assessment impact of approximately $\$ 861 \mathrm{k}$ shown in ES-ISAC comparative departmental comparative Statement of Activities in Attachment A due to the fact that the total amount of NERC's 2015 indirect costs would still be included in NERC's 2015 budget in the absence of CRISP.

Projections for 2016 and 2017
It is difficult at this stage to develop accurate projections of CRISP costs beyond 2015. For purposes of NERC's 2016 and 2017 overall budget projections it was assumed that CRISP costs would be approximately equal to 2015, except for a reduction in outside professional fees. It was also assumed that CRISP funding from third party participants would be consistent with 2015, except for the reduction for the one-time funding of reserves, with any increase in costs over and above the 2015 budget funded directly by CRISP participants.

## 2015 ES-ISAC Departmental Budget and CRISP Cost Analysis-Comparison

| Statement of Activities and Fixed Assets Expenditures 2014 Budget \& Projection and 2015 Budget |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ES-ISAC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{gathered} 2014 \\ \text { Budget } \\ \hline \end{gathered}$ |  | $\begin{gathered} 2014 \\ \text { Projection } \\ \hline \end{gathered}$ |  | Projection <br> 4 Budget <br> (Under) |  | $\begin{array}{r} 2015 \\ \text { Budget } \\ \hline \end{array}$ |  | 15 Budget 014 Budget ver(Under) |  | 2015 Budget W/O CRISP |  | 2015 Budget CRISP |
| Funding |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ERO Funding |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NERC Assessments* | \$ | 4,085,033 |  | 4,089,386 | \$ | 4,353 | \$ | 5,328,566 | \$ | 1,243,533 | \$ | 4,467,628 | \$ | 860,938 |
| Penalty Sanctions |  | 17,558 |  | 17,558 |  | - |  | 97,742 |  | 80,184 |  | 81,188 |  | 16,554 |
| Total NERC Funding | \$ | 4,102,591 | \$ | 4,106,944 | \$ | 4,353 | \$ | 5,426,307 | \$ | 1,323,716 | \$ | 4,548,815 | \$ | 877,492 |
| Third-Party Funding (CRISP) |  | - |  | - |  | - |  | 8,943,589 |  | 8,943,589 |  | 8,443,589 |  | 500,000 |
| Interest |  | 1,184 |  | - |  | $(1,184)$ |  | 248 |  | (936) |  | 206 |  | 42 |
| Total Funding (A) | \$ | 4,103,775 | \$ | 4,106,944 | \$ | 3,169 | \$ | 14,370,144 | \$ | 10,266,369 | \$ | 4,549,021 | \$ | 1,377,534 |
| Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 1,336,679 | \$ | 1,283,028 | \$ | $(53,651)$ | \$ | 1,733,405 | \$ | 396,726 | \$ | 1,370,048 |  | 363,357 |
| Payroll Taxes |  | 77,887 |  | 77,307 |  | (580) |  | 103,696 |  | 25,809 |  | 82,706 |  | 20,990 |
| Benefits |  | 135,474 |  | 128,072 |  | $(7,402)$ |  | 186,739 |  | 51,265 |  | 152,786 |  | 33,953 |
| Retirement Costs |  | 151,967 |  | 141,032 |  | $(10,935)$ |  | 195,059 |  | 43,092 |  | 154,108 |  | 40,951 |
| Total Personnel Expenses | \$ | 1,702,007 | \$ | 1,629,439 | \$ | $(72,568)$ | \$ | 2,218,899 | \$ | 516,892 | \$ | 1,759,648 |  | 459,251 |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Meetings |  |  | \$ | - | \$ | - | \$ | 60,000 | \$ | 60,000 | \$ | 45,000 |  | 15,000 |
| Travel |  | 88,428 |  | 95,000 |  | 6,572 |  | 126,000 |  | 37,572 |  | 96,000 |  | 30,000 |
| Conference Calls |  |  |  | 19,848 |  | 19,848 |  | 24,885 |  | 24,885 |  | 19,885 |  | 5,000 |
| Total Meeting Expenses | \$ | 88,428 | \$ | 114,848 | \$ | 26,420 | \$ | 210,885 | \$ | 122,457 | \$ | 160,885 |  | 50,000 |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | 786,450 | \$ | 701,600 | \$ | $(84,850)$ | \$ | 8,329,390 | \$ | 7,542,940 | \$ | 663,335 |  | 7,666,055 |
| Office Rent |  |  | \$ | - |  | - |  | - |  | - |  | - |  | - |
| Office Costs |  | 32,775 | \$ | 47,728 |  | 14,953 |  | 356,914 |  | 324,139 |  | 51,914 |  | 305,000 |
| Professional Services |  |  | \$ | - |  | - |  | 350,000 |  | 350,000 |  | - |  | 350,000 |
| Miscellaneous |  |  | \$ | - |  | - |  | 500 |  | 500 |  | 500 |  | - |
| Depreciation |  |  | \$ | - |  | - |  | - |  | - |  | - |  | - |
| Total Operating Expenses | \$ | 819,225 | \$ | 749,328 | \$ | $(69,897)$ | \$ | 9,036,804 | \$ | 8,217,579 | \$ | 715,749 | \$ | 8,321,055 |
| Total Direct Expenses | \$ | 2,609,660 | \$ | 2,493,615 | \$ | $(116,045)$ | \$ | 11,466,588 | \$ | 8,856,928 | \$ | 2,636,282 | \$ | 8,830,306 |
| Indirect Expenses | \$ | 1,451,372 | \$ | 1,610,555 | \$ | 159,183 | \$ | 2,173,799 | \$ | 722,428 | \$ | 1,804,996 | \$ | 368,803 |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |  | - |
| Total Expenses (B) | \$ | 4,061,032 | \$ | 4,104,170 | \$ | 43,138 | \$ | 13,640,387 | \$ | 9,579,355 | \$ | 4,441,278 | \$ | 9,199,108 |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Computer \& Software CapEx |  | - |  | - |  | - |  | 100,000 |  | 100,000 |  | - |  | 100,000 |
| Allocation of Fixed Assets | \$ | 42,937 | \$ | 14,637 |  | $(28,300)$ |  | 129,758 |  | 86,821 | \$ | 107,743 |  | 22,014 |
| Inc(Dec) in Fixed Assets ( $C$ ) | \$ | 42,937 | \$ | 14,637 | \$ | $(28,300)$ | \$ | 229,758 | \$ | 186,821 | \$ | 107,743 | \$ | $(100,000)$ |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ | 4,103,969 | \$ | 4,118,807 | \$ | 14,838 | \$ | 13,870,144 | \$ | 9,766,176 | \$ | 4,549,021 | \$ | 9,321,123 |
| FTES |  | 7.72 |  | 7.57 |  | (0.15) |  | 10.32 |  | 2.60 |  | 8.44 |  | 1.88 |

[^31]
## Attachment B <br> Comparison of Final 2015 Budget and Assessments with CRISP to Final 2015 Business Plan and Budget and Assessments without CRISP

| Statement of Activities and Fixed Assets Expenditures 2015 Budget |  |  |  |  |  |  |  |  |  |  |  | 2015 Budget without CRISP |  | Inc in Budget due to CRISP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STATUTORY |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{array}{r} 2014 \\ \text { Budget } \\ \hline \end{array}$ |  | 2014 Projection |  | iance 2014 <br> ion v 2014 <br> Budget <br> ver(Under) |  | 2015 Budget with CRISP |  | ariance 2015 dget v 2014 Budget Over(Under) | \% Inc 2015 over 2014 |  |  |  |  |
| Funding |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ERO Funding |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NERC Assessments | \$ | 51,401,382 | \$ | 51,401,382 | \$ | (0) | \$ | 55,308,375 | \$ | 3,906,993 | 7.6\% |  | 54,812,063 | \$ | 496,312 |
| Penalty Sanctions |  | 290,000 |  | 290,000 |  | - |  | 1,155,000 |  | 865,000 |  |  | 1,155,000 |  | - |
| Total NERC Funding | \$ | 51,691,382 | \$ | 51,691,382 | \$ | (0) | \$ | 56,463,375 | \$ | 4,771,993 |  |  | 55,967,063 | \$ | 496,312 |
| Third-Party Funding |  |  |  | - |  |  |  | 8,943,589 |  | 8,943,589 |  |  | - |  | 8,943,589 |
| Testing Fees |  | 1,620,000 |  | 1,620,000 |  |  |  | 1,670,000 |  | 50,000 |  |  | 1,670,000 |  | - |
| Services \& Software |  | 50,000 |  | 50,000 |  | - |  | 50,000 |  |  |  |  | 50,000 |  |  |
| Workshops |  | 354,000 |  | 239,000 |  | $(115,000)$ |  | 241,300 |  | $(112,700)$ |  |  | 241,300 |  |  |
| Interest |  | 20,000 |  | 2,500 |  | $(17,500)$ |  | 3,000 |  | $(17,000)$ |  |  | 3,000 |  | - |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |  |  | - |  | - |
| Total Funding (A) | \$ | 53,735,382 | \$ | 53,602,882 | \$ | $(132,500)$ | \$ | 67,371,264 | \$ | 13,635,882 | 25.4\% |  | 57,931,363 | \$ | 9,439,901 |
| Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 26,218,572 | \$ | 26,168,292 | \$ | $(50,280)$ | \$ | 27,580,677 | \$ | 1,362,105 |  | \$ | 27,217,320 |  | 363,357 |
| Payroll Taxes |  | 1,570,954 |  | 1,726,865 |  | 155,911 |  | 1,673,628 |  | 102,674 |  |  | 1,652,638 |  | 20,990 |
| Benefits |  | 3,385,917 |  | 3,179,008 |  | $(206,909)$ |  | 3,547,178 |  | 161,261 |  |  | 3,513,225 |  | 33,953 |
| Retirement Costs |  | 2,884,211 |  | 2,715,383 |  | $(168,828)$ |  | 3,001,829 |  | 117,618 |  |  | 2,960,878 |  | 40,951 |
| Total Personnel Expenses | \$ | 34,059,654 | \$ | 33,789,548 | \$ | $(270,106)$ | \$ | 35,803,312 | \$ | 1,743,658 | 5.1\% | \$ | 35,344,061 |  | 459,251 |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 1,052,150 | \$ | 1,061,453 | \$ | 9,303 | \$ | 1,050,000 | \$ | $(2,150)$ |  | \$ | 1,035,000 |  | 15,000 |
| Travel |  | 2,419,525 |  | 2,109,344 |  | $(310,181)$ |  | 2,203,395 |  | $(216,130)$ |  |  | 2,173,395 |  | 30,000 |
| Conference Calls |  | 317,851 |  | 293,649 |  | $(24,202)$ |  | 312,751 |  | $(5,100)$ |  |  | 307,751 |  | 5,000 |
| Total Meeting Expenses | \$ | 3,789,525 | \$ | 3,464,446 | \$ | $(325,079)$ | \$ | 3,566,146 | \$ | $(223,379)$ | -5.9\% | \$ | 3,516,146 |  | 50,000 |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | 6,828,973 | \$ | 7,516,119 | \$ | 687,146 | \$ | 14,311,466 | \$ | 7,482,493 |  |  | 6,645,411 |  | 7,666,055 |
| Office Rent |  | 2,617,300 |  | 2,650,299 |  | 32,999 |  | 2,987,777 |  | 370,477 |  |  | 2,987,777 |  | - |
| Office Costs |  | 3,506,074 |  | 3,410,106 |  | $(95,968)$ |  | 3,583,328 |  | 77,254 |  |  | 3,278,328 |  | 305,000 |
| Professional Services |  | 2,290,280 |  | 2,290,280 |  | - |  | 2,611,280 |  | 321,000 |  |  | 2,261,280 |  | 350,000 |
| Miscellaneous |  | 36,500 |  | 33,000 |  | $(3,500)$ |  | 36,500 |  | - |  |  | 36,500 |  | - |
| Depreciation |  | 2,333,006 |  | 1,790,990 |  | $(542,016)$ |  | 2,333,006 |  | - |  |  | 2,333,006 |  | - |
| Total Operating Expenses | \$ | 17,612,133 | \$ | 17,690,794 | \$ | 78,661 | \$ | 25,863,357 | \$ | 8,251,224 | 46.8\% | \$ | 17,542,302 | \$ | 8,321,055 |
| Total Direct Expenses | \$ | 55,461,313 | \$ | 54,944,788 | \$ | $(516,525)$ | \$ | 65,232,815 | \$ | 9,771,502 | 17.6\% | \$ | 56,402,509 | \$ | 8,830,306 |
| Indirect Expenses | \$ | 0 | \$ | - | \$ | (0) | \$ | (0) | \$ | (0) |  | \$ | - | \$ | (0) |
| Other Non-Operating Expenses | \$ | 144,000 | \$ | 79,367 | \$ | $(64,633)$ | \$ | 131,000 | \$ | $(13,000)$ | -9.0\% | \$ | 131,000 | \$ | - |
| Total Expenses (B) | \$ | 55,605,313 | \$ | 55,024,155 | \$ | $(581,157)$ | \$ | 65,363,815 | \$ | 9,758,502 | 17.5\% | \$ | 56,533,509 | \$ | 8,830,306 |
| Change in Assets | \$ | (1,869,930) | \$ | $(1,421,273)$ | \$ | 448,657 | \$ | 2,007,449 | \$ | 3,877,379 |  | \$ | 1,397,854 |  | $\underline{\text { 609,595 }}$ |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Depreciation | \$ | $(2,333,006)$ | \$ | $(1,790,990)$ |  | 542,016 | \$ | $(2,333,006)$ | \$ | - |  |  | $(2,333,006)$ | \$ | - |
| Computer \& Software CapEx |  | 2,904,790 |  | 2,025,476 |  | $(879,314)$ |  | 3,253,500 |  | 348,710 |  |  | 3,153,500 |  | 100,000 |
| Furniture \& Fixtures CapEx |  | - |  | - |  | - |  | - |  | - |  |  | - |  | - |
| Equipment CapEx |  | 213,000 |  | 186,721 |  | $(26,279)$ |  | 365,000 |  | 152,000 |  |  | 365,000 |  | - |
| Leasehold Improvements |  | - |  | - |  | - |  | - |  | - |  |  | - |  |  |
| Allocation of Fixed Assets | \$ | - | \$ | (0) | \$ | (0) | \$ | - | \$ | - |  | \$ | 0 | \$ | (0) |
| Inc(Dec) in Fixed Assets ( $C$ ) |  | 784,784 |  | 421,207 |  | $(363,577)$ |  | 1,285,494 |  | 500,710 |  |  | 1,185,494 |  | 100,000 |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ | 56,390,096 | \$ | 55,445,362 | \$ | $(944,734)$ | \$ | 66,649,309 | \$ | 10,259,212 | 18.2\% | \$ | 57,719,003 | \$ | 8,930,306 |
| TOTAL CHANGE IN WORKING CAPITAL ( $=$ A-B-C) ${ }^{1}$ | \$ | $(2,654,714)$ | \$ | $(1,842,480)$ | \$ | 812,234 | \$ | 721,955 | \$ | 3,376,669 |  | \$ | 212,360 | \$ | 509,595 |
| fTEs |  | 189.5 |  | 185.5 |  | (4.0) |  | 192.3 |  | 2.8 | 1.5\% |  | 190.42 |  | 1.88 |

NERC
NERC Staff Organization Chart 2015 Budget
NORTH AMERICAN ELECTRIC


Reliability Standards 2015 (Dept. 300)


Compliance Analysis, Certification and Registration 2015 (Dept. 406, 500)


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Reliability Assessment and Performance Analysis 2015 (Dept. 801)


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## Legal and Regulatory 2015 (Dept. 2200)

Compliance Enforcement 2015 (Dept. 404)



Human Resources, Accounting \& Finance and Information Technology 2015


| Data <br> Year | Regional Entity | ID | Entity | Country | Total NEL (MWh) | U.S. NEL | Canada NEL | Mexico NEL | $\begin{gathered} \% \text { of RE } \\ \text { total } \end{gathered}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \\ \hline \end{array}$ | $\begin{array}{r} \text { Mexico } \\ \text { Total } \end{array}$ | $\begin{array}{r} \text { \% of ERO } \\ \text { Total } \end{array}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | $\begin{array}{r} \text { Mexico } \\ \text { Total } \\ \hline \end{array}$ | $\begin{gathered} \text { \% of ERO- } \\ \text { US Only } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2013 | frcc | 1074 | Alachua, City of | u.s. | 120,437 | 120,437 |  |  | 0.054\% | 0.054\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | frcc | 1075 | Bartow, City of | u.s. | 271,500 | 271,500 |  |  | 0.123\% | 0.123\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | frcc | 1076 | Chattahoochee, City of | u.s. | 36,499 | 36,499 |  |  | 0.016\% | 0.016\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | fric | 1077 | Florida Keys Electric Cooperative Assn | u.s. | 719,000 | 719,000 |  |  | 0.325\% | 0.325\% | 0.000\% | 0.000\% | 0.016\% | 0.016\% | 0.000\% | 0.000\% | 0.018\% |
| 2013 | FRCC | 1078 | Florida Power \& Light Co. | u.s. | 109,491,600 | 109,491,600 |  |  | 49.476\% | 49.476\% | 0.000\% | 0.000\% | 2.436\% | 2.436\% | 0.000\% | 0.000\% | 2.764\% |
| 2013 | FRCC | 1079 | Florida Public Utilities Company | u.s. | 353,300 | 353,300 |  |  | 0.160\% | 0.160\% | 0.000\% | 0.000\% | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.009\% |
| 2013 | frec | 1080 | Gainesville Regional Utilities | u.s. | 1,760,000 | 1,760,000 |  |  | 0.795\% | 0.795\% | 0.000\% | 0.000\% | 0.039\% | 0.039\% | 0.000\% | 0.000\% | 0.044\% |
| 2013 | frec | 1081 | Homestead, City of | u.s. | 510,000 | 510,000 |  |  | 0.230\% | 0.230\% | 0.000\% | 0.000\% | 0.011\% | 0.011\% | 0.000\% | 0.000\% | 0.013\% |
| 2013 | fric | 1082 | JEA | u.s. | 11,962,000 | 11,962,000 |  |  | 5.405\% | 5.405\% | 0.000\% | 0.000\% | 0.266\% | 0.266\% | 0.000\% | 0.000\% | 0.302\% |
| 2013 | frcc | 1083 | Lakeland Electric | u.s. | 2,919,000 | 2,919,000 |  |  | 1.319\% | 1.319\% | 0.000\% | 0.000\% | 0.065\% | 0.065\% | 0.000\% | 0.000\% | 0.074\% |
| 2013 | frcc | 1626 | Lee County Electric Cooperative, Inc | u.s. | 3,665,500 | 3,665,500 |  |  | 1.656\% | 1.656\% | 0.000\% | 0.000\% | 0.082\% | 0.082\% | 0.000\% | 0.000\% | 0.093\% |
| 2013 | frcc | 1661 | City of Lake Worth | u.s. | 436,000 | 436,000 |  |  | 0.197\% | 0.197\% | 0.000\% | 0.000\% | 0.010\% | 0.010\% | 0.000\% | 0.000\% | 0.011\% |
| 2013 | fric | 1084 | Mount Dora, City of | u.s. | 88,900 | 88,900 |  |  | 0.040\% | 0.040\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | FRCC | 1085 | New Smyrna Beach, Utilities Commission of | u.s. | 386,000 | 386,000 |  |  | 0.174\% | 0.174\% | 0.000\% | 0.000\% | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.010\% |
| 2013 | frcc | 1086 | Orlando Utilities Commission | u.s. | 5,693,500 | 5,693,500 |  |  | 2.573\% | 2.573\% | 0.000\% | 0.000\% | 0.127\% | 0.127\% | 0.000\% | 0.000\% | 0.144\% |
| 2013 | FRCC | 1087 | Duke Energy Florida | u.s. | 39,215,601 | 39,215,601 |  |  | 17.720\% | 17.720\% | 0.000\% | 0.000\% | 0.872\% | 0.872\% | 0.000\% | 0.000\% | 0.990\% |
| 2013 | FRCC | 1088 | Quincy, City of | u.s. | 136,000 | 136,000 |  |  | 0.061\% | 0.061\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | FRCC | 1089 | Reedy Creek Improvement District | u.s. | 1,208,000 | 1,208,000 |  |  | 0.546\% | 0.546\% | 0.000\% | 0.000\% | 0.027\% | 0.027\% | 0.000\% | 0.000\% | 0.030\% |
| 2013 | FRCC | 1090 | St. Cloud, City of (OUC) | u.s. | 603,000 | 603,000 |  |  | 0.272\% | 0.272\% | 0.000\% | 0.000\% | 0.013\% | 0.013\% | 0.000\% | 0.000\% | 0.015\% |
| 2013 | FRCC | 1091 | Tallahassee, City of | u.s. | 2,684,000 | 2,684,000 |  |  | 1.213\% | 1.213\% | 0.000\% | 0.000\% | 0.060\% | 0.060\% | 0.000\% | 0.000\% | 0.068\% |
| 2013 | FRCC | 1092 | Tampa Electric Company | u.s. | 19,177,000 | 19,177,000 |  |  | 8.665\% | 8.665\% | 0.000\% | 0.000\% | 0.427\% | 0.427\% | 0.000\% | 0.000\% | 0.484\% |
| 2013 | frec | 1603 | City of Vero Beach | u.s. | 739,000 | 739,000 |  |  | 0.334\% | 0.334\% | 0.000\% | 0.000\% | 0.016\% | 0.016\% | 0.000\% | 0.000\% | 0.019\% |
| 2013 | frec | 1093 | Wauchula, City of | u.s. | 61,774 | 61,774 |  |  | 0.028\% | 0.028\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | fric | 1094 | Williston, City of | u.s. | 32,000 | 32,000 |  |  | 0.014\% | 0.014\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | frcc | 1095 | Winter Park, City of | u.s. | 432,000 | 432,000 |  |  | 0.195\% | 0.195\% | 0.000\% | 0.000\% | 0.010\% | 0.010\% | 0.000\% | 0.000\% | 0.011\% |
| 2013 | FRCC | 1072 | Florida Municipal Power Agency | u.s. | 5,524,000 | 5,524,000 |  |  | 2.496\% | 2.496\% | 0.000\% | 0.000\% | 0.123\% | 0.123\% | 0.000\% | 0.000\% | 0.139\% |
| 2013 | FRCC | 1073 | Seminole Electric Cooperative | u.s. | 13,077,500 | 13,077,500 |  |  | 5.909\% | 5.909\% | 0.000\% | 0.000\% | 0.291\% | 0.291\% | 0.000\% | 0.000\% | 0.330\% |
|  |  |  | TOTAL FRCC |  | 221,303,111 | 221,303,111 | - |  | 100.000\% | 100.000\% | 0.000\% | 0.000\% | 4.923\% | 4.923\% | 0.000\% | 0.000\% | 5.586\% |
| 2013 | MRO | 1199 | Basin Electric Power Cooperative | u.s. | 14,198,724 | 14,198,724 | - |  | 4.909\% | 4.909\% | 0.000\% | 0.000\% | 0.316\% | 0.316\% | 0.000\% | 0.000\% | 0.358\% |
| 2013 | mRO | 1201 | Central Iowa Power Cooperative (CIPCO) | u.s. | 2,845,657 | 2,845,657 | - |  | 0.984\% | 0.984\% | 0.000\% | 0.000\% | 0.063\% | 0.063\% | 0.000\% | 0.000\% | 0.072\% |
| 2013 | mRo | 1204 | Corn Belt Power Cooperative | u.s. | 2,048,324 | 2,048,324 | - |  | 0.708\% | 0.708\% | 0.000\% | 0.000\% | 0.046\% | 0.046\% | 0.000\% | 0.000\% | 0.052\% |
| 2013 | mRO | 1207 | Dairyland Power Cooperative | u.s. | 5,506,600 | 5,506,600 | - |  | 1.904\% | 1.904\% | 0.000\% | 0.000\% | 0.123\% | 0.123\% | 0.000\% | 0.000\% | 0.139\% |
| 2013 | mRo | 1210 | Great River Energy | u.s. | 13,924,194 | 13,924,194 | - |  | 4.814\% | 4.814\% | 0.000\% | 0.000\% | 0.310\% | 0.310\% | 0.000\% | 0.000\% | 0.351\% |
| 2013 | mRo | 1222 | Minnkota Power Cooperative, Inc. | u.s. | 4,356,097 | 4,356,097 | - |  | 1.506\% | 1.506\% | 0.000\% | 0.000\% | 0.097\% | 0.097\% | 0.000\% | 0.000\% | 0.110\% |
| 2013 | mRo | 1230 | Nebraska Public Power District | u.s. | 13,628,644 | 13,628,644 | - |  | 4.711\% | 4.711\% | 0.000\% | 0.000\% | 0.303\% | 0.303\% | 0.000\% | 0.000\% | 0.344\% |
| 2013 | mRo | 1232 | Omaha Public Power District | u.s. | 11,453,844 | 11,453,844 | - |  | 3.960\% | 3.960\% | 0.000\% | 0.000\% | 0.255\% | 0.255\% | 0.000\% | 0.000\% | 0.289\% |
| 2013 | mRo | 1237 | Southern Montana Generation and Transmission | u.s. | 6,964 | 6,964 | - |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | mRo | 1240 | Western Area Power Administration (UM) | u.s. | 9,040,686 | 9,040,686 | - |  | 3.125\% | 3.125\% | 0.000\% | 0.000\% | 0.201\% | 0.201\% | 0.000\% | 0.000\% | 0.228\% |
| 2013 | mRo | 1239 | Western Area Power Administration (LM) | u.s. | 126,885 | 126,885 | - |  | 0.044\% | 0.044\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | mRo | 1217 | Manitoba Hydro | can | 23,856,518 |  | 23,856,518 |  | 8.247\% | 0.000\% | 8.247\% | 0.000\% | 0.531\% | 0.000\% | 0.531\% | 0.000\% | 0.000\% |
| 2013 | mRo | 1235 | SaskPower | can | 22,658,000 |  | 22,658,000 |  | 7.833\% | 0.00\%\% | 7.833\% | 0.000\% | 0.504\% | 0.000\% | 0.504\% | 0.000\% | 0.000\% |
| 2013 | mRo | 1195 | Alliant Energy (Alliant East - WPL \& Alliant West IPL) | u.s. | 29,013,856 | 29,013,856 | - |  | 10.030\% | 10.030\% | 0.000\% | 0.000\% | 0.645\% | 0.645\% | 0.000\% | 0.000\% | 0.732\% |
| 2013 | mRo | 1216 | Madison, Gas and Electric | u.s. | 3,467,856 | 3,467,856 | - |  | 1.199\% | 1.199\% | 0.000\% | 0.000\% | 0.077\% | 0.077\% | 0.000\% | 0.000\% | 0.088\% |
| 2013 | mRo | 1220 | MidAmerican Energy Company | u.s. | 28,445,192 | 28,445,192 | - |  | 9.834\% | 9.834\% | 0.000\% | 0.000\% | 0.633\% | 0.633\% | 0.000\% | 0.000\% | 0.718\% |
| 2013 | mRo | 1221 | Minnesota Power | u.s. | 13,051,082 | 13,051,082 | - |  | 4.512\% | 4.512\% | 0.000\% | 0.000\% | 0.290\% | 0.290\% | 0.000\% | 0.000\% | 0.329\% |
| 2013 | mRo | 1226 | Montana-Dakota Utilities Co. | u.s. | 3,115,064 | 3,115,064 | - |  | 1.077\% | 1.077\% | 0.000\% | 0.000\% | 0.069\% | 0.069\% | 0.000\% | 0.000\% | 0.079\% |
| 2013 | mRo | 1231 | NorthWestern Energy | u.s. | 1,564,096 | 1,564,096 | - |  | 0.541\% | 0.541\% | 0.000\% | 0.000\% | 0.035\% | 0.035\% | 0.000\% | 0.000\% | 0.039\% |
| 2013 | mRo | 1233 | Otter Tail Power Company | u.s. | 4,588,910 | 4,588,910 | - |  | 1.586\% | 1.586\% | 0.000\% | 0.000\% | 0.102\% | 0.102\% | 0.000\% | 0.000\% | 0.116\% |
| 2013 | mRo |  | Wisconsin Public Service (WPS) | u.s. | 12,320,499 | 12,320,499 | - |  | 4.259\% | 4.259\% | 0.000\% | 0.000\% | 0.274\% | 0.274\% | 0.000\% | 0.000\% | 0.311\% |
| 2013 | mRo |  | Upper Peninsula Power Company (UPPCO) | u.s. | 822,962 | 822,962 | - |  | 0.285\% | 0.285\% | 0.000\% | 0.000\% | 0.018\% | 0.018\% | 0.000\% | 0.000\% | 0.021\% |
| 2013 | mRo | 1244 | Xcel Energy Company (NSP) | u.s. | 45,155,059 | 45,155,059 | - |  | 15.610\% | 15.610\% | 0.000\% | 0.000\% | 1.005\% | 1.005\% | 0.000\% | 0.000\% | 1.140\% |
| 2013 | mRo | 1196 | Ames Municipal Electric System | u.s. | 772,397 | 772,397 | - |  | 0.267\% | 0.267\% | 0.000\% | 0.000\% | 0.017\% | 0.017\% | 0.000\% | 0.000\% | 0.019\% |
| 2013 | mRo | 1604 | Atlantic Municipal Utilities | u.s. | 83,151 | 83,151 |  |  | 0.029\% | 0.029\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | mRO | 1476 | Badger Power Marketing Authority of Wisconsin, Inc. | u.s. | 403,818 | 403,818 | - |  | 0.140\% | 0.140\% | 0.000\% | 0.000\% | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.010\% |
| 2013 | mRo | 1200 | Cedar Falls Municipal Utilities | u.s. | 534,218 | 534,218 | - |  | 0.185\% | 0.185\% | 0.000\% | 0.000\% | 0.012\% | 0.012\% | 0.000\% | 0.000\% | 0.013\% |
| 2013 | mRO | 1477 | Central Minnesota Municipal Power Agency (CMMPA) | u.s. | 467,024 | 467,024 | - |  | 0.161\% | 0.161\% | 0.000\% | 0.000\% | 0.010\% | 0.010\% | 0.000\% | 0.000\% | 0.012\% |
| 2013 | MRO | 1203 | City of Escanaba | u.s. | 139,646 | 139,646 | - |  | 0.048\% | 0.048\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.004\% |


| $\begin{aligned} & \text { Data } \\ & \text { Year } \end{aligned}$ | Regional Entity | ID | Entity | Country | Total NEL (MWh) | U.S. NEL | Canada NEL | Mexico NEL | $\begin{gathered} \text { \% of RE } \\ \text { total } \end{gathered}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | $\begin{array}{\|c} \text { Mexico } \\ \text { Total } \end{array}$ | $\begin{array}{r} \% \text { of ERO } \\ \text { Total } \end{array}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | $\begin{array}{r} \text { Mexico } \\ \text { Total } \end{array}$ | $\begin{gathered} \text { \% of ERO- } \\ \text { US Only } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2013 | mRo | 1205 | Falls City Water \& Light Department | u.s. | 56,969 | 56,969 | - |  | 0.020\% | 0.020\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | mRo | 1206 | Fremont Department of Utilities | u.s. | 437,914 | 437,914 | - |  | 0.151\% | 0.151\% | 0.000\% | 0.000\% | 0.010\% | 0.010\% | 0.000\% | 0.000\% | 0.011\% |
| 2013 | mRO | 1208 | Geneseo Municipal Utilities | u.s. | 66,522 | 66,522 | - |  | 0.023\% | 0.023\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | mRO | 1209 | Grand Island Utilities Department | u.s. | 760,298 | 760,298 | - |  | 0.263\% | 0.263\% | 0.000\% | 0.000\% | 0.017\% | 0.017\% | 0.000\% | 0.000\% | 0.019\% |
| 2013 | mRO | 1606 | Harlan Municipal Utilities | u.s. | 24,078 | 24,078 |  |  | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | mRO | 1211 | Hastings Utilities | u.s. | 437,707 | 437,707 | - |  | 0.151\% | 0.151\% | 0.000\% | 0.000\% | 0.010\% | 0.010\% | 0.000\% | 0.000\% | 0.011\% |
| 2013 | MRO | 1212 | Heartland Consumers Power District | u.s. | 851,271 | 851,271 | - |  | 0.294\% | 0.294\% | 0.000\% | 0.000\% | 0.019\% | 0.019\% | 0.000\% | 0.000\% | 0.021\% |
| 2013 | MRO | 1213 | Hutchinson Utilities Commission | u.s. | 289,957 | 289,957 | - |  | 0.100\% | 0.100\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | MRO | 1215 | Lincoln Electric System | u.s. | 3,277,049 | 3,277,049 | - |  | 1.133\% | 1.133\% | 0.000\% | 0.000\% | 0.073\% | 0.073\% | 0.000\% | 0.000\% | 0.083\% |
| 2013 | mRo | 1218 | Manitowoc Public Utilities | u.s. | 541,613 | 541,613 | - |  | 0.187\% | 0.187\% | 0.000\% | 0.000\% | 0.012\% | 0.012\% | 0.000\% | 0.000\% | 0.014\% |
| 2013 | mRO | 1223 | Missouri River Energy Services | u.s. | 2,458,959 | 2,458,959 | - |  | 0.850\% | 0.850\% | 0.000\% | 0.000\% | 0.055\% | 0.055\% | 0.000\% | 0.000\% | 0.062\% |
| 2013 | mRo | 1224 | MN Municipal Power Agency (MMPA) | u.s. | 1,523,745 | 1,523,745 | - |  | 0.527\% | 0.527\% | 0.000\% | 0.000\% | 0.034\% | 0.034\% | 0.000\% | 0.000\% | 0.038\% |
| 2013 | mRO | 1607 | Montezuma Municipal Light \& Power | u.s. | 32,156 | 32,156 |  |  | 0.011\% | 0.011\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | MRO | 1227 | Municipal Energy Agency of Nebraska | u.s. | 1,177,524 | 1,177,524 | - |  | 0.407\% | 0.407\% | 0.000\% | 0.000\% | 0.026\% | 0.026\% | 0.000\% | 0.000\% | 0.030\% |
| 2013 | mRO | 1228 | Muscatine Power and Water | u.s. | 874,185 | 874,185 | - |  | 0.302\% | 0.302\% | 0.000\% | 0.000\% | 0.019\% | 0.019\% | 0.000\% | 0.000\% | 0.022\% |
| 2013 | mRo | 1229 | Nebraska City Utilities | u.s. | 171,711 | 171,711 | - |  | 0.059\% | 0.059\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | mRo | 1234 | Rochester Public Utilities | u.s. | 5,381 | 5,381 | - |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | mRo | 1236 | Southern Minnesota Municipal Power Agency | u.s. | 2,956,591 | 2,956,591 | - |  | 1.022\% | 1.022\% | 0.000\% | 0.000\% | 0.066\% | 0.066\% | 0.000\% | 0.000\% | 0.075\% |
| 2013 | mRo | 1241 | Willmar Municipal Utilities | u.s. | 263,089 | 263,089 | - |  | 0.091\% | 0.091\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | MRO | 1242 | Wisconsin Public Power, Inc. (East and West regions) | u.s. | 5,461,296 | 5,461,296 | - |  | 1.888\% | 1.888\% | 0.000\% | 0.000\% | 0.122\% | 0.122\% | 0.000\% | 0.000\% | 0.138\% |
|  |  |  | TOTAL MRO |  | 289,263,982 | 242,749,464 | 46,514,518 |  | 100.00\% | 83.920\% | 16.080\% | 0.000\% | 6.435\% | 5.401\% | 1.035\% | 0.000\% | 6.128\% |
| 2013 | NPCC | 1336 | New England | u.s. | 129,377,000 | 129,377,000 |  |  | 19.947\% | 19.947\% | 0.000\% | 0.000\% | 2.878\% | 2.878\% | 0.000\% | 0.000\% | 3.266\% |
| 2013 | NPCC | 1339 | New York | u.s. | 163,514,000 | 163,514,000 |  |  | 25.210\% | 25.210\% | 0.000\% | 0.000\% | 3.638\% | 3.638\% | 0.000\% | 0.000\% | 4.128\% |
| 2013 | nPCC | 1337 | Ontario | Canada | 140,737,000 |  | 140,737,000 |  | 21.698\% | 0.000\% | 21.698\% | 0.000\% | 3.131\% | 0.000\% | 3.131\% | 0.000\% |  |
| 2013 | nPCC | 1341 | Quebec | Canada | 189,722,000 |  | 189,722,000 |  | 29.251\% | 0.000\% | 29.251\% | 0.000\% | 4.221\% | 0.000\% | 4.221\% | 0.000\% |  |
| 2013 | nPCC | 1338 | New Brunswick | Canada | 14,084,000 |  | 14,084,000 |  | 2.171\% | 0.000\% | 2.171\% | 0.000\% | 0.313\% | 0.000\% | 0.313\% | 0.000\% |  |
| 2013 | NPCC | 1340 | Nova Scotia | Canada | 11,173,000 |  | 11,173,000 |  | 1.723\% | 0.000\% | 1.723\% | 0.000\% | 0.249\% | 0.000\% | 0.249\% | 0.000\% |  |
|  |  |  | TOTAL NPCC |  | 648,607,000 | 292,891,000 | 355,716,000 |  | 100.000\% | 45.157\% | 54.843\% | 0.000\% | 14.430\% | 6.516\% | 7.914\% | 0.000\% | 7.394\% |
| 2013 | RF | 1104 | Bay City | U.S. | 329,862 | 329,862 |  |  | 0.036\% | 0.036\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.008\% |
| 2013 | RF | 1102 | Cannelton Utilities | u.s. | 16,213 | 16,213 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | RF | 1105 | City of Chelsea | u.s. | 97,261 | 97,261 |  |  | 0.011\% | 0.011\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | RF | 1106 | City of Croswell | u.s. | 42,388 | 42,388 |  |  | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | RF | 1108 | City of Eaton Rapids | u.s. | 95,626 | 95,626 |  |  | 0.011\% | 0.011\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | RF | 1111 | City of Hart | u.s. | 48,870 | 48,870 |  |  | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | RF | 1490 | City of Lansing | u.s. | 2,224,945 | 2,224,945 |  |  | 0.245\% | 0.245\% | 0.000\% | 0.000\% | 0.049\% | 0.049\% | 0.000\% | 0.000\% | 0.056\% |
| 2013 | RF | 1112 | City of Marquette Board of Light \& Power | u.s. | 332,934 | 332,934 |  |  | 0.037\% | 0.037\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.008\% |
| 2013 | RF | 1114 | City of Portland | u.s. | 36,925 | 36,925 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | RF | 1116 | City of St. Louis | u.s. | 40,348 | 40,348 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | RF | 1118 | City of Wyandotte | u.s. | 219,715 | 219,715 |  |  | 0.024\% | 0.024\% | 0.000\% | 0.000\% | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.006\% |
| 2013 | RF | 1120 | Cloverland Electric Cooperative | u.s. | 902,455 | 902,455 |  |  | 0.099\% | 0.099\% | 0.000\% | 0.000\% | 0.020\% | 0.020\% | 0.000\% | 0.000\% | 0.023\% |
| 2013 | RF | 1122 | CMS ERM Michigan LLC | u.s. | 158,492 | 158,492 |  |  | 0.017\% | 0.017\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | RF | 1124 | Constellation New Energy (MECS-CONS) | u.s. | 904,866 | 904,866 |  |  | 0.100\% | 0.100\% | 0.000\% | 0.000\% | 0.020\% | 0.020\% | 0.000\% | 0.000\% | 0.023\% |
| 2013 | RF | 1123 | Constellation New Energy (MECS-DET) | u.s. | 1,093,115 | 1,093,115 |  |  | 0.120\% | 0.120\% | 0.000\% | 0.000\% | 0.024\% | 0.024\% | 0.000\% | 0.000\% | 0.028\% |
| 2013 | RF | 1126 | Consumers Energy Company | u.s. | 32,556,015 | 32,556,015 |  |  | 3.583\% | 3.583\% | 0.000\% | 0.000\% | 0.724\% | 0.724\% | 0.000\% | 0.000\% | 0.822\% |
| 2013 | RF | 1128 | Detroit Edison Company | u.s. | 46,383,652 | 46,383,652 |  |  | 5.104\% | 5.104\% | 0.000\% | 0.000\% | 1.032\% | 1.032\% | 0.000\% | 0.000\% | 1.171\% |
| 2013 | ${ }^{\text {RF }}$ | 1166 | Duke Energy Indiana | u.s. | 30,388,800 | 30,388,800 |  |  | 3.344\% | 3.344\% | 0.000\% | 0.000\% | 0.676\% | 0.676\% | 0.000\% | 0.000\% | 0.767\% |
| 2013 | RF | 1135 | Ferdinand Municipal Light \& Water | u.s. | 47,529 | 47,529 |  |  | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | RF | 1646 | FirstEnergy Solutions (MECS-CONS) | u.s. | 687,811 | 687,811 |  |  | 0.076\% | 0.076\% | 0.000\% | 0.000\% | 0.015\% | 0.015\% | 0.000\% | 0.000\% | 0.017\% |
| 2013 | RF | 1549 | FirstEnergy Solutions (MECS-DET) | u.s. | 2,382,157 | 2,382,157 |  |  | 0.262\% | 0.262\% | 0.000\% | 0.000\% | 0.053\% | 0.053\% | 0.000\% | 0.000\% | 0.060\% |
| 2013 | RF | 1612 | Glacial Energy (MECS-DET) | u.s. | 144,680 | 144,680 |  |  | 0.016\% | 0.016\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | RF | 1144 | Holland Board of Public Works | u.s. | 984,680 | 984,680 |  |  | 0.108\% | 0.108\% | 0.000\% | 0.000\% | 0.022\% | 0.022\% | 0.000\% | 0.000\% | 0.025\% |
| 2013 | RF | 1145 | Hoosier Energy | u.s. | 7,319,807 | 7,319,807 |  |  | 0.806\% | 0.806\% | 0.000\% | 0.000\% | 0.163\% | 0.163\% | 0.000\% | 0.000\% | 0.185\% |
| 2013 | RF | 1148 | Indiana Municipal Power Agency (DUKE CIN) | u.s. | 3,089,272 | 3,089,272 |  |  | 0.340\% | 0.340\% | 0.000\% | 0.000\% | 0.069\% | 0.069\% | 0.000\% | 0.000\% | 0.078\% |
| 2013 | RF | 1485 | Indiana Municipal Power Agency (NIPSCO) | u.s. | 429,073 | 429,073 |  |  | 0.047\% | 0.047\% | 0.000\% | 0.000\% | 0.010\% | 0.010\% | 0.000\% | 0.000\% | 0.011\% |
| 2013 | RF | 1486 | Indiana Municipal Power Agency (SIGE) | u.s. | 591,686 | 591,686 |  |  | 0.065\% | 0.065\% | 0.000\% | 0.000\% | 0.013\% | 0.013\% | 0.000\% | 0.000\% | 0.015\% |
| 2013 | RF | 1149 | Indianapolis Power \& Light Co. | u.s. | 14,785,670 | 14,785,670 |  |  | 1.627\% | 1.627\% | 0.000\% | 0.000\% | 0.329\% | 0.329\% | 0.000\% | 0.000\% | 0.373\% |


| Data Year | Regional Entity | ID | Entity | Country | Total NEL (MWh) | U.S. NEL | Canada NEL | Mexico NEL | $\underset{\text { \% of RE }}{\text { total }}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | $\begin{array}{r} \text { Mexico } \\ \text { Total } \end{array}$ | $\begin{array}{r} \text { \% of ERO } \\ \text { Total } \\ \hline \end{array}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | $\begin{array}{r} \text { Mexico } \\ \text { Total } \end{array}$ | $\begin{gathered} \text { \% of ERO- } \\ \text { us Only } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2013 | RF | 1553 | Integry Energy Services (MECS-CONS) | u.s. | 1,025,220 | 1,025,220 |  |  | 0.113\% | 0.113\% | 0.000\% | 0.000\% | 0.023\% | 0.023\% | 0.000\% | 0.000\% | 0.026\% |
| 2013 | RF | 1554 | Integry Energy Services (MECS-DET) | u.s. | 579,916 | 579,916 |  |  | 0.064\% | 0.064\% | 0.000\% | 0.000\% | 0.013\% | 0.013\% | 0.000\% | 0.000\% | 0.015\% |
| 2013 | RF |  | Integrys Energy Services (WEPC) | u.s. | 861,971 | 861,971 |  |  | 0.095\% | 0.095\% | 0.000\% | 0.000\% | 0.019\% | 0.019\% | 0.000\% | 0.000\% | 0.022\% |
| 2013 | RF | 1614 | Just Energy (MECS-DET) | u.s. | 14,499 | 14,499 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | RF | 1154 | Michigan Public Power Agency | u.s. | 1,277,731 | 1,277,731 |  |  | 0.141\% | 0.141\% | 0.000\% | 0.000\% | 0.028\% | 0.028\% | 0.000\% | 0.000\% | 0.032\% |
| 2013 | RF | 1155 | Michigan South Central Power Agency | u.s. | 640,768 | 640,768 |  |  | 0.071\% | 0.071\% | 0.000\% | 0.000\% | 0.014\% | 0.014\% | 0.000\% | 0.000\% | 0.016\% |
| 2013 | RF | 1158 | MidAmerican Energy Company Retail | u.s. | 99,497 | 99,497 |  |  | 0.011\% | 0.011\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | RF | 1163 | Northern Indiana Public Service Co. | U.S. | 17,596,567 | 17,596,567 |  |  | 1.936\% | 1.936\% | 0.000\% | 0.000\% | 0.391\% | 0.391\% | 0.000\% | 0.000\% | 0.444\% |
| 2013 | RF | 1164 | Ontonagon County Rural Electrification Assoc. | u.s. | 29,472 | 29,472 |  |  | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | RF | 1265 | PJM Interconnnection, LLC | u.s. | 695,629,380 | 695,629,380 |  |  | 76.550\% | 76.550\% | 0.000\% | 0.000\% | 15.476\% | 15.476\% | 0.000\% | 0.000\% | 17.560\% |
| 2013 | RF | 1172 | Sempra Energy Solutions (MECS-CONS) | U.S. | 677,352 | 677,352 |  |  | 0.075\% | 0.075\% | 0.000\% | 0.000\% | 0.015\% | 0.015\% | 0.000\% | 0.000\% | 0.017\% |
| 2013 | RF | 1171 | Sempra Energy Solutions (MECS-DET) | u.s. | 711,714 | 711,714 |  |  | 0.078\% | 0.078\% | 0.000\% | 0.000\% | 0.016\% | 0.016\% | 0.000\% | 0.000\% | 0.018\% |
| 2013 | RF | 1176 | Direct Energy (fka:Strategic Energy,LLC) (MECS-CONS) | u.s. | 12,917 | 12,917 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | RF | 1174 | Direct Energy (fka:Strategic Energy,LLC) (MECS-DET) | u.s. | 372,127 | 372,127 |  |  | 0.041\% | 0.041\% | 0.000\% | 0.000\% | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.009\% |
| 2013 | RF | 1581 | Spartan Renewable Energy | u.s. | 67,754 | 67,754 |  |  | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | RF | 1180 | Thumb Electric Cooperative | u.s. | 180,729 | 180,729 |  |  | 0.020\% | 0.020\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.005\% |
| 2013 | RF | 1662 | Ohio Valley Electric Corporation | u.s. | 644,612 | 644,612 |  |  | 0.071\% | 0.071\% | 0.000\% | 0.000\% | 0.014\% | 0.014\% | 0.000\% | 0.000\% | 0.016\% |
| 2013 | RF | 1181 | Vectren Energy Delivery of IN | U.S. | 5,759,508 | 5,759,508 |  |  | 0.634\% | 0.634\% | 0.000\% | 0.000\% | 0.128\% | 0.128\% | 0.000\% | 0.000\% | 0.145\% |
| 2013 | RF | 1183 | Village of Sebewaing | u.s. | 44,183 | 44,183 |  |  | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | RF | 1184 | Wabash Valley Power Association Inc. (DUKE CII) | u.s. | 2,801,698 | 2,801,698 |  |  | 0.308\% | 0.308\% | 0.000\% | 0.000\% | 0.062\% | 0.062\% | 0.000\% | 0.000\% | 0.071\% |
| 2013 | RF | 1488 | Wabash Valley Power Association Inc.(NIPSCO) | u.s. | 1,688,010 | 1,688,010 |  |  | 0.186\% | 0.186\% | 0.000\% | 0.000\% | 0.038\% | 0.038\% | 0.000\% | 0.000\% | 0.043\% |
| 2013 | RF | 1185 | Wisconsin Electric Power Co. | u.s. | 28,121,962 | 28,121,962 |  |  | 3.095\% | 3.095\% | 0.000\% | 0.000\% | 0.626\% | 0.626\% | 0.000\% | 0.000\% | 0.710\% |
| 2013 | RF | 1189 | Wolverine Power Marketing Cooperative | U.S. | 758,098 | 758,098 |  |  | 0.083\% | 0.083\% | 0.000\% | 0.000\% | 0.017\% | 0.017\% | 0.000\% | 0.000\% | 0.019\% |
| 2013 | RF | 1191 | Wolverine Power Supply Cooperative | U.S. | 2,658,358 | 2,658,358 |  |  | 0.293\% | 0.293\% | 0.000\% | 0.000\% | 0.059\% | 0.059\% | 0.000\% | 0.000\% | 0.067\% |
| 2013 | RF | 1190 | Wolverine Power Marketing Cooperative | U.S. | 137,689 | 137,689 |  |  | 0.015\% | 0.015\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.003\% |
|  |  |  | TOTAL RELABBIITYFIRST |  | 908,726,579 | 908,726,579 |  |  | 100.000\% | 100.000\% | 0.000\% | 0.000\% | 20.217\% | 20.217\% | 0.000\% | 0.000\% | 22.939\% |
| 2013 | SERC | 1267 | Alabama Municipal Electric Authority | u.s. | 3,409,691 | 3,409,691 |  |  | 0.338\% | 0.338\% | 0.000\% | 0.000\% | 0.076\% | 0.076\% | 0.000\% | 0.000\% | 0.086\% |
| 2013 | SERC | 1268 | Alabama Power Company | u.s. | 59,203,484 | 59,203,484 |  |  | 5.867\% | 5.867\% | 0.000\% | 0.000\% | 1.317\% | 1.317\% | 0.000\% | 0.000\% | 1.494\% |
| 2013 | SERC | 1269 | Ameren - Illinois | u.s. | 42,979,000 | 42,979,000 |  |  | 4.259\% | 4.259\% | 0.000\% | 0.000\% | 0.956\% | 0.956\% | 0.000\% | 0.000\% | 1.085\% |
| 2013 | SERC | 1271 | Ameren - Missouri | u.s. | 41,936,000 | 41,936,000 |  |  | 4.156\% | 4.156\% | 0.000\% | 0.000\% | 0.933\% | 0.933\% | 0.000\% | 0.000\% | 1.059\% |
| 2013 | SERC | 1272 | APGI - Yadkin Division | u.s. | 27,551 | 27,551 |  |  | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | SERC | 1660 | APGI - Tapoco Division (ALCOA) | u.s. | 316,134 | 316,134 |  |  | 0.031\% | 0.031\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.008\% |
| 2013 | SERC | 1273 | Associated Electric Cooperative Inc. | u.s. | 19,364,701 | 19,364,701 |  |  | 1.919\% | 1.919\% | 0.000\% | 0.000\% | 0.431\% | 0.431\% | 0.000\% | 0.000\% | 0.489\% |
| 2013 | SERC | 1582 | Beauregard Electric Cooperative, Inc. | u.s. | 1,117,856 | 1,117,856 |  |  | 0.111\% | 0.111\% | 0.000\% | 0.000\% | 0.025\% | 0.025\% | 0.000\% | 0.000\% | 0.028\% |
| 2013 | SERC | 1462 | Benton Utility District | u.s. | 272,291 | 272,291 |  |  | 0.027\% | 0.027\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | SERC | 1274 | Big Rivers Electric Corporation | u.s. | 3,824,402 | 3,824,402 |  |  | 0.379\% | 0.379\% | 0.000\% | 0.000\% | 0.085\% | 0.085\% | 0.000\% | 0.000\% | 0.097\% |
| 2013 | SERC | 1275 | Black Warrior EMC | U.S. | 438,860 | 438,860 |  |  | 0.043\% | 0.043\% | 0.000\% | 0.000\% | 0.010\% | 0.010\% | 0.000\% | 0.000\% | 0.011\% |
| 2013 | SERC | 1276 | Blue Ridge EMC | u.s. | 1,403,674 | 1,403,674 |  |  | 0.139\% | 0.139\% | 0.000\% | 0.000\% | 0.031\% | 0.031\% | 0.000\% | 0.000\% | 0.035\% |
| 2013 | SERC | 1628 | Brazos Electric Power Cooperative, Inc. | u.s. | 430,513 | 430,513 |  |  | 0.043\% | 0.043\% | 0.000\% | 0.000\% | 0.010\% | 0.010\% | 0.000\% | 0.000\% | 0.011\% |
| 2013 | SERC | 1463 | Canton, MS | u.s. | 121,271 | 121,271 |  |  | 0.012\% | 0.012\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | SERC | 1277 | Central Electric Power Cooperative Inc. | u.s. | 15,306,864 | 15,306,864 |  |  | 1.517\% | 1.517\% | 0.000\% | 0.000\% | 0.341\% | 0.341\% | 0.000\% | 0.000\% | 0.386\% |
| 2013 | SERC |  | Century Aluminum - Hawesville | u.s. | 4,271,731 | 4,271,731 |  |  | 0.423\% | 0.423\% | 0.000\% | 0.000\% | 0.095\% | 0.095\% | 0.000\% | 0.000\% | 0.108\% |
| 2013 | SERC |  | Century Aluminum - Sebree | u.s. | 3,252,188 | 3,252,188 |  |  | 0.322\% | 0.322\% | 0.000\% | 0.000\% | 0.072\% | 0.072\% | 0.000\% | 0.000\% | 0.082\% |
| 2013 | SERC | 1278 | City of Blountstown FL | u.s. | 38,099 | 38,099 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | SERC | 1279 | City of Camden SC | u.s. | 188,872 | 188,872 |  |  | 0.019\% | 0.019\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.005\% |
| 2013 | SERC | 1280 | City of Collins MS | u.s. | 49,787 | 49,787 |  |  | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | SERC | 1281 | City of Columbia MO | u.s. | 1,188,481 | 1,188,481 |  |  | 0.118\% | 0.118\% | 0.000\% | 0.000\% | 0.026\% | 0.026\% | 0.000\% | 0.000\% | 0.030\% |
| 2013 | SERC | 1282 | City of Conway AR (Conway Corporation) | u.s. | 1,035,034 | 1,035,034 |  |  | 0.103\% | 0.103\% | 0.000\% | 0.000\% | 0.023\% | 0.023\% | 0.000\% | 0.000\% | 0.026\% |
| 2013 | SERC | 1284 | City of Evergreen AL | u.s. | 58,711 | 58,711 |  |  | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | SERC | 1285 | City of Hampton GA | u.s. | 23,585 | 23,585 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | SERC | 1286 | City of Hartford AL | u.s. | 33,453 | 33,453 |  |  | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | SERC | 1287 | City of Henderson (KY) Municipal Power \& Light | U.S. | 617,149 | 617,149 |  |  | 0.061\% | 0.061\% | 0.000\% | 0.000\% | 0.014\% | 0.014\% | 0.000\% | 0.000\% | 0.016\% |
| 2013 | SERC | 1288 | City of North Little Rock AR (DENL) | u.s. | 958,745 | 958,745 |  |  | 0.095\% | 0.095\% | 0.000\% | 0.000\% | 0.021\% | 0.021\% | 0.000\% | 0.000\% | 0.024\% |
| 2013 | SERC | 1289 | City of Orangeburg SC Department of Public Utilities | u.s. | 836,257 | 836,257 |  |  | 0.083\% | 0.083\% | 0.000\% | 0.000\% | 0.019\% | 0.019\% | 0.000\% | 0.000\% | 0.021\% |
| 2013 | SERC | 1290 | City of Robertsdale AL | u.s. | 84,101 | 84,101 |  |  | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | SERC | 1291 | City of Ruston LA (DERS) | u.s. | 296,978 | 296,978 |  |  | 0.029\% | 0.029\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | SERC | 1292 | City of Seneca SC | u.s. | 159,906 | 159,906 |  |  | 0.016\% | 0.016\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.004\% |


| Data <br> Year | Regional Entity | ID | Entity | Country | Total NEL (MWh) | U.S. NEL | Canada NEL | Mexico NEL | $\begin{gathered} \% \text { of RE } \\ \text { total } \end{gathered}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | Mexico Total | $\begin{gathered} \% \text { of ERO } \\ \text { Total } \end{gathered}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | Mexico Total | $\begin{gathered} \text { \% of ERO- } \\ \text { US Only } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2013 | SERC | 1115 | City of Springfield (CWLP) | u.s. | 1,808,586 | 1,808,586 |  |  | 0.179\% | 0.179\% | 0.000\% | 0.000\% | 0.040\% | 0.040\% | 0.000\% | 0.000\% | 0.046\% |
| 2013 | serc | 1465 | City of Thayer, mo | u.s. | 23,197 | 23,197 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | serc | 1293 | City of Troy AL | u.s. | 427,446 | 427,446 |  |  | 0.042\% | 0.042\% | 0.000\% | 0.000\% | 0.010\% | 0.010\% | 0.000\% | 0.000\% | 0.011\% |
| 2013 | SERC | 1294 | City of West Memphis AR (West Memphis Utilities) | u.s. | 400,561 | 400,561 |  |  | 0.040\% | 0.040\% | 0.000\% | 0.000\% | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.010\% |
| 2013 | Sterc | 1583 | Claiborne Electric Cooperative, Inc. | u.s. | 671,322 | 671,322 |  |  | 0.067\% | 0.067\% | 0.000\% | 0.000\% | 0.015\% | 0.015\% | 0.000\% | 0.000\% | 0.017\% |
| 2013 | serc | 1584 | Concordia Electric Cooperative, Inc. | u.s. | 264,319 | 264,319 |  |  | 0.026\% | 0.026\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | SERC | 1283 | Dalton Utilities | u.s. | 1,585,498 | 1,585,498 |  |  | 0.157\% | 0.157\% | 0.000\% | 0.000\% | 0.035\% | 0.035\% | 0.000\% | 0.000\% | 0.040\% |
| 2013 | Sterc | 1585 | Dixie Electric Membership Corporation | u.s. | 2,271,088 | 2,271,088 |  |  | 0.225\% | 0.225\% | 0.000\% | 0.000\% | 0.051\% | 0.051\% | 0.000\% | 0.000\% | 0.057\% |
| 2013 | serc | 1295 | Dominion Virginia Power | u.s. | 85,837,830 | 85,837,830 |  |  | 8.507\% | 8.507\% | 0.000\% | 0.000\% | 1.910\% | 1.910\% | 0.000\% | 0.000\% | 2.167\% |
| 2013 | serc | 1296 | Duke Energy Carolinas, LLC | u.s. | 77,613,182 | 77,613,182 |  |  | 7.692\% | 7.692\% | 0.000\% | 0.000\% | 1.727\% | 1.727\% | 0.000\% | 0.000\% | 1.959\% |
| 2013 | serc | 1466 | Durant, MS | u.s. | 26,044 | 26,044 |  |  | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | serc | 1478 | LG\&E and KU Services Company as agent for LG\&E Company and KUCompany | u.s. | 35,041,560 | 35,041,560 |  |  | 3.473\% | 3.473\% | 0.000\% | 0.000\% | 0.780\% | 0.780\% | 0.000\% | 0.000\% | 0.885\% |
| 2013 | SERC | 1297 | East Kentucky Power Coooperative | u.s. | 13,342,933 | 13,342,933 |  |  | 1.322\% | 1.322\% | 0.000\% | 0.000\% | 0.297\% | 0.297\% | 0.000\% | 0.000\% | 0.337\% |
| 2013 | SERC | 1298 | East Mississippi Electric Power Association | u.s. | 466,364 | 466,364 |  |  | 0.046\% | 0.046\% | 0.000\% | 0.000\% | 0.010\% | 0.010\% | 0.000\% | 0.000\% | 0.012\% |
| 2013 | SERC |  | Electricities of North Carolina Inc | u.s. | 11,455,231 | 11,455,231 |  |  | 1.135\% | 1.135\% | 0.000\% | 0.000\% | 0.255\% | 0.255\% | 0.000\% | 0.000\% | 0.289\% |
| 2013 | SERC | 1300 | Energy United EMC | u.s. | 2,561,495 | 2,561,495 |  |  | 0.254\% | 0.254\% | 0.000\% | 0.000\% | 0.057\% | 0.057\% | 0.000\% | 0.000\% | 0.065\% |
| 2013 | SERC | 1301 | Entergy | u.s. | 110,500,922 | 110,500,922 |  |  | 10.951\% | 10.951\% | 0.000\% | 0.000\% | 2.458\% | 2.458\% | 0.000\% | 0.000\% | 2.789\% |
| 2013 | SERC | 1302 | Fayetteville (NC) Public Works Commission | u.s. | 2,148,077 | 2,148,077 |  |  | 0.213\% | 0.213\% | 0.000\% | 0.000\% | 0.048\% | 0.048\% | 0.000\% | 0.000\% | 0.054\% |
| 2013 | SERC | 1303 | Florida Public Utilities (FL Panhandle Load) | u.s. | 317,976 | 317,976 |  |  | 0.032\% | 0.032\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.008\% |
| 2013 | SERC | 1304 | French Broad EMC | u.s. | 532,169 | 532,169 |  |  | 0.053\% | 0.053\% | 0.000\% | 0.000\% | 0.012\% | 0.012\% | 0.000\% | 0.000\% | 0.013\% |
| 2013 | SERC | 1305 | Georgia Power Company | u.s. | 86,177,237 | 86,177,237 |  |  | 8.540\% | 8.540\% | 0.000\% | 0.000\% | 1.917\% | 1.917\% | 0.000\% | 0.000\% | 2.175\% |
| 2013 | SERC | 1306 | Georgia System Optns Corporation | u.s. | 37,429,348 | 37,429,348 |  |  | 3.709\% | 3.709\% | 0.000\% | 0.000\% | 0.833\% | 0.833\% | 0.000\% | 0.000\% | 0.945\% |
| 2013 | SERC | 1479 | Greenwood (MS) Utilities Commission | u.s. | 291,567 | 291,567 |  |  | 0.029\% | 0.029\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | SERC | 1307 | Greenwood (SC) Commissioners of Public Works | u.s. | 315,927 | 315,927 |  |  | 0.031\% | 0.031\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.008\% |
| 2013 | serc | 1308 | Gulf Power Company | u.s. | 11,507,385 | 11,507,385 |  |  | 1.140\% | 1.140\% | 0.000\% | 0.000\% | 0.256\% | 0.256\% | 0.000\% | 0.000\% | 0.290\% |
| 2013 | serc | 1586 | Haywood EMC | u.s. | 311,308 | 311,308 |  |  | 0.031\% | 0.031\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.008\% |
| 2013 | serc | 1309 | Illinois Municipal Electric Agency | u.s. | 1,928,400 | 1,928,400 |  |  | 0.191\% | 0.191\% | 0.000\% | 0.000\% | 0.043\% | 0.043\% | 0.000\% | 0.000\% | 0.049\% |
| 2013 | SERC | 1480 | Itta Bena, MS | u.s. | 14,366 | 14,366 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | SERC | 1587 | Jefferson Davis Electric Cooperative, Inc. | u.s. | 290,781 | 290,781 |  |  | 0.029\% | 0.029\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | SERC | 1617 | Kentucky Municipal Power | u.s. | 718,786 | 718,786 |  |  | 0.071\% | 0.071\% | 0.000\% | 0.000\% | 0.016\% | 0.016\% | 0.000\% | 0.000\% | 0.018\% |
| 2013 | SERC | 1481 | Kosciusko, MS | u.s. | 69,929 | 69,929 |  |  | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | SERC | 1482 | Leland, MS | u.s. | 30,580 | 30,580 |  |  | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | SERC | 1313 | McCormick Commission of Public Works | u.s. | 15,926 | 15,926 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | SERC | 1314 | Mississippi Power Company | u.s. | 10,629,207 | 10,629,207 |  |  | 1.053\% | 1.053\% | 0.000\% | 0.000\% | 0.236\% | 0.236\% | 0.000\% | 0.000\% | 0.268\% |
| 2013 | SERC | 1630 | Mt. Carmel Public Utility | u.s. | 95,851 | 95,851 |  |  | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | serc | 1315 | Municipal Electric Authority of Georgia | u.s. | 10,667,071 | 10,667,071 |  |  | 1.057\% | 1.057\% | 0.000\% | 0.000\% | 0.237\% | 0.237\% | 0.000\% | 0.000\% | 0.269\% |
| 2013 | SERC | 1316 | N.C. Electric Membership Corp. | u.s. | 12,300,719 | 12,300,719 |  |  | 1.219\% | 1.219\% | 0.000\% | 0.000\% | 0.274\% | 0.274\% | 0.000\% | 0.000\% | 0.311\% |
| 2013 | Sterc | 1588 | Northeast Louisiana Power Cooperative, Inc. | u.s. | 315,718 | 315,718 |  |  | 0.031\% | 0.031\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.008\% |
| 2013 | serc | 1574 | Northern Virginia Electric Cooperative | u.s. | 4,009,193 | 4,009,193 |  |  | 0.397\% | 0.397\% | 0.000\% | 0.000\% | 0.089\% | 0.089\% | 0.000\% | 0.000\% | 0.101\% |
| 2013 | serc | 1319 | Old Dominion Electric Cooperative | u.s. | 5,883,258 | 5,883,258 |  |  | 0.583\% | 0.583\% | 0.000\% | 0.000\% | 0.131\% | 0.131\% | 0.000\% | 0.000\% | 0.149\% |
| 2013 | Sterc | 1618 | Osceola (Arkansas) Municipal Light and Power | u.s. | 185,449 | 185,449 |  |  | 0.018\% | 0.018\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.005\% |
| 2013 | Sterc | 1320 | Owensboro (KY) Municipal Utilities | u.s. | 902,070 | 902,070 |  |  | 0.089\% | 0.089\% | 0.000\% | 0.000\% | 0.020\% | 0.020\% | 0.000\% | 0.000\% | 0.023\% |
| 2013 | SERC | 1322 | Piedmont EMC in Duke and Progress Areas | u.s. | 507,378 | 507,378 |  |  | 0.050\% | 0.050\% | 0.000\% | 0.000\% | 0.011\% | 0.011\% | 0.000\% | 0.000\% | 0.013\% |
| 2013 | SERC | 1323 | Piedmont Municipal Power Agency (PMPA) | u.s. | 2,226,981 | 2,226,981 |  |  | 0.221\% | 0.221\% | 0.000\% | 0.000\% | 0.050\% | 0.050\% | 0.000\% | 0.000\% | 0.056\% |
| 2013 | serc | 1589 | Pointe Coupee Electric Memb. Corp. | u.s. | 271,727 | 271,727 |  |  | 0.027\% | 0.027\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | serc | 1266 | PowerSouth Energy | u.s. | 8,394,912 | 8,394,912 |  |  | 0.832\% | 0.832\% | 0.000\% | 0.000\% | 0.187\% | 0.187\% | 0.000\% | 0.000\% | 0.212\% |
| 2013 | serc | 1330 | Prairie Power, Inc. | u.s. | 1,587,723 | 1,587,723 |  |  | 0.157\% | 0.157\% | 0.000\% | 0.000\% | 0.035\% | 0.035\% | 0.000\% | 0.000\% | 0.040\% |
| 2013 | serc | 1324 | Progress Energy Carolinas | u.s. | 45,597,000 | 45,597,000 |  |  | 4.519\% | 4.519\% | 0.000\% | 0.000\% | 1.014\% | 1.014\% | 0.000\% | 0.000\% | 1.151\% |
| 2013 | SERC | 1325 | Rutherford EMC | u.s. | 1,330,129 | 1,330,129 |  |  | 0.132\% | 0.132\% | 0.000\% | 0.000\% | 0.030\% | 0.030\% | 0.000\% | 0.000\% | 0.034\% |
| 2013 | SERC | 1631 | Sam Rayburn G\&T Electric Cooperative Inc. | u.s. | 1,789,204 | 1,789,204 |  |  | 0.177\% | 0.177\% | 0.000\% | 0.000\% | 0.040\% | 0.040\% | 0.000\% | 0.000\% | 0.045\% |
| 2013 | SERC | 1326 | South Carolina Electric \& Gas Company | u.s. | 22,493,515 | 22,493,515 |  |  | 2.229\% | 2.229\% | 0.000\% | 0.000\% | 0.500\% | 0.500\% | 0.000\% | 0.000\% | 0.568\% |
| 2013 | SERC | 1327 | South Carolina Public Service Authority | u.s. | 11,134,017 | 11,134,017 |  |  | 1.103\% | 1.103\% | 0.000\% | 0.000\% | 0.248\% | 0.248\% | 0.000\% | 0.000\% | 0.281\% |
| 2013 | SERC | 1590 | South Louisiana Electric Cooperative Association | u.s. | 631,016 | 631,016 |  |  | 0.063\% | 0.063\% | 0.000\% | 0.000\% | 0.014\% | 0.014\% | 0.000\% | 0.000\% | 0.016\% |
| 2013 | SERC | 1328 | South Mississippi Electric Power Association | u.s. | 10,355,847 | 10,355,847 |  |  | 1.026\% | 1.026\% | 0.000\% | 0.000\% | 0.230\% | 0.230\% | 0.000\% | 0.000\% | 0.261\% |
| 2013 | SERC | 1329 | Southern Illinois Power Cooperative | u.s. | 1,547,015 | 1,547,015 |  |  | 0.153\% | 0.153\% | 0.000\% | 0.000\% | 0.034\% | 0.034\% | 0.000\% | 0.000\% | 0.039\% |
| 2013 | SERC | 1591 | Southwest Louisiana Electric Membership Corporation | u.s. | 2,657,052 | 2,657,052 |  |  | 0.263\% | 0.263\% | 0.000\% | 0.000\% | 0.059\% | 0.059\% | 0.000\% | 0.000\% | 0.067\% |
| 2013 | SERC | 1619 | Southwestern Electric Cooperative, Inc. | u.s. | 425,036 | 425,036 |  |  | 0.042\% | 0.042\% | 0.000\% | 0.000\% | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.011\% |
| 2013 | SERC | 1331 | Tennessee Valley Authority | u.s. | 161,755,649 | 161,755,649 |  |  | 16.030\% | 16.030\% | 0.000\% | 0.000\% | 3.599\% | 3.599\% | 0.000\% | 0.000\% | 4.083\% |


| Data <br> Year | Regional Entity | ID | Entity | Country | Total NEL (MWh) | U.S. NEL | Canada NEL | Mexico NEL | $\begin{gathered} \text { \% of RE } \\ \text { total } \end{gathered}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | $\begin{array}{\|c} \text { Mexico } \\ \text { Total } \end{array}$ | $\begin{array}{r} \% \text { of ERO } \\ \text { Total } \end{array}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | $\begin{array}{r} \text { Mexico } \\ \text { Total } \end{array}$ | $\begin{gathered} \text { \% of ERO- } \\ \text { US Only } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2013 | SERC | 1632 | Tex-La Electric Cooperative of Texas, Inc | u.s. | 208,435 | 208,435 |  |  | 0.021\% | 0.021\% | 0.000\% | 0.000\% | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.005\% |
| 2013 | SERC | 1332 | Tombigbee Electric Cooperative Inc. | u.s. | 132,281 | 132,281 |  |  | 0.013\% | 0.013\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | SERC | 1594 | Town of Sharpsburg, N.C. | u.s. | 19,830 | 19,830 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.00\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | SERC | 1595 | Town of Stantonsburg, N. .C. JRo | u.s. | 77,300 | 77,300 |  |  | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | serc | 1333 | Town of Waynesville NC | u.s. | 91,000 | 91,000 |  |  | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | serc | 1334 | Town of Winnsboro SC | u.s. | 55,421 | 55,421 |  |  | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | SERC | 1335 | Town of Winterville NC | u.s. | 54,348 | 54,348 |  |  | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | SERC | 1597 | Washington-St.Tammany Electric Cooperative, Inc. | u.s. | 1,086,428 | 1,086,428 |  |  | 0.108\% | 0.108\% | 0.000\% | 0.000\% | 0.024\% | 0.024\% | 0.000\% | 0.000\% | 0.027\% |
|  |  |  | TOTAL SERC |  | 1,009,060,489 | 1,009,060,489 |  |  | 100.000\% | 100.000\% | 0.000\% | 0.000\% | 22.449\% | 22.449\% | 0.000\% | 0.000\% | 25.472\% |
| 2013 | SPP | 1246 | American Electric Power | u.s. | 36,992,312 | 36,992,312 |  |  | 17.074\% | 17.074\% | 0.000\% | 0.000\% | 0.823\% | 0.823\% | 0.000\% | 0.000\% | 0.934\% |
| 2013 | SPP | 1435 | Arkansas Electric Cooperative Corporation (AEP) | u.s. | 5,133,268 | 5,133,268 |  |  | 2.369\% | 2.369\% | 0.000\% | 0.000\% | 0.114\% | 0.114\% | 0.000\% | 0.000\% | 0.130\% |
| 2013 | SPP | 1247 | Board of Public Utilities (Kansas City KS) | u.s. | 2,365,471 | 2,365,471 |  |  | 1.092\% | 1.092\% | 0.000\% | 0.000\% | 0.053\% | 0.053\% | 0.000\% | 0.000\% | 0.060\% |
| 2013 | SPP | 1620 | Board of Public Utilities, City of McPherson, Kansas | u.s. | 941,518 | 941,518 |  |  | 0.435\% | 0.435\% | 0.000\% | 0.000\% | 0.021\% | 0.021\% | 0.000\% | 0.000\% | 0.024\% |
| 2013 | SPP | 1647 | Carthage City Water \& Light | u.s. | 322,822 | 322,822 |  |  | 0.149\% | 0.149\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.008\% |
| 2013 | SPP | 1469 | Central Valley Electric Cooperative | u.s. | 848,423 | 848,423 |  |  | 0.392\% | 0.392\% | 0.000\% | 0.000\% | 0.019\% | 0.019\% | 0.000\% | 0.000\% | 0.021\% |
| 2013 | SPP | 1556 | City of Bentonville | u.s. | 646,929 | 646,929 |  |  | 0.299\% | 0.299\% | 0.000\% | 0.000\% | 0.014\% | 0.014\% | 0.000\% | 0.000\% | 0.016\% |
| 2013 | SPP | 1557 | City of Clarksdale, Mississippi | u.s. | 163,899 | 163,899 |  |  | 0.076\% | 0.076\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | SPP | 1558 | Hope Water \& Light (HWL) | u.s. | 299,830 | 299,830 |  |  | 0.138\% | 0.138\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.008\% |
| 2013 | SPP | 1559 | City of Minden | u.s. | 161,831 | 161,831 |  |  | 0.075\% | 0.075\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | SPP | 1635 | The City of Osage City | u.s. | 36,227 | 36,227 |  |  | 0.017\% | 0.017\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | SPP | 1636 | City of Prescott | u.s. | 88,179 | 88,179 |  |  | 0.041\% | 0.041\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | SPP | 1248 | Independence Power \& Light (Independence, MO) | u.s. | 1,070,657 | 1,070,657 |  |  | 0.494\% | 0.494\% | 0.000\% | 0.000\% | 0.024\% | 0.024\% | 0.000\% | 0.000\% | 0.027\% |
| 2013 | SPP | 1436 | City Utilities of Springfield, MO | u.s. | 3,183,351 | 3,183,351 |  |  | 1.469\% | 1.469\% | 0.000\% | 0.000\% | 0.071\% | 0.071\% | 0.000\% | 0.000\% | 0.080\% |
| 2013 | SPP | 1249 | Cleco Power LLC | u.s. | 11,826,507 | 11,826,507 |  |  | 5.459\% | 5.459\% | 0.000\% | 0.000\% | 0.263\% | 0.263\% | 0.000\% | 0.000\% | 0.299\% |
| 2013 | SPP | 1437 | East Texas Electric Cooop, Inc. | u.s. | 419,870 | 419,870 |  |  | 0.194\% | 0.194\% | 0.000\% | 0.000\% | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.011\% |
| 2013 | SPP | 1250 | The Empire District Electric Company | u.s. | 5,314,638 | 5,314,638 |  |  | 2.453\% | 2.453\% | 0.000\% | 0.000\% | 0.118\% | 0.118\% | 0.000\% | 0.000\% | 0.134\% |
| 2013 | SPP | 1470 | Farmers' Electric Coop | u.s. | 441,138 | 441,138 |  |  | 0.204\% | 0.204\% | 0.000\% | 0.000\% | 0.010\% | 0.010\% | 0.000\% | 0.000\% | 0.011\% |
| 2013 | SPP | 1438 | Golden Spread Electric Coop | u.s. | 5,758,253 | 5,758,253 |  |  | 2.658\% | 2.658\% | 0.000\% | 0.000\% | 0.128\% | 0.128\% | 0.000\% | 0.000\% | 0.145\% |
| 2013 | SPP | 1251 | Grand River Dam Authority | u.s. | 4,887,388 | 4,887,388 |  |  | 2.256\% | 2.256\% | 0.000\% | 0.000\% | 0.109\% | 0.109\% | 0.000\% | 0.000\% | 0.123\% |
| 2013 | SPP | 1648 | Jonesboro City Water \& Light | u.s. | 1,319,614 | 1,319,614 |  |  | 0.609\% | 0.609\% | 0.000\% | 0.000\% | 0.029\% | 0.029\% | 0.000\% | 0.000\% | 0.033\% |
| 2013 | SPP | 1252 | Kansas City Power \& Light (KCPL) | u.s. | 15,799,704 | 15,799,704 |  |  | 7.293\% | 7.293\% | 0.000\% | 0.000\% | 0.352\% | 0.352\% | 0.000\% | 0.000\% | 0.399\% |
| 2013 | SPP | 1439 | Kansas Electric Power Coop., Inc | u.s. | 2,230,757 | 2,230,757 |  |  | 1.030\% | 1.030\% | 0.000\% | 0.000\% | 0.050\% | 0.050\% | 0.000\% | 0.000\% | 0.056\% |
| 2013 | SPP | 1440 | Kansas Municipal Energy Agency (KCPL) | u.s. | 402,837 | 402,837 |  |  | 0.186\% | 0.186\% | 0.000\% | 0.000\% | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.010\% |
| 2013 | SPP | 1637 | Kansas Power Pool | u.s. | 1,535,998 | 1,535,998 |  |  | 0.709\% | 0.709\% | 0.000\% | 0.000\% | 0.034\% | 0.034\% | 0.000\% | 0.000\% | 0.039\% |
| 2013 | SPP | 1560 | Kaw Valley Electric Cooperative, Inc. | u.s. | 163,613 | 163,613 |  |  | 0.076\% | 0.076\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | SPP | 1649 | Kennett Board of Public Works | u.s. | 170,169 | 170,169 |  |  | 0.079\% | 0.079\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | SPP | 1598 | KCP\&L GMOC (Greater Missouri Operations Company) | u.s. | 8,821,370 | 8,821,370 |  |  | 4.072\% | 4.072\% | 0.000\% | 0.000\% | 0.196\% | 0.196\% | 0.000\% | 0.000\% | 0.223\% |
| 2013 | SPP | 1471 | Lafayette Utilities System | u.s. | 2,100,204 | 2,100,204 |  |  | 0.969\% | 0.969\% | 0.000\% | 0.000\% | 0.047\% | 0.047\% | 0.000\% | 0.000\% | 0.053\% |
| 2013 | SPP | 1472 | Lea County Electric Coop | u.s. | 1,295,858 | 1,295,858 |  |  | 0.598\% | 0.598\% | 0.000\% | 0.000\% | 0.029\% | 0.029\% | 0.000\% | 0.000\% | 0.033\% |
| 2013 | SPP | 1253 | Louisiana Energy \& Power Authority (LEPA) | u.s. | 1,027,670 | 1,027,670 |  |  | 0.474\% | 0.474\% | 0.000\% | 0.000\% | 0.023\% | 0.023\% | 0.000\% | 0.000\% | 0.026\% |
| 2013 | SPP | 1650 | Malden Board of Public Works | u.s. | 51,374 | 51,374 |  |  | 0.024\% | 0.024\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | SPP | 1441 | Midwest Energy Inc. | u.s. | 1,847,501 | 1,847,501 |  |  | 0.853\% | 0.853\% | 0.000\% | 0.000\% | 0.041\% | 0.041\% | 0.000\% | 0.000\% | 0.047\% |
| 2013 | SPP | 1443 | Missouri Joint Municipal Electric Utility Commission | u.s. | 2,593,744 | 2,593,744 |  |  | 1.197\% | 1.197\% | 0.000\% | 0.000\% | 0.058\% | 0.058\% | 0.000\% | 0.000\% | 0.065\% |
| 2013 | SPP | 1638 | Nemaha Marshall Electric Cooperative (NMEC) | u.s. | 56,433 | 56,433 |  |  | 0.026\% | 0.026\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | SPP | 1442 | Northeast Texas Electric Cooperative, Inc. | u.s. | 3,296,126 | 3,296,126 |  |  | 1.521\% | 1.521\% | 0.000\% | 0.000\% | 0.073\% | 0.073\% | 0.000\% | 0.000\% | 0.083\% |
| 2013 | SPP | 1255 | Oklahoma Gas and Electric Co. | u.s. | 28,869,838 | 28,869,838 |  |  | 13.325\% | 13.325\% | 0.000\% | 0.000\% | 0.642\% | 0.642\% | 0.000\% | 0.000\% | 0.729\% |
| 2013 | SPP | 1444 | Oklahoma Municipal Power Auth | u.s. | 2,743,902 | 2,743,902 |  |  | 1.266\% | 1.266\% | 0.000\% | 0.000\% | 0.061\% | 0.061\% | 0.000\% | 0.000\% | 0.069\% |
| 2013 | SPP | 1639 | OzMo Ozark Missouri, West Plains MO | u.s. | 212,558 | 212,558 |  |  | 0.098\% | 0.098\% | 0.000\% | 0.000\% | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.005\% |
| 2013 | SPP | 1651 | Paragould Light, Water \& Cable | u.s. | 595,470 | 595,470 |  |  | 0.275\% | 0.275\% | 0.000\% | 0.000\% | 0.013\% | 0.013\% | 0.000\% | 0.000\% | 0.015\% |
| 2013 | SPP | 1652 | Piggott Municipal Light, Water \& Sewer | u.s. | 41,912 | 41,912 |  |  | 0.019\% | 0.019\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | SPP | 1653 | Poplar Bluff Municipal Utilities | u.s. | 390,226 | 390,226 |  |  | 0.180\% | 0.180\% | 0.000\% | 0.000\% | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.010\% |
| 2013 | SPP | 1561 | Public Service Commission of Yazoo City of Mississippi | u.s. | 124,607 | 124,607 |  |  | 0.058\% | 0.058\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | SPP | 1473 | Roosevelt County Electric Coop | u.s. | 194,865 | 194,865 |  |  | 0.090\% | 0.090\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.005\% |
| 2013 | SPP | 1654 | Sikeston Board of Municipal Utilities | u.s. | 406,682 | 406,682 |  |  | 0.188\% | 0.188\% | 0.000\% | 0.000\% | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.010\% |
| 2013 | SPP | 1257 | Southwestern Public Service Co. (SPS-XCEL) | u.s. | 20,275,550 | 20,275,550 |  |  | 9.358\% | 9.358\% | 0.000\% | 0.000\% | 0.451\% | 0.451\% | 0.000\% | 0.000\% | 0.512\% |
| 2013 | SPP | 1256 | Sunflower Electric Power Cooperative | u.s. | 5,261,278 | 5,261,278 |  |  | 2.428\% | 2.428\% | 0.000\% | 0.000\% | 0.117\% | 0.117\% | 0.000\% | 0.000\% | 0.133\% |
| 2013 | SPP | 1445 | Tex - La Electric Cooperative of Texas | u.s. | 518,562 | 518,562 |  |  | 0.239\% | 0.239\% | 0.000\% | 0.000\% | 0.012\% | 0.012\% | 0.000\% | 0.000\% | 0.013\% |


| $\begin{aligned} & \text { Data } \\ & \text { Year } \\ & \hline \end{aligned}$ | Regional Entity | ID | Entity | Country | Total NEL (MWh) | U.S. NEL | Canada NEL | Mexico NEL | $\begin{gathered} \% \text { of RE } \\ \text { total } \end{gathered}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \\ \hline \end{array}$ | $\begin{array}{r} \text { Mexico } \\ \text { Total } \\ \hline \end{array}$ | $\begin{array}{r} \text { \% of ERO } \\ \text { Total } \end{array}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \\ \hline \end{array}$ | $\begin{array}{r} \text { Mexico } \\ \text { Total } \end{array}$ | $\begin{gathered} \text { \% of ERO- } \\ \text { US Only } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2013 | SPP | 1475 | Tri County Electric Coop | u.s. | 408,044 | 408,044 |  |  | 0.188\% | 0.188\% | 0.000\% | 0.000\% | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.010\% |
| 2013 | SPP | 1260 | Westar Energy, Inc. | u.s. | 21,518,819 | 21,518,819 |  |  | 9.932\% | 9.932\% | 0.000\% | 0.000\% | 0.479\% | 0.479\% | 0.000\% | 0.000\% | 0.543\% |
| 2013 | SPP | 1259 | Western Farmers Electric Cooperative | u.s. | 8,593,524 | 8,593,524 |  |  | 3.966\% | 3.966\% | 0.000\% | 0.000\% | 0.191\% | 0.191\% | 0.000\% | 0.000\% | 0.217\% |
| 2013 | SPP | 1501 | West Texas Municipal Power Agency | u.S. | 2,884,669 | 2,884,669 |  |  | 1.331\% | 1.331\% | 0.000\% | 0.000\% | 0.064\% | 0.064\% | 0.000\% | 0.000\% | 0.073\% |
|  |  |  | TOTAL SPP |  | 216,655,989 | 216,655,989 | - |  | 100.000\% | 100.000\% | 0.000\% | 0.000\% | 4.820\% | 4.820\% | 0.000\% | 0.000\% | 5.469\% |
| 2011 | TRE | 1019 | ercot | u.s. | 332,698,379 | 332,698,379 |  |  | 100.000\% | 100.000\% | 0.000\% | 0.000\% | 7.402\% | 7.402\% | 0.000\% | 0.000\% | 8.398\% |
|  |  |  |  |  | 332,698,379 | 332,698,379 |  |  | 100.000\% | 100.000\% | 0.000\% | 0.000\% | 7.402\% | 7.402\% | 0.000\% | 0.000\% | 8.398\% |
| 2013 | wecc |  | Alberta Electric System Operator | Canada | 60,582,433 |  | 60,582,433 |  | 6.975\% | 0.000\% | 6.975\% | 0.000\% | 1.348\% | 0.000\% | 1.348\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | British Columbia Hydro \& Power Authority | Canada | 59,004,439 |  | 59,004,439 |  | 6.793\% | 0.000\% | 6.793\% | 0.000\% | 1.313\% | 0.000\% | 1.313\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Comision Federal de Electricidad | Mexico | 11,614,895 |  |  | 11,614,895 | 1.337\% | 0.000\% | 0.000\% | 1.337\% | 0.258\% | 0.000\% | 0.000\% | 0.258\% | 0.000\% |
| 2013 | WECC |  | Aguila Irrigation District - APS | u.s. | 31,010 | 31,010 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Aha Macav Power Service | u.s. | 25,289 | 25,289 |  |  | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Ajo Improvement District | u.s. | 13,734 | 13,734 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Ak-Chin | u.s. | 38,775 | 38,775 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Alcoa Inc | u.s. | 3,458,150 | 3,458,150 |  |  | 0.398\% | 0.398\% | 0.000\% | 0.000\% | 0.077\% | 0.077\% | 0.000\% | 0.000\% | 0.087\% |
| 2013 | WECC |  | Arizona Public Service Company | u.s. | 29,805,265 | 29,805,265 |  |  | 3.432\% | 3.432\% | 0.000\% | 0.000\% | 0.663\% | 0.663\% | 0.000\% | 0.000\% | 0.752\% |
| 2013 | WECC |  | Arkansas River Power Authority (ARPA) | u.s. | 235,150 | 235,150 |  |  | 0.027\% | 0.027\% | 0.000\% | 0.000\% | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.006\% |
| 2013 | WECC |  | Avista Corporation | u.s. | 59,292 | 59,292 |  |  | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Avista Corporation | u.s. | 9,576,506 | 9,576,506 |  |  | 1.103\% | 1.103\% | 0.000\% | 0.000\% | 0.213\% | 0.213\% | 0.000\% | 0.000\% | 0.242\% |
| 2013 | WECC |  | Barrick Goldstrike Mines Inc. | u.s. | 1,179,964 | 1,179,964 |  |  | 0.136\% | 0.136\% | 0.000\% | 0.000\% | 0.026\% | 0.026\% | 0.000\% | 0.000\% | 0.030\% |
| 2013 | WECC |  | Basin Electric Power Cooperative | u.s. | 59,554 | 59,554 |  |  | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | WECC |  | Basin Electric Power Cooperative | u.s. | 3,056,832 | 3,056,832 |  |  | 0.352\% | 0.352\% | 0.000\% | 0.000\% | 0.068\% | 0.068\% | 0.000\% | 0.000\% | 0.077\% |
| 2013 | WECC |  | Benton REA | u.s. | 551,563 | 551,563 |  |  | 0.064\% | 0.064\% | 0.000\% | 0.000\% | 0.012\% | 0.012\% | 0.000\% | 0.000\% | 0.014\% |
| 2013 | WECC |  | Big Bend Electric Cooperative, Inc. | u.s. | 139,523 | 139,523 |  |  | 0.016\% | 0.016\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | WECC |  | Big Bend Electric Cooperative, Inc. | u.s. | 360,754 | 360,754 |  |  | 0.042\% | 0.042\% | 0.000\% | 0.000\% | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.009\% |
| 2013 | WECC |  | Blachly-Lane Electric Cooperative | u.s. | 173,759 | 173,759 |  |  | 0.020\% | 0.020\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | WECC |  | Black Hills Power | u.s. | 1,927,008 | 1,927,008 |  |  | 0.222\% | 0.222\% | 0.000\% | 0.000\% | 0.043\% | 0.043\% | 0.000\% | 0.000\% | 0.049\% |
| 2013 | WECC |  | Black Hills Power/Cheyenne Light Fuel \& Power | u.s. | 2,953,785 | 2,953,785 |  |  | 0.340\% | 0.340\% | 0.000\% | 0.000\% | 0.066\% | 0.066\% | 0.000\% | 0.000\% | 0.075\% |
| 2013 | WECC |  | Black Hills State University South Dakota | U.S. | 19,749 | 19,749 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Bonneville Power Administration | U.S. | 6,817 | 6,817 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Bonneville Power Administration | U.S. | 13,511 | 13,511 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Bonneville Power Administration | u.s. | 779,199 | 779,199 |  |  | 0.090\% | 0.090\% | 0.000\% | 0.000\% | 0.017\% | 0.017\% | 0.000\% | 0.000\% | 0.020\% |
| 2013 | WECC |  | Bonneville Power Administration | U.S. | 1,864,618 | 1,864,618 |  |  | 0.215\% | 0.215\% | 0.000\% | 0.000\% | 0.041\% | 0.041\% | 0.000\% | 0.000\% | 0.047\% |
| 2013 | WECC |  | Bonneville Power Administration | u.s. | 3,834,849 | 3,834,849 |  |  | 0.442\% | 0.442\% | 0.000\% | 0.000\% | 0.085\% | 0.085\% | 0.000\% | 0.000\% | 0.097\% |
| 2013 | WECC |  | BPA - Big Bend/Schrag Load | u.s. | 37,344 | 37,344 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | BPA - Kittitas Load | u.s. | 7,375 | 7,375 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | BPA - USBR Load | u.s. | 131,805 | 131,805 |  |  | 0.015\% | 0.015\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | WECC |  | Buckeye Water Conservation and Drainage District - APS | u.s. | 19,821 | 19,821 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Bureau of Reclamation (Desalter) - c/o DSW EMMO | u.s. | 766 | 766 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | wecc |  | Bureau of Reclamation (Wellfield) - c/o DSW EMMO | u.s. | 6,499 | 6,499 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Burlington | u.s. | 36,727 | 36,727 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | California Independent System Operator | u.s. | 232,339,960 | 232,339,960 |  |  | 26.750\% | 26.750\% | 0.000\% | 0.000\% | 5.169\% | 5.169\% | 0.000\% | 0.000\% | 5.865\% |
| 2013 | WECC |  | Canby Public Utility Board | u.s. | 181,172 | 181,172 |  |  | 0.021\% | 0.021\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.005\% |
| 2013 | WECC |  | Central Arizona Water Conservation District | u.s. | 2,632,527 | 2,632,527 |  |  | 0.303\% | 0.303\% | 0.000\% | 0.000\% | 0.059\% | 0.059\% | 0.000\% | 0.000\% | 0.066\% |
| 2013 | WECC |  | Central Electric Cooperative | u.s. | 609,107 | 609,107 |  |  | 0.070\% | 0.070\% | 0.000\% | 0.000\% | 0.014\% | 0.014\% | 0.000\% | 0.000\% | 0.015\% |
| 2013 | WECC |  | Central Lincoln PUD | u.s. | 1,350,692 | 1,350,692 |  |  | 0.156\% | 0.156\% | 0.000\% | 0.000\% | 0.030\% | 0.030\% | 0.000\% | 0.000\% | 0.034\% |
| 2013 | WECC |  | Central Montana Electric Power Cooperative | u.s. | 63,810 | 63,810 |  |  | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | WECC |  | Central Montana Electric Power Cooperative | u.s. | 317,843 | 317,843 |  |  | 0.037\% | 0.037\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.008\% |
| 2013 | WECC |  | City of Aztec Electric Dept | u.s. | 39,751 | 39,751 |  |  | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | City of Bandon | u.s. | 67,365 | 67,365 |  |  | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | WECC |  | City of Blaine | u.s. | 78,248 | 78,248 |  |  | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | WECC |  | City of Bonners Ferry | u.s. | 72,517 | 72,517 |  |  | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | WECC |  | City of Cascade Locks | u.s. | 19,641 | 19,641 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | City of Centralia | U.S. | 270,593 | 270,593 |  |  | 0.031\% | 0.031\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | WECC |  | City of Cheney | U.S. | 149,356 | 149,356 |  |  | 0.017\% | 0.017\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | WECC |  | City of Chewelah | U.S. | 23,809 | 23,809 |  |  | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |


| Data <br> Year | Regional Entity | ID | Entity | Country | Total NEL (MWh) | U.S. NEL | Canada NEL | Mexico NEL | $\begin{gathered} \text { \% of RE } \\ \text { total } \end{gathered}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | Mexico Total | $\begin{gathered} \% \text { of ERO } \\ \text { Total } \end{gathered}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | Mexico Total | $\begin{gathered} \text { \% of ERO- } \\ \text { US Only } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2013 | wecc |  | City of Drain | u.s. | 16,847 | 16,847 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | City of Ellensburg | u.s. | 207,748 | 207,748 |  |  | 0.024\% | 0.024\% | 0.000\% | 0.000\% | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.005\% |
| 2013 | WECC |  | City of Fallon | u.s. | 37,292 | 37,292 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | wecc |  | City of Farmington | u.s. | 1,025,393 | 1,025,393 |  |  | 0.118\% | 0.118\% | 0.000\% | 0.000\% | 0.023\% | 0.023\% | 0.000\% | 0.000\% | 0.026\% |
| 2013 | wecc |  | City of Forest Grove | u.s. | 256,440 | 256,440 |  |  | 0.030\% | 0.030\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.006\% |
| 2013 | wecc |  | City of Gallup | u.s. | 189,880 | 189,880 |  |  | 0.022\% | 0.022\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.005\% |
| 2013 | WECC |  | City of Henderson | u.s. | 42,834 | 42,834 |  |  | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | City of Hermiston, DBA Hermiston Energy Services | u.s. | 111,146 | 111,146 |  |  | 0.013\% | 0.013\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | WECC |  | City of Las Vegas | u.s. | 41,831 | 41,831 |  |  | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | City of McCleary | u.s. | 31,415 | 31,415 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | wecc |  | City of McMinnville | u.s. | 770,559 | 770,559 |  |  | 0.089\% | 0.089\% | 0.000\% | 0.000\% | 0.017\% | 0.017\% | 0.000\% | 0.000\% | 0.019\% |
| 2013 | wecc |  | City of Mesa | u.s. | 261,581 | 261,581 |  |  | 0.030\% | 0.030\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | WECC |  | City of Milton | u.s. | 60,532 | 60,532 |  |  | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | WECC |  | City of Milton-Freewater | u.s. | 113,514 | 113,514 |  |  | 0.013\% | 0.013\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | WECC |  | City of Monmouth | u.s. | 74,430 | 74,430 |  |  | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | WECC |  | City of Needles | u.s. | 30,990 | 30,990 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | City of North Las Vegas | u.s. | 4,639 | 4,639 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | City of Page | u.s. | 92,251 | 92,251 |  |  | 0.011\% | 0.011\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | wecc |  | City of Plummer | u.s. | 35,994 | 35,994 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | wecc |  | City of Port Angeles | u.s. | 732,324 | 732,324 |  |  | 0.084\% | 0.084\% | 0.000\% | 0.000\% | 0.016\% | 0.016\% | 0.000\% | 0.000\% | 0.018\% |
| 2013 | wecc |  | City of Redding | u.s. | 799,829 | 799,829 |  |  | 0.092\% | 0.092\% | 0.000\% | 0.000\% | 0.018\% | 0.018\% | 0.000\% | 0.000\% | 0.020\% |
| 2013 | WECC |  | City of Richland | u.s. | 894,506 | 894,506 |  |  | 0.103\% | 0.103\% | 0.000\% | 0.000\% | 0.020\% | 0.020\% | 0.000\% | 0.000\% | 0.023\% |
| 2013 | WECC |  | City of Roseville | u.s. | 1,235,079 | 1,235,079 |  |  | 0.142\% | 0.142\% | 0.000\% | 0.000\% | 0.027\% | 0.027\% | 0.000\% | 0.000\% | 0.031\% |
| 2013 | WECC |  | City of Shasta Lake | u.s. | 193,187 | 193,187 |  |  | 0.022\% | 0.022\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.005\% |
| 2013 | WECC |  | City of Sumas | u.s. | 31,016 | 31,016 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | City of Tacoma DBA Tacoma Power | u.s. | 310 | 310 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | City of Tacoma DBA Tacoma Power | u.s. | 5,010,435 | 5,010,435 |  |  | 0.577\% | 0.577\% | 0.000\% | 0.000\% | 0.111\% | 0.111\% | 0.000\% | 0.000\% | 0.126\% |
| 2013 | WECC |  | City of Troy | u.s. | 17,559 | 17,559 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | City of Williams | u.s. | 39,158 | 39,158 |  |  | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Clark County Water Resources | u.s. | 77,436 | 77,436 |  |  | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | WECC |  | Clark Public Utilities | u.s. | 4,487,612 | 4,487,612 |  |  | 0.517\% | 0.517\% | 0.000\% | 0.000\% | 0.100\% | 0.100\% | 0.000\% | 0.000\% | 0.113\% |
| 2013 | wecc |  | Clatskanie Pud | u.s. | 943,244 | 943,244 |  |  | 0.109\% | 0.109\% | 0.000\% | 0.000\% | 0.021\% | 0.021\% | 0.000\% | 0.000\% | 0.024\% |
| 2013 | wecc |  | Clearwater Cooperative, Inc | u.s. | 39,974 | 39,974 |  |  | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | wecc |  | Clearwater Cooperative, Inc | u.s. | 170,714 | 170,714 |  |  | 0.020\% | 0.020\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | wecc |  | Colorado River Commission of Nevada | u.s. | 872,387 | 872,387 |  |  | 0.100\% | 0.100\% | 0.000\% | 0.000\% | 0.019\% | 0.019\% | 0.000\% | 0.000\% | 0.022\% |
| 2013 | wecc |  | Colorado Springs Utilities | u.s. | 61,174 | 61,174 |  |  | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | wecc |  | Colorado Springs Utilities | u.s. | 4,662,507 | 4,662,507 |  |  | 0.537\% | 0.537\% | 0.000\% | 0.000\% | 0.104\% | 0.104\% | 0.000\% | 0.000\% | 0.118\% |
| 2013 | wecc |  | Columbia Basin Electric Cooperative, Inc. | u.s. | 113,365 | 113,365 |  |  | 0.013\% | 0.013\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | WECC |  | Columbia Falls Aluminum Company | u.s. | 4,579 | 4,579 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.00\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Columbia Power Cooperative Association | u.s. | 22,379 | 22,379 |  |  | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.000\% | 0.00\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Columbia River PUD | u.s. | 171,325 | 171,325 |  |  | 0.020\% | 0.020\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | WECC |  | Columbia River PUD | u.s. | 311,215 | 311,215 |  |  | 0.036\% | 0.036\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.008\% |
| 2013 | wecc |  | Columbia Rural Electric Association (REA) | u.s. | 333,263 | 333,263 |  |  | 0.038\% | 0.038\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.008\% |
| 2013 | wecc |  | Consolidated Irrigation District No. 19 | u.s. | 6,224 | 6,224 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | wecc |  | Consumers Power, Inc. | u.s. | 430,981 | 430,981 |  |  | 0.050\% | 0.050\% | 0.000\% | 0.000\% | 0.010\% | 0.010\% | 0.000\% | 0.000\% | 0.011\% |
| 2013 | WECC |  | Coos-Curry Electric Cooperative, Inc | u.s. | 355,309 | 355,309 |  |  | 0.041\% | 0.041\% | 0.000\% | 0.000\% | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.009\% |
| 2013 | WECC |  | Deseret Generation \& Transmission Cooperative | u.s. | 144,583 | 144,583 |  |  | 0.017\% | 0.017\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | WECC |  | Douglas Electric Cooperative, Inc. | u.s. | 96,240 | 96,240 |  |  | 0.011\% | 0.011\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | wecc |  | Douglas Palisades / PUD No. 1 of DC | u.s. | 19,291 | 19,291 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.00\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | El Paso Electric Company | u.s. | 8,354,189 | 8,354,189 |  |  | 0.962\% | 0.962\% | 0.000\% | 0.000\% | 0.186\% | 0.186\% | 0.000\% | 0.000\% | 0.211\% |
| 2013 | wecc |  | Electrical District \#2 | u.s. | 179,643 | 179,643 |  |  | 0.021\% | 0.021\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.005\% |
| 2013 | WECC |  | Electrical District \#2-Coolidge Generating Station | u.s. | 9,195 | 9,195 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Electrical District No. 6 of Pinal County - APS | u.s. | 2,493 | 2,493 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Electrical District No. 7 of Maricopa County - APS | u.s. | 47,058 | 47,058 |  |  | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Electrical District No. 8 of Maricopa County - APS | u.s. | 276,912 | 276,912 |  |  | 0.032\% | 0.032\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | WECC |  | Electrical Districts 1 \& 3 | u.s. | 578,995 | 578,995 |  |  | 0.067\% | 0.067\% | 0.000\% | 0.000\% | 0.013\% | 0.013\% | 0.000\% | 0.000\% | 0.015\% |
| 2013 | WECC |  | Elmhurst Mutual Power \& Light Company | u.s. | 279,749 | 279,749 |  |  | 0.032\% | 0.032\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | WECC |  | Emerald PUD | u.s. | 518,509 | 518,509 |  |  | 0.060\% | 0.060\% | 0.000\% | 0.000\% | 0.012\% | 0.012\% | 0.000\% | 0.000\% | 0.013\% |


| Data <br> Year | Regional Entity | ID | Entity | Country | Total NEL (MWh) | U.S. NEL | Canada NEL | Mexico NEL | $\begin{gathered} \text { \% of RE } \\ \text { total } \end{gathered}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | Mexico Total | $\begin{gathered} \% \text { of ERO } \\ \text { Total } \end{gathered}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | Mexico Total | $\begin{gathered} \text { \% of ERO- } \\ \text { US Only } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2013 | WECC |  | Energy Northwest | u.s. | 36,570 | 36,570 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Eugene Water \& Electric Board | u.s. | 2,495,053 | 2,495,053 |  |  | 0.287\% | 0.287\% | 0.000\% | 0.000\% | 0.056\% | 0.056\% | 0.000\% | 0.000\% | 0.063\% |
| 2013 | wecc |  | Fall River Rural Electric Cooperative, Inc. | u.s. | 28 | 28 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Flathead Electric Cooperative, Inc | u.s. | 1,513,536 | 1,513,536 |  |  | 0.174\% | 0.174\% | 0.000\% | 0.000\% | 0.034\% | 0.034\% | 0.000\% | 0.000\% | 0.038\% |
| 2013 | wecc |  | Frederickson Power LP | u.s. | 3,437 | 3,437 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | wecc |  | Grand Valley Power | u.s. | 245,738 | 245,738 |  |  | 0.028\% | 0.028\% | 0.000\% | 0.000\% | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.006\% |
| 2013 | WECC |  | Harney Electric Cooperative, Inc. | u.s. | 90,674 | 90,674 |  |  | 0.010\% | 0.010\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | wecc |  | Harney Electric Cooperative, Inc. | u.s. | 98,753 | 98,753 |  |  | 0.011\% | 0.011\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | wecc |  | Harquahala Valley Power Districts - APS | u.s. | 79,882 | 79,282 |  |  | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | WECC |  | Hermiston Power LLC | u.s. | 1,953 | 1,953 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.00\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Holy Cross Energy | u.s. | 1,218,703 | 1,218,703 |  |  | 0.140\% | 0.140\% | 0.000\% | 0.000\% | 0.027\% | 0.027\% | 0.000\% | 0.000\% | 0.031\% |
| 2013 | WECC |  | Hood River Electric Cooperative | u.s. | 44,095 | 44,095 |  |  | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Idaho County Light and Power Cooperative Association, Inc. | u.s. | 59,313 | 59,313 |  |  | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Idaho Power Company | u.s. | 16,340,718 | 16,340,718 |  |  | 1.881\% | 1.881\% | 0.000\% | 0.000\% | 0.364\% | 0.364\% | 0.000\% | 0.000\% | 0.412\% |
| 2013 | WECC |  | Imperial Irrigation District | u.s. | 3,661,545 | 3,661,545 |  |  | 0.422\% | 0.422\% | 0.000\% | 0.000\% | 0.081\% | 0.081\% | 0.000\% | 0.000\% | 0.092\% |
| 2013 | WECC |  | Inland Power and Light Company | u.s. | 477,845 | 477,845 |  |  | 0.055\% | 0.055\% | 0.000\% | 0.000\% | 0.011\% | 0.011\% | 0.000\% | 0.000\% | 0.012\% |
| 2013 | WECC |  | Inland Power and Light Company | u.s. | 499,781 | 499,781 |  |  | 0.058\% | 0.058\% | 0.000\% | 0.000\% | 0.011\% | 0.011\% | 0.000\% | 0.000\% | 0.013\% |
| 2013 | WECC |  | Intermountain Rural Electric Association | u.s. | 2,153,915 | 2,153,915 |  |  | 0.248\% | 0.248\% | 0.000\% | 0.000\% | 0.048\% | 0.048\% | 0.000\% | 0.000\% | 0.054\% |
| 2013 | WECC |  | Kaiser Aluminum Fabricated Products LLC | u.s. | 311,536 | 311,536 |  |  | 0.036\% | 0.036\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.008\% |
| 2013 | WECC |  | Kootenai Electric Cooperative, Inc. | u.s. | 469,569 | 469,569 |  |  | 0.054\% | 0.054\% | 0.000\% | 0.000\% | 0.010\% | 0.010\% | 0.000\% | 0.000\% | 0.012\% |
| 2013 | WECC |  | Lakeview Light \& Power | u.s. | 274,245 | 274,245 |  |  | 0.032\% | 0.032\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | WECC |  | Lane Electric Cooperative, Inc. | u.s. | 230,340 | 230,340 |  |  | 0.027\% | 0.027\% | 0.000\% | 0.000\% | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.006\% |
| 2013 | WECC |  | Las Vegas Valley Water District | u.s. | 93,430 | 93,430 |  |  | 0.011\% | 0.011\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | WECC |  | Lincoln Electric Cooperative, Inc. | u.s. | 118,451 | 118,451 |  |  | 0.014\% | 0.014\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | WECC |  | Los Angeles Department of Water and Power | u.s. | 28,866,202 | 28,866,202 |  |  | 3.323\% | 3.323\% | 0.000\% | 0.000\% | 0.642\% | 0.642\% | 0.000\% | 0.000\% | 0.729\% |
| 2013 | WECC |  | Lost River Electric Cooperative, Inc. | u.s. | 22 | 22 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Lower Valley Energy, Inc. | u.s. | 87 | 87 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Maricopa County Municipal Water Conservation Dist No. 1-APS | u.s. | 52,365 | 52,365 |  |  | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | McMullen Valley Water Conservation \& Drainage District - APS | u.s. | 69,883 | 69,883 |  |  | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | WECC |  | Merced IIrigation District | u.s. | 470,352 | 470,352 |  |  | 0.054\% | 0.054\% | 0.000\% | 0.000\% | 0.010\% | 0.010\% | 0.000\% | 0.000\% | 0.012\% |
| 2013 | WECC |  | Midstate Electric Cooperative, Inc. | u.s. | 414,182 | 414,182 |  |  | 0.048\% | 0.048\% | 0.000\% | 0.000\% | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.010\% |
| 2013 | WECC |  | Mission Valley Power | u.s. | 413,525 | 413,525 |  |  | 0.048\% | 0.048\% | 0.000\% | 0.000\% | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.010\% |
| 2013 | WECC |  | Modern Electric Water Company | u.s. | 234,810 | 234,810 |  |  | 0.027\% | 0.027\% | 0.000\% | 0.000\% | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.006\% |
| 2013 | WECC |  | Modesto Irrigation District | u.s. | 2,577,631 | 2,577,631 |  |  | 0.297\% | 0.297\% | 0.000\% | 0.000\% | 0.057\% | 0.057\% | 0.000\% | 0.000\% | 0.065\% |
| 2013 | WECC |  | Montana-Dakota Utilities Co. | u.s. | 20,487 | 20,487 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | wecc |  | Mt. Wheeler Power | u.s. | 560,779 | 560,779 |  |  | 0.065\% | 0.065\% | 0.000\% | 0.000\% | 0.012\% | 0.012\% | 0.000\% | 0.000\% | 0.014\% |
| 2013 | wecc |  | Municipal Energy Agency of Nebraska | u.s. | 199,657 | 199,657 |  |  | 0.023\% | 0.023\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.005\% |
| 2013 | WECC |  | Municipal Energy Agency of Nebraska | u.s. | 669,387 | 669,387 |  |  | 0.077\% | 0.077\% | 0.000\% | 0.000\% | 0.015\% | 0.015\% | 0.000\% | 0.000\% | 0.017\% |
| 2013 | wecc |  | Navajo Agricultural Products Industry (NAPI) | u.s. | 1,093 | 1,093 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | wecc |  | Navajo Tribal Utility Authority | u.s. | 54,383 | 54,383 |  |  | 0.006\% | 0.06\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | wecc |  | Navajo Tribal Utility Authority | u.s. | 286,099 | 286,099 |  |  | 0.033\% | 0.033\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | wecc |  | Navopache Electric Cooperative, Inc. | u.s. | 370,656 | 370,656 |  |  | 0.043\% | 0.043\% | 0.000\% | 0.000\% | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.009\% |
| 2013 | WECC |  | Nebraska Public Power Marketing | u.s. | 5,842 | 5,842 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | wecc |  | Nespelem Valley Electric Cooperative, Inc. | u.s. | 58,413 | 58,413 |  |  | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Nevada Power Company dba NV Energy | u.s. | 26,587,371 | 26,587,371 |  |  | 3.061\% | 3.061\% | 0.000\% | 0.000\% | 0.592\% | 0.592\% | 0.000\% | 0.000\% | 0.671\% |
| 2013 | wecc |  | Noble Americas Energy Solutions, LLC | u.s. | 1,673,553 | 1,673,553 |  |  | 0.193\% | 0.193\% | 0.000\% | 0.000\% | 0.037\% | 0.037\% | 0.000\% | 0.000\% | 0.042\% |
| 2013 | wecc |  | Northern Lights, Inc. | u.s. | 36,440 | 36,440 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | wecc |  | Northern Lights, Inc. | u.s. | 262,743 | 262,743 |  |  | 0.030\% | 0.030\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | WECC |  | Northern Wasco County PUD | u.s. | 556,511 | 556,511 |  |  | 0.064\% | 0.064\% | 0.000\% | 0.000\% | 0.012\% | 0.012\% | 0.000\% | 0.000\% | 0.014\% |
| 2013 | WECC |  | NorthWestern Corp. dba NorthWestern Energy, LLC | u.s. | 241,233 | 241,233 |  |  | 0.028\% | 0.028\% | 0.000\% | 0.000\% | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.006\% |
| 2013 | WECC |  | NorthWestern Corp. dba NorthWestern Energy, LLC | u.s. | 9,167,768 | 9,167,768 |  |  | 1.056\% | 1.056\% | 0.000\% | 0.000\% | 0.204\% | 0.204\% | 0.000\% | 0.000\% | 0.231\% |
| 2013 | WECC |  | Ohop Mutual Light Company | u.s. | 86,807 | 86,807 |  |  | 0.010\% | 0.010\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | WECC |  | Orcas Power and Light Cooperative | u.s. | 217,914 | 217,914 |  |  | 0.025\% | 0.025\% | 0.000\% | 0.000\% | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.006\% |
| 2013 | WECC |  | Oregon Trail Electric Consumers Cooperative, Inc. | u.s. | 354,194 | 354,194 |  |  | 0.041\% | 0.041\% | 0.000\% | 0.000\% | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.009\% |
| 2013 | WECC |  | Overton Power District No. 5 | u.s. | 381,124 | 381,124 |  |  | 0.044\% | 0.044\% | 0.000\% | 0.000\% | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.010\% |
| 2013 | WECC |  | Pacificorp | u.s. | 1,876 | 1,876 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Pacificorp | u.s. | 2,156 | 2,156 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Pacificorp | u.s. | 70,407 | 70,407 |  |  | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |


| Data <br> Year | Regional Entity | ID | Entity | Country | Total NEL (MWh) | U.S. NEL | Canada NEL | Mexico NEL | $\begin{gathered} \text { \% of RE } \\ \text { total } \end{gathered}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | $\begin{array}{r} \text { Mexico } \\ \text { Total } \end{array}$ | $\begin{gathered} \% \text { of ERO } \\ \text { Total } \end{gathered}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | Mexico Total | $\begin{gathered} \text { \% of ERO- } \\ \text { US Only } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2013 | wecc |  | Pacificorp | u.s. | 116,284 | 116,284 |  |  | 0.013\% | 0.013\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | WECC |  | Pacificorp | u.s. | 50,590,830 | 50,590,830 |  |  | 5.825\% | 5.825\% | 0.000\% | 0.000\% | 1.126\% | 1.126\% | 0.000\% | 0.000\% | 1.277\% |
| 2013 | wecc |  | Pacificorp West (PACW) | u.s. | 21,336,825 | 21,336,825 |  |  | 2.457\% | 2.457\% | 0.000\% | 0.000\% | 0.475\% | 0.475\% | 0.000\% | 0.000\% | 0.539\% |
| 2013 | wecc |  | Parkland Light and Water Company | u.s. | 122,305 | 122,305 |  |  | 0.014\% | 0.014\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | wecc |  | Pend Oreille County Pud No. 1 | u.s. | 1,016,523 | 1,016,523 |  |  | 0.117\% | 0.117\% | 0.000\% | 0.000\% | 0.023\% | 0.023\% | 0.000\% | 0.000\% | 0.026\% |
| 2013 | wecc |  | Peninsula Light Company, Inc. | u.s. | 608,193 | 608,193 |  |  | 0.070\% | 0.070\% | 0.000\% | 0.000\% | 0.014\% | 0.014\% | 0.000\% | 0.000\% | 0.015\% |
| 2013 | wecc |  | Platte River Power Authority | u.s. | 3,244,570 | 3,244,570 |  |  | 0.374\% | 0.374\% | 0.000\% | 0.000\% | 0.072\% | 0.072\% | 0.000\% | 0.000\% | 0.082\% |
| 2013 | wecc |  | Port of Seattle - Seattle-Tacoma International Airport | u.s. | 141,204 | 141,204 |  |  | 0.016\% | 0.016\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | wecc |  | Port Townsend Paper Corporation | u.s. | 166,731 | 166,731 |  |  | 0.019\% | 0.019\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | wecc |  | Portland General Electric Company | u.s. | 18,600,632 | 18,600,632 |  |  | 2.142\% | 2.142\% | 0.000\% | 0.000\% | 0.414\% | 0.414\% | 0.000\% | 0.000\% | 0.470\% |
| 2013 | wecc |  | Public Service Company of Colorado (Xcel) | u.s. | 35,594 | 35,594 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | wecc |  | Public Service Company of Colorado (Xcel) | u.s. | 26,537,376 | 26,537,376 |  |  | 3.055\% | 3.055\% | 0.000\% | 0.000\% | 0.590\% | 0.590\% | 0.000\% | 0.000\% | 0.670\% |
| 2013 | wecc |  | Public Service Company of New Mexico | u.s. | 10,787,283 | 10,787,283 |  |  | 1.242\% | 1.242\% | 0.000\% | 0.000\% | 0.240\% | 0.240\% | 0.000\% | 0.000\% | 0.272\% |
| 2013 | wecc |  | Public Utility District No. 1 of Chelan County | u.s. | 4,025,516 | 4,025,516 |  |  | 0.463\% | 0.463\% | 0.000\% | 0.000\% | 0.090\% | 0.090\% | 0.000\% | 0.000\% | 0.102\% |
| 2013 | wecc |  | PUD No. 1 of Asotin County | u.s. | 290 | 290 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | wecc |  | PUD No. 1 of Asotin County | u.s. | 4,975 | 4,975 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | wecc |  | PUD No. 1 of Benton County | u.s. | 1,773,502 | 1,773,502 |  |  | 0.204\% | 0.204\% | 0.000\% | 0.000\% | 0.039\% | 0.039\% | 0.000\% | 0.000\% | 0.045\% |
| 2013 | wecc |  | PUD No. 1 of Clallam County | u.s. | 680,465 | 680,465 |  |  | 0.078\% | 0.078\% | 0.000\% | 0.000\% | 0.015\% | 0.015\% | 0.000\% | 0.000\% | 0.017\% |
| 2013 | wecc |  | PUD No. 1 of Cowlitz County | u.s. | 5,247,802 | 5,247,802 |  |  | 0.604\% | 0.604\% | 0.000\% | 0.000\% | 0.117\% | 0.117\% | 0.000\% | 0.000\% | 0.132\% |
| 2013 | wecc |  | PUD No. 1 of Douglas County | u.s. | 8,928 | 8,928 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.00\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | wecc |  | PUD No. 1 of Douglas County | u.s. | 1,486,659 | 1,486,659 |  |  | 0.171\% | 0.171\% | 0.000\% | 0.000\% | 0.033\% | 0.033\% | 0.000\% | 0.000\% | 0.038\% |
| 2013 | WECC |  | PUD No. 1 of Ferry County | u.s. | 109,044 | 109,044 |  |  | 0.013\% | 0.013\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | wecc |  | PUD No. 1 of Franklin County | u.s. | 1,065,410 | 1,065,410 |  |  | 0.123\% | 0.123\% | 0.000\% | 0.000\% | 0.024\% | 0.024\% | 0.000\% | 0.000\% | 0.027\% |
| 2013 | wecc |  | PUD No. 1 of Grays Harbor | u.s. | 1,186,461 | 1,186,461 |  |  | 0.137\% | 0.137\% | 0.000\% | 0.000\% | 0.026\% | 0.026\% | 0.000\% | 0.000\% | 0.030\% |
| 2013 | wECC |  | PUD No. 1 of Jefferson County | u.s. | 246,380 | 246,380 |  |  | 0.028\% | 0.028\% | 0.000\% | 0.000\% | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.006\% |
| 2013 | wecc |  | PUD No. 1 of Kittitas County | u.s. | 16,412 | 16,412 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | wecc |  | PUD No. 1 of Kittitas County | u.s. | 75,702 | 75,702 |  |  | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | wecc |  | PUD No. 1 of Klickitat County | u.s. | 300,703 | 300,703 |  |  | 0.035\% | 0.035\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.008\% |
| 2013 | wecc |  | PUD No. 1 of Lewis County | u.s. | 938,394 | 938,394 |  |  | 0.108\% | 0.108\% | 0.000\% | 0.000\% | 0.021\% | 0.021\% | 0.000\% | 0.000\% | 0.024\% |
| 2013 | wecc |  | PUD No. 1 of Mason County | u.s. | 78,370 | 78,370 |  |  | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | wecc |  | PUD No. 1 of Skamania County | u.s. | 134,732 | 134,732 |  |  | 0.016\% | 0.016\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | wecc |  | PUD No. 1 of Snohomish County | u.s. | 6,824,113 | 6,824,113 |  |  | 0.786\% | 0.786\% | 0.000\% | 0.000\% | 0.152\% | 0.152\% | 0.000\% | 0.000\% | 0.172\% |
| 2013 | wecc |  | PUD No. 1 of Wahkiakum County | u.s. | 44,092 | 44,092 |  |  | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | wecc |  | PUD No. 1 of Whatcom County | u.s. | 4,995 | 4,995 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | wecc |  | PUD No. 1 of Whatcom County | u.s. | 224,295 | 224,295 |  |  | 0.026\% | 0.026\% | 0.000\% | 0.000\% | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.006\% |
| 2013 | wecc |  | PUD No. 2 of Grant County | u.s. | 49,941 | 49,941 |  |  | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | wecc |  | PUD No. 2 of Grant County | u.s. | 93,675 | 93,675 |  |  | 0.011\% | 0.011\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | wecc |  | PUD No. 2 of Grant County | u.s. | 3,839,087 | 3,839,087 |  |  | 0.442\% | 0.442\% | 0.000\% | 0.000\% | 0.085\% | 0.085\% | 0.000\% | 0.000\% | 0.097\% |
| 2013 | wecc |  | PUD No. 2 of Pacific County | u.s. | 305,445 | 305,445 |  |  | 0.035\% | 0.035\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.008\% |
| 2013 | wecc |  | PUD No. 3 of Mason County | u.s. | 698,785 | 698,785 |  |  | 0.080\% | 0.080\% | 0.000\% | 0.000\% | 0.016\% | 0.016\% | 0.000\% | 0.000\% | 0.018\% |
| 2013 | wecc |  | Puget Sound Energy, Inc. | u.s. | 24,437,530 | 24,437,530 |  |  | 2.814\% | 2.814\% | 0.000\% | 0.000\% | 0.544\% | 0.544\% | 0.000\% | 0.000\% | 0.617\% |
| 2013 | wecc |  | Raft River Electric Cooperative | u.s. | 46 | 46 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.00\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | wecc |  | Raton Public Service | u.s. | 51,732 | 51,732 |  |  | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | wecc |  | Roosevelt Irrigation District - APS | u.s. | 37,851 | 37,851 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | wecc |  | Sacramento Municipal Utility District | u.s. | 11,226,639 | 11,226,639 |  |  | 1.293\% | 1.293\% | 0.000\% | 0.000\% | 0.250\% | 0.250\% | 0.000\% | 0.000\% | 0.283\% |
| 2013 | wecc |  | Salem Electric | u.s. | 331,171 | 331,171 |  |  | 0.038\% | 0.038\% | 0.000\% | 0.000\% | 0.007\% | 0.007\% | 0.000\% | 0.000\% | 0.008\% |
| 2013 | wecc |  | Salt River Project | u.s. | 28,911,429 | 28,911,429 |  |  | 3.329\% | 3.329\% | 0.000\% | 0.000\% | 0.643\% | 0.643\% | 0.000\% | 0.000\% | 0.730\% |
| 2013 | wecc |  | San Carlos Indian Irrigation Project | u.s. | 7 | 7 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | wecc |  | Seattle City light | u.s. | 10,035,929 | 10,035,929 |  |  | 1.155\% | 1.155\% | 0.000\% | 0.000\% | 0.223\% | 0.223\% | 0.000\% | 0.000\% | 0.253\% |
| 2013 | wecc |  | Sierra Pacific Power Company dba NV Energy | u.s. | 11,116,111 | 11,116,111 |  |  | 1.280\% | 0.000\% | 0.000\% | 1.280\% | 0.247\% | 0.247\% | 0.000\% | 0.000\% | 0.281\% |
| 2013 | wecc |  | Silver State Energy - c/o Colorado River Commission of Nevada | u.s. | 515,076 | 515,076 |  |  | 0.059\% | 0.059\% | 0.000\% | 0.000\% | 0.011\% | 0.011\% | 0.000\% | 0.000\% | 0.013\% |
| 2013 | wecc |  | Southern Montana Electric Generation \& Transmission | u.s. | 522,515 | 522,515 |  |  | 0.060\% | 0.060\% | 0.000\% | 0.000\% | 0.012\% | 0.012\% | 0.000\% | 0.000\% | 0.013\% |
| 2013 | wecc |  | Southern Nevada Water Authority | u.s. | 118,357 | 118,357 |  |  | 0.014\% | 0.014\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | wecc |  | Southwest Transmission Cooperative, Inc. | u.s. | 2,012,236 | 2,012,236 |  |  | 0.232\% | 0.232\% | 0.000\% | 0.000\% | 0.045\% | 0.045\% | 0.000\% | 0.000\% | 0.051\% |
| 2013 | WECC |  | Springfield Utility Board | u.s. | 867,593 | 867,593 |  |  | 0.100\% | 0.100\% | 0.000\% | 0.000\% | 0.019\% | 0.019\% | 0.000\% | 0.000\% | 0.022\% |
| 2013 | wecc |  | Surprise Valley Electrification Corporation | u.s. | 38,220 | 38,220 |  |  | 0.004\% | 0.000\% | 0.004\% | 0.000\% | 0.001\% | 0.000\% | 0.001\% | 0.000\% | 0.001\% |
| 2013 | wECC |  | Tanner Electric Cooperative | u.s. | 99,115 | 99,115 |  |  | 0.011\% | 0.011\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.003\% |
| 2013 | WECC |  | The Incorporated County of Los Alamos | u.s. | 364,095 | 364,095 |  |  | 0.042\% | 0.000\% | 0.000\% | 0.042\% | 0.008\% | 0.000\% | 0.000\% | 0.008\% | 0.009\% |


| Data <br> Year | Regional Entity | ID | Entity | Country | Total NEL (MWh) | U.S. NEL | Canada NEL | Mexico NEL | $\begin{gathered} \% \text { of RE } \\ \text { total } \end{gathered}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \\ \hline \end{array}$ | $\begin{array}{r} \text { Mexico } \\ \text { Total } \end{array}$ | $\begin{array}{r} \% \text { of ERO } \\ \text { Total } \end{array}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | $\begin{array}{r} \text { Mexico } \\ \text { Total } \end{array}$ | $\begin{gathered} \text { \% of ERO- } \\ \text { Us Only } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2013 | WECC |  | Tillamook People's Utility District | u.s. | 375,501 | 375,501 |  |  | 0.043\% | 0.043\% | 0.000\% | 0.000\% | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.009\% |
| 2013 | WECC |  | Tohono O'Odham Utility Authority | u.s. | 67,110 | 67,110 |  |  | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | WECC |  | Tonopah Irrigation District - APS | u.s. | 22,698 | 22,698 |  |  | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | wecc |  | Town of Center | u.s. | 20,928 | 20,928 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Town of Coulee | u.s. | 17,416 | 17,416 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | wecc |  | Town of Eatonville | u.s. | 28,069 | 28,069 |  |  | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Town of Fredonia | u.s. | 10,953 | 10,953 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Town of Steilacoom | u.s. | 41,331 | 41,331 |  |  | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Town of Wickenburg | u.s. | 26,570 | 26,570 |  |  | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Tri-State Generation \& Transmission Assoc. Inc - Reliability | u.s. | 2,062,440 | 2,062,440 |  |  | 0.237\% | 0.237\% | 0.000\% | 0.000\% | 0.046\% | 0.046\% | 0.000\% | 0.000\% | 0.052\% |
| 2013 | WECC |  | Tri-State Generation \& Transmission Assoc. Inc - Reliability | u.s. | 7,419,925 | 7,419,925 |  |  | 0.854\% | 0.854\% | 0.000\% | 0.000\% | 0.165\% | 0.165\% | 0.000\% | 0.000\% | 0.187\% |
| 2013 | WECC |  | Tri-State Generation \& Transmission Association, Inc. | u.s. | 2,642,944 | 2,642,944 |  |  | 0.304\% | 0.304\% | 0.000\% | 0.000\% | 0.059\% | 0.059\% | 0.000\% | 0.000\% | 0.067\% |
| 2013 | WECC |  | Truckee Donner Public Utility District | u.s. | 154,280 | 154,280 |  |  | 0.018\% | 0.018\% | 0.000\% | 0.000\% | 0.003\% | 0.003\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | WECC |  | Tucson Electric Power Company | u.s. | 15,085,818 | 15,085,818 |  |  | 1.737\% | 1.737\% | 0.000\% | 0.000\% | 0.336\% | 0.336\% | 0.000\% | 0.000\% | 0.381\% |
| 2013 | WECC |  | Turlock Irrigation District | u.s. | 2,135,260 | 2,135,260 |  |  | 0.246\% | 0.246\% | 0.000\% | 0.000\% | 0.048\% | 0.048\% | 0.000\% | 0.000\% | 0.054\% |
| 2013 | WECC |  | U.S. Army Yuma Proving Ground | u.s. | 16,326 | 16,326 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | U.S. BOR Columbia Basin | u.s. | 33,360 | 33,360 |  |  | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | U.S. BOR East Greenacres (Rathdrum) | u.s. | 4,176 | 4,176 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | U.S. Bor Spokane Indian Development' | u.s. | 3,136 | 3,136 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | U.S. BOR The Dalles Project | u.s. | 18,335 | 18,335 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | U.S. DOE National Energy Technology Laboratory | u.s. | 4,828 | 4,828 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Umatilla Electric Cooperative Association | u.s. | 1,140,059 | 1,140,059 |  |  | 0.131\% | 0.131\% | 0.000\% | 0.000\% | 0.025\% | 0.025\% | 0.000\% | 0.000\% | 0.029\% |
| 2013 | WECC |  | Unit B Irrigation District | u.s. | 24 | 24 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | wecc |  | US Air Force Base, Fairchild | u.s. | 49,053 | 49,053 |  |  | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | US Dept of Energy - Kirtland AFB | u.s. | 410,793 | 410,793 |  |  | 0.047\% | 0.047\% | 0.000\% | 0.000\% | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.010\% |
| 2013 | WECC |  | USDOE Richland | u.s. | 187,652 | 187,652 |  |  | 0.022\% | 0.022\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.005\% |
| 2013 | WECC |  | USN Naval Station, Bremerton | u.s. | 250,674 | 250,674 |  |  | 0.029\% | 0.029\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.006\% |
| 2013 | wecc |  | USN Naval Station, Everett | u.s. | 10,912 | 10,912 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | wecc |  | USN Submarine Base, Bangor | u.s. | 170,292 | 170,292 |  |  | 0.020\% | 0.020\% | 0.000\% | 0.000\% | 0.004\% | 0.004\% | 0.000\% | 0.000\% | 0.004\% |
| 2013 | WECC |  | Vera Water and Power | u.s. | 234,898 | 234,898 |  |  | 0.027\% | 0.027\% | 0.000\% | 0.000\% | 0.005\% | 0.005\% | 0.000\% | 0.000\% | 0.006\% |
| 2013 | WECC |  | Vigilante Electric Cooperative, Inc. | u.s. | 15,897 | 15,897 |  |  | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Wasco Electric Cooperative | u.s. | 97,027 | 97,027 |  |  | 0.011\% | 0.011\% | 0.000\% | 0.000\% | 0.002\% | 0.002\% | 0.000\% | 0.000\% | 0.002\% |
| 2013 | WECC |  | Wells Rural Electric Cooperative | u.s. | 672,455 | 672,455 |  |  | 0.077\% | 0.077\% | 0.00\% | 0.000\% | 0.015\% | 0.015\% | 0.000\% | 0.000\% | 0.017\% |
| 2013 | WECC |  | Wellton-Mohawk Irrigation \& Drainage District | u.s. | 401 | 401 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | West Oregon Electric Cooperative, Inc. | u.s. | 12,860 | 12,860 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | West Oregon Electric Cooperative, Inc. | u.s. | 56,442 | 56,442 |  |  | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Western Area Power - Loveland, co | u.s. | 364,173 | 364,173 |  |  | 0.042\% | 0.042\% | 0.000\% | 0.000\% | 0.008\% | 0.008\% | 0.000\% | 0.000\% | 0.009\% |
| 2013 | WECC |  | Western Area Power - Loveland, co | u.s. | 2,054,674 | 2,054,674 |  |  | 0.237\% | 0.237\% | 0.000\% | 0.000\% | 0.046\% | 0.046\% | 0.000\% | 0.000\% | 0.052\% |
| 2013 | WECC |  | Western Area Power Administration - CRSP | u.s. | 2,053,652 | 2,053,652 |  |  | 0.236\% | 0.236\% | 0.000\% | 0.000\% | 0.046\% | 0.046\% | 0.000\% | 0.000\% | 0.052\% |
| 2013 | WECC |  | Western Area Power Administration - Sierra Nevada Region | u.s. | 1,324,532 | 1,324,532 |  |  | 0.152\% | 0.152\% | 0.000\% | 0.000\% | 0.029\% | 0.029\% | 0.000\% | 0.000\% | 0.033\% |
| 2013 | WECC |  | Western Area Power Administration-Desert Southwest Region | u.s. | 3,225,943 | 3,225,943 |  |  | 0.371\% | 0.371\% | 0.000\% | 0.000\% | 0.072\% | 0.072\% | 0.000\% | 0.000\% | 0.081\% |
| 2013 | WECC |  | Western Area Power Administration-Upper Great Plains Region | u.s. | 7,688 | 7,688 |  |  | 0.001\% | 0.001\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Western Area Power Administration-Upper Great Plains Region | u.s. | 391,282 | 391,282 |  |  | 0.045\% | 0.045\% | 0.000\% | 0.000\% | 0.009\% | 0.009\% | 0.000\% | 0.000\% | 0.010\% |
| 2013 | WECC |  | Wyoming Municipal Power Agency | u.s. | 280,327 | 280,327 |  |  | 0.032\% | 0.032\% | 0.000\% | 0.000\% | 0.006\% | 0.006\% | 0.000\% | 0.000\% | 0.007\% |
| 2013 | WECC |  | Yakama Power | u.s. | 21,718 | 21,718 |  |  | 0.003\% | 0.003\% | 0.00\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.001\% |
| 2013 | WECC |  | Yampa Valley Electric Association | u.s. | 630,694 | 630,694 |  |  | 0.073\% | 0.073\% | 0.000\% | 0.000\% | 0.014\% | 0.014\% | 0.000\% | 0.000\% | 0.016\% |
| 2013 | WECC |  | Yuma Irrigation District | u.s. | 3,112 | 3,112 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
| 2013 | WECC |  | Yuma-Mesa Irrigation District | U.S. | 175 | 175 |  |  | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% | 0.000\% |
|  |  |  | TOTAL WECC |  | 868,549,865 | 737,348,098 | 119,586,872 | 11,614,895 | 100.000\% | 83.568\% | 13.773\% | 2.659\% | 19.323\% | 16.395\% | 2.661\% | 0.267\% | 18.613\% |


| Data <br> Year | Regional Entity | ID | Entity | Country | Total NEL (MWh) | U.S. NEL | Canada NEL | Mexico NEL | $\begin{gathered} \text { \% of RE } \\ \text { total } \end{gathered}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | $\begin{gathered} \text { Mexico } \\ \text { Total } \end{gathered}$ | $\begin{gathered} \% \text { of ERO } \\ \text { Total } \end{gathered}$ | US Total | $\begin{array}{r} \text { Canada } \\ \text { Total } \end{array}$ | $\begin{gathered} \text { Mexico } \\ \text { Total } \end{gathered}$ | $\begin{gathered} \text { \% of ERO- } \\ \text { Us Only } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Summary by Regional Entity |  |  |  |  | Total NEL (MWh) | U.S. NEL | Canada NEL | Mexico NEL |  |  |  |  |  |  |  |  |  |
| 2013 | FRCC |  |  |  | 221,303,111 | 221,303,111 |  |  | 100.000\% | 100.000\% | 0.000\% | 0.000\% | 4.923\% | 4.923\% | 0.000\% | 0.000\% | 5.586\% |
| 2013 | Mro |  |  |  | 289,263,982 | 242,749,464 | 46,514,518 |  | 100.000\% | 83.920\% | 16.080\% | 0.000\% | 6.435\% | 5.401\% | 1.035\% | 0.000\% | 6.128\% |
| 2013 | NPCC |  |  |  | 648,607,000 | 292,891,000 | 355,716,000 |  | 100.000\% | 45.157\% | 54.843\% | 0.000\% | 14.430\% | 6.516\% | 7.914\% | 0.000\% | 7.394\% |
| 2013 | RF |  |  |  | 908,726,579 | 908,726,579 | - |  | 100.000\% | 100.000\% | 0.000\% | 0.000\% | 20.217\% | 20.217\% | 0.000\% | 0.000\% | 22.939\% |
| 2013 | SERC |  |  |  | 1,009,060,489 | 1,009,060,489 | - |  | 100.000\% | 100.00\%\% | 0.000\% | 0.000\% | 22.449\% | 22.449\% | 0.000\% | 0.000\% | 25.472\% |
| 2013 | SPP |  |  |  | 216,655,989 | 216,655,989 | - |  | 100.000\% | 100.000\% | 0.000\% | 0.000\% | 4.820\% | 4.820\% | 0.000\% | 0.000\% | 5.469\% |
| 2013 | TRE |  |  |  | 332,698,379 | 332,698,379 | - | - | 100.000\% | 100.000\% | 0.000\% | 0.000\% | 7.402\% | 7.402\% | 0.000\% | 0.000\% | 8.398\% |
| 2013 | WECC |  |  |  | 868,549,865 | 737,348,098 | 119,586,872 | 11,614,895 | 100.000\% | 83.568\% | 13.773\% | 2.659\% | 19.323\% | 16.395\% | 2.661\% | 0.267\% | 18.613\% |
| Total |  |  |  |  | 4,494,865,394 | 3,961,433,109 | 521,817,390 | 11,614,895 | 800.000\% | 712.645\% | 84.696\% | 2.659\% | 100.000\% | 88.123\% | 11.610\% | 0.267\% | 100.000\% |


| $\begin{aligned} & \text { Data } \\ & \text { Year } \end{aligned}$ | $\begin{gathered} \text { Regional } \\ \text { Entity } \end{gathered}$ | ID | Entity | Country | Total Ero Assessments (NERC, RE \& WIRAB Costs) |  |  |  | Total NERC Assessments |  |  |  | Total Regional Entity Assessments (Including WIRAB Assessments) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total |
| 2013 | frcc | 1074 | Alachua, City of | u.s. | 4,821 | 4,821 | - | - | 1,522 | 1,522 | - | - | 3,300 | 3,300 | - | - |
| 2013 | frcc | 1075 | Bartow, City of | u.s. | 10,868 | 10,868 | - | - | 3,430 | 3,430 | - | - | 7,438 | 7,438 | - | - |
| 2013 | fric | 1076 | Chattahoochee, City of | u.s. | 1,461 | 1,461 | - | - | 461 | 461 | - | - | 1,000 | 1,000 | - | - |
| 2013 | FRCC | 1077 | Florida Keys Electric Cooperative Assn | u.s. | 28,781 | 28,781 | - | - | 9,084 | 9,084 | - | - | 19,698 | 19,698 | - | - |
| 2013 | fric | 1078 | Florida Power \& Light Co. | u.s. | 4,382,905 | 4,382,905 | - | - | 1,383,264 | 1,383,264 | - | - | 2,999,641 | 2,999,641 | - | - |
| 2013 | FRCC | 1079 | Florida Public Utilities Company | u.s. | 14,142 | 14,142 | - | - | 4,463 | 4,463 | - | - | 9,679 | 9,679 | - | - |
| 2013 | FRCC | 1080 | Gainesville Regional Utilities | u.s. | 70,452 | 70,452 | - | - | 22,235 | 22,235 | - | - | 48,217 | 48,217 | - | - |
| 2013 | fric | 1081 | Homestead, City of | u.s. | 20,415 | 20,415 | - | - | 6,443 | 6,443 | - | - | 13,972 | 13,972 | - | - |
| 2013 | fric | 1082 | JEA | u.s. | 478,834 | 478,834 | - | - | 151,122 | 151,122 | - | - | 327,712 | 327,712 | - | - |
| 2013 | FRCC | 1083 | Lakeland Electric | u.s. | 116,846 | 116,846 | - | - | 36,877 | 36,877 | - | - | 79,969 | 79,969 | - | - |
| 2013 | fric | 1626 | Lee County Electric Cooperative, Inc | u.s. | 146,728 | 146,728 | - | - | 46,308 | 46,308 | - | - | 100,420 | 100,420 | - | - |
| 2013 | frcc | 1661 | City of Lake Worth | u.s. | 17,453 | 17,453 | - | - | 5,508 | 5,508 | - | - | 11,945 | 11,945 | - | - |
| 2013 | frcc | 1084 | Mount Dora, City of | u.s. | 3,559 | 3,559 | - | - | 1,123 | 1,123 | - | - | 2,436 | 2,436 | - | - |
| 2013 | fric | 1085 | New Smyrna Beach, Utilities Commission of | u.s. | 15,451 | 15,451 | - | - | 4,877 | 4,877 | - | - | 10,575 | 10,575 | - | - |
| 2013 | FRCC | 1086 | Orlando Utilities Commission | u.s. | 227,909 | 227,909 | - | - | ${ }^{71,929}$ | 71,929 | - | - | 1555,980 | 155,980 | - | - |
| 2013 | FRCC | 1087 | Duke Energy Florida | u.s. | 1,569,785 | 1,569,785 | - | - | 495,431 | 495,431 | - | - | 1,074,354 | 1,074,354 | - | - |
| 2013 | FRCC | 1088 | Quincy, City of | u.s. | 5,444 | 5,444 | - | - | 1,718 | 1,718 | - | - | 3,726 | 3,726 | - | - |
| 2013 | FRCC | 1089 | Reedy Creek Improvement District | u.s. | 48,356 | 48,356 | - | - | 15,261 | 15,261 | - | - | 33,094 | 33,094 | - | - |
| 2013 | FRCC | 1090 | St. Cloud, City of (OUC) | u.s. | 24,138 | 24,138 | - | - | 7,618 | 7,618 | - | - | 16,520 | 16,520 | - | - |
| 2013 | frcc | 1091 | Tallahassee, City of | u.s. | 107,439 | 107,439 | - | - | 33,908 | 33,908 | - | - | 73,531 | 73,531 | - | - |
| 2013 | fric | 1092 | Tampa Electric Company | u.s. | 767,648 | 767,648 | - | - | 242,273 | 242,273 | - | - | 525,375 | 525,375 | - | - |
| 2013 | frcc | 1603 | City of Vero Beach | u.s. | 29,582 | 29,582 | - | - | 9,336 | 9,336 | - | - | 20,246 | 20,246 | - | - |
| 2013 | FRCC | 1093 | Wauchula, City of | u.s. | 2,473 | 2,473 | - | - | 780 | 780 | - | - | 1,692 | 1,692 | - | - |
| 2013 | fric | 1094 | Williston, City of | u.s. | 1,281 | 1,281 | - | - | 404 | 404 | - | - | 877 | 877 | - | - |
| 2013 | frec | 1095 | Winter Park, City of | u.s. | 17,293 | 17,293 | - | - | 5,458 | 5,458 | - | - | 11,835 | 11,835 | - | - |
| 2013 | fric | 1072 | Florida Municipal Power Agency | u.s. | 221,124 | 221,124 | - | - | 69,788 | 69,788 | - | - | 151,336 | 151,336 | - | - |
| 2013 | FRCC | 1073 | Seminole Electric Cooperative | u.s. | 523,487 | 523,487 | - | - | 165,215 | 165,215 | - | - | 358,272 | 358,272 | - | - |
|  |  |  | TOTAL FRCC |  | 8,858,675 | 8,858,675 | - | - | 2,795,837 | 2,795,837 | - | - | 6,062,838 | 6,062,838 | - | - |
| 2013 | MRO | 1199 | Basin Electric Power Cooperative | u.s. | 638,347 | 638,347 | - | - | 179,380 | 179,380 | - | - | 458,968 | 458,968 |  |  |
| 2013 | MRO | 1201 | Central lowa Power Cooperative (CIPCO) | u.s. | 127,935 | 127,935 | - | - | 35,951 | 35,951 | - | - | 91,985 | 91,985 | - | - |
| 2013 | mRO | 1204 | Corn Belt Power Cooperative | u.s. | 92,089 | 92,089 | - | - | 25,878 | 25,878 | - | - | 66,211 | 66,211 | - | - |
| 2013 | mRO | 1207 | Dairyland Power Cooperative | u.s. | 247,566 | 247,566 | - | - | 69,568 | 69,568 | - | - | 177,998 | 177,998 | - | - |
| 2013 | MRO | 1210 | Great River Energy | u.s. | 626,005 | 626,005 | - | - | 175,912 | 175,912 | - | - | 450,093 | 450,093 | - | - |
| 2013 | mRo | 1222 | Minnkota Power Cooperative, Inc. | u.s. | 195,842 | 195,842 | - | - | 55,033 | 55,033 | - | - | 140,809 | 140,809 | - |  |
| 2013 | mRo | 1230 | Nebraska Public Power District | u.s. | 612,718 | 612,718 | - | - | 172,178 | 172,178 | - | - | 440,540 | 440,540 | - | - |
| 2013 | mRo | 1232 | Omaha Public Power District | u.s. | 514,943 | 514,943 | - | - | 144,702 | 144,702 | - | - | 370,240 | 370,240 | - | - |
| 2013 | mro | 1237 | Southern Montana Generation and Transmission | u.s. | 313 | 313 | - | - | 88 | 88 | - | - | 225 | 225 | - | - |
| 2013 | MRO | 1240 | Western Area Power Administration (UM) | u.s. | 406,452 | 406,452 | - | - | 114,216 | 114,216 | - | - | 292,236 | 292,236 | - | - |
| 2013 | mRo | 1239 | Western Area Power Administration (LM) | u.s. | 5,705 | 5,705 | - | - | 1,603 | 1,603 | - | - | 4,102 | 4,102 | - | - |
| 2013 | mRo | 1217 | Manitoba Hydro | can | 1,118,318 | 5, | 1,118,318 | - | 308,347 | , | 308,347 | - | 809,971 | - | 809,971 | - |
| 2013 | mRo | 1235 | SaskPower | CAN | 1,062,135 | - | 1,062,135 | - | 292,856 | - | 292,856 | - | 769,279 | - | 769,279 | - |
| 2013 | mRo | 1195 | Alliant Energy (Alliant East - WPL \& Alliant West IPL) | u.s. | 1,304,407 | 1,304,407 | - | - | 366,547 | 366,547 | - | - | 937,860 | 937,860 | - | - |
| 2013 | mro | 1216 | Madison, Gas and Electric | u.s. | 155,908 | 155,908 | - | - | 43,811 | 43,811 | - | - | 112,097 | 112,097 | - |  |
| 2013 | mRo | 1220 | MidAmerican Energy Company | u.s. | 1,278,841 | 1,278,841 | - | - | 359,363 | 359,363 | - | - | 919,478 | 919,478 | - | - |
| 2013 | mRo | 1221 | Minnesota Power | u.s. | 586,752 | 586,752 | - | - | 164,881 | 164,881 | - | - | 421,870 | 421,870 | - | - |
| 2013 | mRo | 1226 | Montana-Dakota Utilities Co. | u.s. | 140,047 | 140,047 | - | - | 39,354 | 39,354 | - | - | 100,693 | 100,693 | - | - |
| 2013 | mRO | 1231 | NorthWestern Energy | u.s. | 70,319 | 70,319 | - | - | 19,760 | 19,760 | - | - | 50,559 | 50,559 | - | - |
| 2013 | mRO | 1233 | Otter Tail Power Company | u.s. | 206,309 | 206,309 | - | - | 57,974 | 57,974 | - | - | 148,334 | 148,334 | - | - |
| 2013 | Mro |  | Wisconsin Public Service (WPS) | u.s. | 553,906 | 553,906 | - | - | 155,651 | 155,651 | - | - | 398,255 | 398,255 | - | - |
| 2013 | mro |  | Upper Peninsula Power Company (UPPCO) | u.s. | 36,999 | 36,999 | - | - | 10,397 | 10,397 | - | - | 26,602 | 26,602 | - | - |
| 2013 | MRO | 1244 | Xcel Energy Company (NSP) | u.s. | 2,030,085 | 2,030,085 | - | - | 570,467 | 570,467 | - | - | 1,459,617 | 1,459,617 | - | - |
| 2013 | mro | 1196 | Ames Municipal Electric System | u.s. | 34,725 | 34,725 | - | - | 9,758 | 9,758 | - | - | 24,967 | 24,967 | - | - |
| 2013 | Mro | 1604 | Atlantic Municipal Utilities | u.s. | 3,738 | 3,738 | - | - | 1,050 | 1,050 | - | - | 2,688 | 2,688 | - | - |
| 2013 | mRo | 1476 | Badger Power Marketing Authority of Wisconsin, Inc. | u.s. | 18,155 | 18,155 | - | - | 5,102 | 5,102 | - | - | 13,053 | 13,053 | - | - |
| 2013 | mRo | 1200 | Cedar Falls Municipal Utilities | u.s. | 24,017 | 24,017 | - | - | 6,749 | 6,749 | - | - | 17,268 | 17,268 | - | - |
| 2013 | mRo | 1477 | Central Minnesota Municipal Power Agency (CMMPA) | u.s. | 20,997 | 20,997 | - | - | 5,900 | 5,900 | - | - | 15,096 | 15,096 | - | - |
| 2013 | Mro | 1203 | City of Escanaba | u.s. | 6,278 | 6,278 | - | - | 1,764 | 1,764 | - | - | 4,514 | 4,514 | - | - |
| 2013 | MRO | 1205 | Falls City Water \& Light Department | u.s. | 2,561 | 2,561 | - | - | 720 | 720 | - | - | 1,841 | 1,841 | - | - |
| 2013 | mro | 1206 | Fremont Department of Utilities | u.s. | 19,688 | 19,688 | - | - | 5,532 | 5,532 | - | - | 14,155 | 14,155 | - | - |
| 2013 | MRO | 1208 | Geneseo Municipal Utilities | u.s. | 2,991 | 2,991 | - | - | 840 | 840 | - | - | 2,150 | 2,150 | - | - |


| $\begin{aligned} & \text { Data } \\ & \text { Year } \end{aligned}$ | $\begin{gathered} \text { Regional } \\ \text { Entity } \end{gathered}$ | ID | Entity | Country | Total ERO Assessments (NERC, RE \& WIRAB Costs) |  |  |  | Total NERC Assessments |  |  |  | Total Regional Entity Assessments (Including WIRAB Assessments) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total |
| 2013 | MRO | 1209 | Grand Island Utilities Department | u.s. | 34,182 | 34,182 | - | - | 9,605 | 9,605 | - | - | 24,576 | 24,576 | - | - |
| 2013 | MRO | 1606 | Harlan Municipal Utilities | u.s. | 1,083 | 1,083 | - | - | 304 | 304 | - | - | 778 | 778 | - | - |
| 2013 | mRO | 1211 | Hastings Utilities | u.s. | 19,678 | 19,678 | - | - | 5,530 | 5,530 | - | - | 14,149 | 14,149 | - | - |
| 2013 | mRo | 1212 | Heartland Consumers Power District | u.s. | 38,272 | 38,272 | - | - | 10,755 | 10,755 | - | - | 27,517 | 27,517 | - | - |
| 2013 | mRo | 1213 | Hutchinson Utilities Commission | u.s. | 13,036 | 13,036 | - | - | 3,663 | 3,663 | - | - | 9,373 | 9,373 | - | - |
| 2013 | mRO | 1215 | Lincoln Electric System | u.s. | 147,330 | 147,330 | - | - | 41,401 | 41,401 | - | - | 105,929 | 105,929 | - | - |
| 2013 | mro | 1218 | Manitowoc Public Utilities | u.s. | 24,350 | 24,350 | - | - | 6,842 | 6,842 | - | - | 17,507 | 17,507 | - | - |
| 2013 | mRo | 1223 | Missouri River Energy Services | u.s. | 110,550 | 110,550 | - | - | 31,065 | 31,065 | - | - | 79,485 | 79,485 | - | - |
| 2013 | mRo | 1224 | MN Municipal Power Agency (MMPA) | u.s. | 68,505 | 68,505 | - | - | 19,250 | 19,250 | - | - | 49,254 | 49,254 | - | - |
| 2013 | mRo | 1607 | Montezuma Municipal Light \& Power | u.s. | 1,446 | 1,446 | - | - | 406 | 406 | - | - | 1,039 | 1,039 | - | - |
| 2013 | mRo | 1227 | Municipal Energy Agency of Nebraska | u.s. | 52,939 | 52,939 | - | - | 14,876 | 14,876 | - | - | 38,063 | 38,063 | - | - |
| 2013 | mro | 1228 | Muscatine Power and Water | u.s. | 39,302 | 39,302 | - | - | 11,044 | 11,044 | - | - | 28,258 | 28,258 | - | - |
| 2013 | mRo | 1229 | Nebraska City Utilities | u.s. | 7,720 | 7,720 | - | - | 2,169 | 2,169 | - | - | 5,550 | 5,550 | - | - |
| 2013 | mRo | 1234 | Rochester Public Utilities | u.s. | 242 | 242 | - | - | 68 | 68 | - | - | 174 | 174 | - | - |
| 2013 | mro | 1236 | Southern Minnesota Municipal Power Agency | u.s. | 132,923 | 132,923 | - | - | 37,352 | 37,352 | - | - | 95,571 | 95,571 | - | - |
| 2013 | MRO | 1241 | Willmar Municipal Utilities | u.s. | 11,828 | 11,828 | - | - | 3,324 | 3,324 | - | - | 8,504 | 8,504 | - | - |
| 2013 | MRO | 1242 | Wisconsin Public Power, Inc. (East and West regions) | u.s. | 245,529 | 245,529 | , | - | 68,995 | 68,995 | - | - | 176,534 | 176,534 | 2 | - |
|  |  |  | TOTAL MRO |  | 13,094,003 | 10,913,550 | 2,180,453 | - | 3,667,984 | 3,066,780 | 601,204 | - | 9,426,019 | 7,846,770 | 1,579,249 | - |
| 2013 | nPCC | 1336 | New England | u.s. | 5,503,872 | 5,503,872 | - | - | 1,634,487 | 1,634,487 | - | - | 3,869,386 | 3,869,386 | - | - |
| 2013 | npCC | 1339 | New York | u.s. | 6,956,107 | 6,956,107 | - | - | 2,065,757 | 2,065,757 | - | - | 4,890,350 | 4,890,350 | - | - |
| 2013 | nPCC | 1337 | Ontario | Canada | 3,200,394 | - | 3,200,394 | - | 1,215,106 |  | 1,215,106 | - | 1,985,288 | - | 1,985,288 | - |
| 2013 | nPCC | 1341 | Quebec | Canada | 4,539,006 | - | 4,539,006 | - | 1,757,802 | - | 1,757,802 | - | 2,781,204 | - | 2,781,204 | - |
| 2013 | NPCC | 1338 | New Brunswick | Canada | 418,528 | - | 418,528 | - | 118,912 | - | 118,912 | - | 299,616 | - | 299,616 | - |
| 2013 | NPCC | 1340 | Nova Scotia | Canada | 387,446 | - | 387,446 | - | 144,412 | - | 144,412 | - | 243,034 | - | 243,034 |  |
|  |  |  | TOTAL NPCC |  | 21,005,353 | 12,459,980 | 8,545,373 | - | 6,936,475 | 3,700,244 | 3,236,231 | - | 14,068,878 | 8,759,736 | 5,309,142 | - |
| 2013 | RF | 1104 | Bay City | u.s. | 10,960 | 10,960 | - | - | 4,167 | 4,167 | - | - | 6,793 | 6,793 | - | - |
| 2013 | ${ }^{\text {RF }}$ | 1102 | Cannelton Utilities | u.s. | 539 | 539 | - | - | 205 | 205 | - | - | 334 | 334 | - | - |
| 2013 | RF | 1105 | City of Chelsea | u.s. | 3,232 | 3,232 | - | - | 1,229 | 1,229 | - | - | 2,003 | 2,003 | - | - |
| 2013 | RF | 1106 | City of Croswell | u.s. | 1,408 | 1,408 | - | - | 536 | 536 | - | - | 873 | 873 | - | - |
| 2013 | RF | 1108 | City of Eaton Rapids | u.s. | 3,177 | 3,177 | - | - | 1,208 | 1,208 | - | - | 1,969 | 1,969 | - |  |
| 2013 | RF | 1111 | City of Hart | u.s. | 1,624 | 1,624 | - | - | 617 | 617 | - | - | 1,006 | 1,006 | - |  |
| 2013 | RF | 1490 | City of Lansing | u.s. | 73,928 | 73,928 | - | - | 28,109 | 28,109 | - | - | 45,819 | 45,819 | - | - |
| 2013 | RF | 1112 | City of Marquette Board of Light \& Power | u.s. | 11,062 | 11,062 | - | - | 4,206 | 4,206 | - | - | 6,856 | 6,856 | - | - |
| 2013 | RF | 1114 | City of Portland | u.s. | 1,227 | 1,227 | - | - | 466 | 466 | - | - | 760 | 760 | - | - |
| 2013 | RF | 1116 | City of St. Louis | u.s. | 1,341 | 1,341 | - | - | 510 | 510 | - | - | 831 | 831 | - |  |
| 2013 | RF | 1118 | City of Wyandotte | u.s. | 7,300 | 7,300 | - | - | 2,776 | 2,776 | - | - | 4,525 | 4,525 | - | - |
| 2013 | RF | 1120 | Cloverland Electric Cooperative | u.s. | 29,986 | 29,986 | - | - | 11,401 | 11,401 | - | - | 18,585 | 18,585 | - | - |
| 2013 | RF | 1122 | CMS ERM Michigan LLC | u.s. | 5,266 | 5,266 | - | - | 2,002 | 2,002 | - | - | 3,264 | 3,264 | - | - |
| 2013 | RF | 1124 | Constellation New Energy (MECS-CONS) | u.s. | 30,066 | 30,066 | - | - | $11,432$ | $11,432$ | - | - | $18,634$ | 18,634 | - |  |
| 2013 | RF | 1123 | Constellation New Energy (MECS-DET) | u.s. | 36,321 | 36,321 | - | - | 13,810 | $13,810$ | - | - | 22,511 | 22,511 | - | - |
| 2013 | RF | 1126 | Consumers Energy Company | u.s. | 1,081,741 | 1,081,741 | - | - | 411,297 | 411,297 | - | - | 670,444 | 670,444 | - | - |
| 2013 | RF | 1128 | Detroit Edison Company | u.s. | 1,541,192 | 1,541,192 | - | - | 585,989 | 585,989 | - | - | 955,204 | 955,204 | - | - |
| 2013 | RF | 1166 | Duke Energy Indiana | u.s. | 1,009,730 | 1,009,730 | - | - | 383,917 | 383,917 | - | - | 625,813 | 625,813 | - | - |
| 2013 | RF | 1135 | Ferdinand Municipal Light \& Water | u.s. | 1,579 | 1,579 | - | - | 600 | 600 | - | - | 979 | 979 | - | - |
| 2013 | RF | 1646 | FirstEnergy Solutions (MECS-CONS) | u.s. | 22,854 | 22,854 | - | - | 8,689 | 8,689 | - | - | 14,164 | 14,164 | - | - |
| 2013 | RF | 1549 | Firstenergy Solutions (MECS-DET) | u.s. | 79,152 | 79,152 | - | - | 30,095 | 30,095 | - | - | 49,057 | 49,057 | - | - |
| 2013 | RF | 1612 | Glacial Energy (MECS-DET) | u.s. | 4,807 | 4,807 | - | - | 1,828 | 1,828 | - | - | 2,979 | 2,979 | - | - |
| 2013 | RF | 1144 | Holland Board of Public Works | u.s. | 32,718 | 32,718 | - | - | 12,440 | 12,440 | - | - | 20,278 | 20,278 | - |  |
| 2013 | ${ }^{\text {RF }}$ | 1145 | Hoosier Energy | u.s. | 243,216 | 243,216 | - |  | 92,475 | 92,475 | - | - | 150,741 | 150,741 | - | - |
| 2013 | RF | 1148 | Indiana Municipal Power Agency (DUKE CIIN) | u.s. | 102,647 | 102,647 | - |  | 39,028 | 39,028 | - |  | 63,619 | 63,619 | - | - |
| 2013 | RF | 1485 | Indiana Municipal Power Agency (NIPSCO) | u.s. | 14,257 | 14,257 | - | - | 5,421 | 5,421 | - | - | 8,836 | 8,836 | - | - |
| 2013 | RF | 1486 | Indiana Municipal Power Agency (SIGE) | u.s. | 19,660 | 19,660 | - | - | 7,475 | 7,475 | - | - | 12,185 | 12,185 | - | - |
| 2013 | RF | 1149 | Indianapolis Power \& Light Co. | u.s. | 491,284 | 491,284 | - | - | 186,795 | 186,795 | - | - | 304,489 | 304,489 | - | - |
| 2013 | ${ }^{\text {RF }}$ | 1553 | Integrys Energy Services (MECS-CONS) | u.s. | 34,065 | 34,065 | - | - | 12,952 | 12,952 | - | - | 21,113 | 21,113 | - | - |
| 2013 | ${ }^{\text {RF }}$ | 1554 | Integrys Energy Services (MECS-DET) | u.s. | 19,269 | 19,269 | - | - | 7,326 | 7,326 | - | - | 11,943 | 11,943 | - | - |
| 2013 | ${ }_{\text {RF }}^{\text {RF }}$ |  | Integry Energy Services (WEPC) | u.s. | 28,641 | 28,641 | - | - | 10,890 | $10,890$ | - | - | $17,751$ | $17,751$ | - | - |
| 2013 2013 | RF RF | 1614 1154 | Just Energy (MECS-DET) Michigan Public Power Agency | U.S. u.s. | 482 42,455 | 482 42,455 | $:$ | : | 183 16,142 | 183 16,142 | - | $:$ | 299 26,313 | 299 26,313 | $:$ | $:$ |
| 2013 | ${ }_{\text {RF }}$ | 1155 | Michigan South Central Power Agency | U.S. | 21, 21,491 | ${ }_{2}^{42,1291}$ | $:$ | - | 16,142 8,095 | 16,142 8,095 | $:$ | - | 13,196 | 13,196 | - | $:$ |


| $\begin{aligned} & \text { Data } \\ & \text { Year } \end{aligned}$ | $\begin{gathered} \text { Regional } \\ \text { Entity } \end{gathered}$ | ID | Entity | Country | Total ERO Assessments (NERC, RE \& WIRAB Costs) |  |  |  | Total NERC Assessments |  |  |  | Total Regional Entity Assessments (Including WIRAB Assessments) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total |
| 2013 | RF | 1158 | MidAmerican Energy Company Retail | u.s. | 3,306 | 3,306 | - | - | 1,257 | 1,257 | - | - | 2,049 | 2,049 | - | - |
| 2013 | RF | 1163 | Northern Indiana Public Service Co. | u.s. | 584,682 | 584,682 | - | - | 222,307 | 222,307 | - | - | 362,376 | 362,376 | - | - |
| 2013 | RF | 1164 | Ontonagon County Rural Electrification Assoc. | u.s. | 979 | 979 | - | - | 372 | 372 | - | - | 607 | 607 | - | - |
| 2013 | RF | 1265 | PJM Interconnnection, LLC | u.s. | 23,113,718 | 23,113,718 | - | - | 8,788,247 | 8,788,247 | - | - | 14,325,471 | 14,325,471 | - | - |
| 2013 | RF | 1172 | Sempra Energy Solutions (MECS-CONS) | u.s. | 22,506 | 22,506 | - | - | 8,557 | 8,557 | - | - | 13,949 | 13,949 | - | - |
| 2013 | RF | 1171 | Sempra Energy Solutions (MECS-DET) | u.s. | 23,648 | 23,648 | - | - | 8,991 | 8,991 | - | - | 14,657 | 14,657 | - | - |
| 2013 | RF | 1176 | Direct Energy (fka:Strategic Energy, LLC) (MECS-CONS) | u.s. | 429 | 429 | - | - | 163 | 163 | - | - | 266 | 266 | - | - |
| 2013 | RF | 1174 | Direct Energy (fka:Strategic Energy,LLC) (MECS-DET) | u.s. | 12,365 | 12,365 | - | - | 4,701 | 4,701 | - | - | 7,663 | 7,663 | - | - |
| 2013 | RF | 1581 | Spartan Renewable Energy | u.s. | 2,251 | 2,251 | - | - | 856 | 856 | - | - | 1,395 | 1,395 | - | - |
| 2013 | RF | 1180 | Thumb Electric Cooperative | u.s. | 6,005 | 6,005 | - | - | 2,283 | 2,883 | - | - | 3,722 | 3,722 | - | - |
| 2013 | RF | 1662 | Ohio Valley Electric Corporation | u.s. | 21,419 | 21,419 | - | - | 8,144 | 8,144 | - | - | 13,275 | 13,275 | - | - |
| 2013 | RF | 1181 | Vectren Energy Delivery of IN | u.s. | 191,372 | 191,372 | - | - | 72,763 | 72,763 | - | - | 118,609 | 118,609 | - | - |
| 2013 | RF | 1183 | Village of Sebewaing | u.s. | 1,468 | 1,468 | - | - | 558 | 558 | - | - | 910 | 910 | - | - |
| 2013 | RF | 1184 | Wabash Valley Power Association Inc. (DUKE CIN) | u.s. | 93,092 | 93,092 | - | - | 35,395 | 35,395 | - | - | 57,697 | 57,697 | - | - |
| 2013 | RF | 1488 | Wabash Valley Power Association Inc.(NIPSCO) | u.s. | 56,088 | 56,088 | - | - | 21,326 | 21,326 | - | - | 34,762 | 34,762 | - | - |
| 2013 | RF | 1185 | Wisconsin Electric Power Co. | u.s. | 934,410 | 934,410 | - | - | 355,279 | 355,279 | - | - | 579,131 | 579,131 | - | - |
| 2013 | RF | 1189 | Wolverine Power Marketing Cooperative | u.s. | 25,189 | 25,189 | - | - | 9,577 | 9,577 | - | - | 15,612 | 15,612 | - | - |
| 2013 | RF | 1191 | Wolverine Power Supply Cooperative | u.s. | 88,329 | 88,329 | - | - | 33,584 | 33,584 | - | - | 54,745 | 54,745 | - | - |
| 2013 | RF | 1190 | Wolverine Power Marketing Cooperative | u.s. | 4,575 | 4,575 | - | - | 1,739 | 1,739 | - | - | 2,836 | 2,836 | - | . |
|  |  |  | TOTAL RELIABILITYFIRST |  | 30,194,311 | 30,194,311 | - | - | 11,480,414 | 11,480,414 | - | - | 18,713,897 | 18,713,897 | - | - |
| 2013 | SERC | 1267 | Alabama Municipal Electric Authority | u.s. | 89,475 | 89,475 | - | - | 43,076 | 43,076 | - | - | 46,398 | 46,398 | - | - |
| 2013 | SERC | 1268 | Alabama Power Company | u.s. | 1,553,574 | 1,553,574 | - | - | 747,948 | 747,948 | - | - | 805,626 | 805,626 | - | - |
| 2013 | serc | 1269 | Ameren-1llinois | u.s. | 1,127,823 | 1,127,823 | - | - | 542,976 | 542,976 | - | - | 584,847 | 584,847 | - | - |
| 2013 | serc | 1271 | Ameren - Missouri | u.s. | 1,100,453 | 1,100,453 | - | - | 529,799 | 529,799 | - | - | 570,654 | 570,654 | - | - |
| 2013 | serc | 1272 | APGI - Yadkin Division | u.s. | 723 | 723 | - | - | 348 | 348 | - | - | 375 | 375 | - | - |
| 2013 | SERC | 1660 | APGI - Tapoco Division (ALCOA) | u.s. | 8,296 | 8,296 | - | - | 3,994 | 3,994 | - | - | 4,302 | 4,302 | - | - |
| 2013 | serc | 1273 | Associated Electric Cooperative Inc. | u.s. | 508,154 | 508,154 | - | - | 244,644 | 244,644 | - | - | 263,510 | 263,510 | - | - |
| 2013 | serc | 1582 | Beauregard Electric Cooperative, Inc. | u.s. | 29,334 | 29,334 | - | - | 14,122 | 14,122 | - | - | 15,211 | 15,211 | - |  |
| 2013 | serc | 1462 | Benton Utility District | u.s. | 7,145 | 7,145 | - | - | 3,440 | 3,440 | - | - | 3,705 | 3,705 | - | - |
| 2013 | serc | 1274 | Big Rivers Electric Corporation | u.s. | 100,357 | 100,357 | - | - | 48,316 | 48,316 | - | - | 52,041 | 52,041 | - | - |
| 2013 | SERC | 1275 | Black Warrior EMC | u.s. | 11,516 | 11,516 | - | - | 5,544 | 5,544 | - | - | 5,972 | 5,972 | - | - |
| 2013 | SERC | 1276 | Blue Ridge EMC | u.s. | 36,834 | 36,834 | - | - | 17,733 | 17,733 | - | - | 19,101 | 19,101 | - | - |
| 2013 | SERC | 1628 | Brazos Electric Power Cooperative, Inc. | u.s. | 11,297 | 11,297 | - | - | 5,439 | 5,439 | - | - | 5,858 | 5,858 | - | - |
| 2013 | serc | 1463 | Canton, Ms | u.s. | 3,182 | 3,182 | - | - | 1,532 | 1,532 | - | - | 1,650 | 1,650 | - | - |
| 2013 | serc | 1277 | Central Electric Power Coooperative Inc. | u.s. | 401,671 | 401,671 | - | - | 193,380 | 193,380 | - | - | 208,292 | 208,292 | - | - |
| 2013 | serc |  | Century Aluminum - Hawesville | u.s. | 112,096 | 112,096 | - | - | 53,967 | 53,967 | - | - | 58,129 | 58,129 | - | - |
| 2013 | serc |  | Century Aluminum - Sebree | u.s. | 85,342 | 85,342 | - | - | 41,087 | 41,087 | - | - | 44,255 | 44,255 | - |  |
| 2013 | serc | 1278 | City of Blountstown FL | u.s. | 1,000 | 1,000 | - | - | 481 | 481 | - | - | 518 | 518 | - | - |
| 2013 | SERC | 1279 | City of Camden SC | u.s. | 4,956 | 4,956 | - | - | 2,386 | 2,386 | - | - | 2,570 | 2,570 | - | - |
| 2013 | SERC | 1280 | City of Collins MS | u.s. | 1,306 | 1,306 | - | - | 629 | 629 | - | - | 677 | 677 | - | - |
| 2013 | SErc | 1281 | City of Columbia MO | u.s. | 31,187 | 31,187 | - | - | 15,015 | 15,015 | - | - | 16,173 | 16,173 | - | - |
| 2013 | serc | 1282 | City of Conway AR (Conway Corporation) | u.s. | 27,161 | 27,161 | - | - | 13,076 | 13,076 | - | - | 14,084 | 14,084 | - | - |
| 2013 | serc | 1284 | City of Evergreen AL | u.s. | 1,541 | 1,541 | - | - | 742 | 742 | - | - | 799 | 799 | - | - |
| 2013 | SERC | 1285 | City of Hampton GA | u.s. | 619 | 619 | - | - | 298 | 298 | - | - | 321 | 321 | - | - |
| 2013 | SERC | 1286 | City of Hartford AL | u.s. | 878 | 878 | - | - | 423 | 423 | - | - | 455 | 455 | - | - |
| 2013 | SERC | 1287 | City of Henderson (KY) Municipal Power \& Light | u.s. | 16,195 | 16,195 | - | - | 7,797 | 7,997 | - | - | 8,398 | 8,398 | - |  |
| 2013 | serc | 1288 | City of North Little Rock AR (DENL) | u.s. | 25,159 | 25,159 | - | - | 12,112 | 12,112 | - | - | 13,046 | 13,046 | - | - |
| 2013 | serc | 1289 | City of Orangeburg SC Department of Public Utilities | u.s. | 21,944 | 21,944 | - | - | 10,565 | 10,565 | - | - | 11,380 | 11,380 | - | - |
| 2013 | SERC | 1290 | City of Robertsdale AL | u.s. | 2,207 | 2,207 | - | - | 1,062 | 1,062 | - | - | 1,144 | 1,144 | - | - |
| 2013 | SERC | 1291 | City of Ruston LA (DERS) | u.s. | 7,793 | 7,793 | - | - | 3,752 | 3,752 | - | - | 4,041 | 4,041 | - |  |
| 2013 | SERC | 1292 | City of Seneca SC | u.s. | 4,196 | 4,196 | - | - | 2,020 | 2,020 | - | - | 2,176 | 2,176 | - | - |
| 2013 | serc | 1115 | City of Springfield (CWLP) | u.s. | 47,460 | 47,460 | - | - | 22,849 | 22,849 | - | - | 24,611 | 24,611 | - | - |
| 2013 | serc | 1465 | City of Thayer, MO | u.s. | 609 | 609 | - | - | 293 | 293 | - | - | 316 | 316 | - | - |
| 2013 | SERC | 1293 | City of Troy AL | u.s. | 11,217 | 11,217 | - | - | 5,400 | 5,400 | - | - | 5,817 | 5,817 | - | - |
| 2013 | SERC | 1294 | City of West Memphis AR (West Memphis Utilities) | u.s. | 10,511 | 10,511 | - | - | 5,060 | 5,060 | - | - | 5,451 | 5,451 | - | - |
| 2013 | SERC | 1583 | Claiborne Electric Cooperative, Inc. | u.s. | 17,616 | 17,616 | - | - | 8,481 | 8,481 | - | - | 9,135 | 9,135 | - | - |
| 2013 | Stre | 1584 | Concordia Electric Cooperative, Inc. | u.s. | 6,936 | 6,936 | - | - | 3,339 | 3,339 | - | - | 3,597 | 3,597 | - | - |
| 2013 | SERC | 1283 | Dalton Utilities | u.s. | 41,605 | 41,605 | - | - | 20,030 | 20,030 | - | - | 21,575 | 21,575 | - | - |
| 2013 | SERC | 1585 | Dixie Electric Membership Corporation | u.s. | 59,596 | 59,596 | - | - | 28,692 | 28,692 | - | - | 30,904 | 30,904 | - | - |
| 2013 | SERC | 1295 | Dominion Virginia Power | u.s. | 2,252,493 | 2,252,493 | - | - | 1,084,334 | 1,084,434 | - | - | 1,168,059 | 1,168,059 | - | - |


| $\begin{aligned} & \text { Data } \\ & \text { Year } \end{aligned}$ | $\begin{gathered} \text { Regional } \\ \text { Entity } \end{gathered}$ | ID | Entity | Country | Total ERO Assessments (NERC, RE \& WIRAB Costs) |  |  |  | Total NERC Assessments |  |  |  | Total Regional Entity Assessments (Including WIRAB Assessments) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total |
| 2013 | Sterc | 1296 | Duke Energy Carolinas, LLC | u.s. | 2,036,668 | 2,036,668 | - | - | 980,528 | 980,528 | - | - | 1,056,140 | 1,056,140 | - | - |
| 2013 | serc | 1466 | Durant, MS | u.s. | 683 | 683 | - | - | 329 | 329 | - | - | 354 | 354 | - | - |
| 2013 | SERC | 1478 | LG\&E and KU Services Company as agent for LG\&E Company and KUCompany | u.s. | 919,535 | 919,535 | - | - | 442,698 | 442,698 | - | - | 476,836 | 476,836 | - | - |
| 2013 | serc | 1297 | East Kentucky Power Cooperative | u.s. | 350,135 | 350,135 | - | - | 168,568 | 168,568 | - | - | 181,567 | 181,567 | - | - |
| 2013 | serc | 1298 | East Mississippi Electric Power Association | u.s. | 12,238 | 12,238 | - | - | 5,892 | 5,892 | - | - | 6,346 | 6,346 | - | - |
| 2013 | serc |  | Electricities of North Carolina Inc | u.s. | 300,600 | 300,600 | - | - | 144,720 | 144,720 | - | - | 155,880 | 155,880 | - | - |
| 2013 | serc | 1300 | Energy United EMC | u.s. | 67,217 | 67,217 | - | - | 32,361 | 32,361 | - | - | 34,856 | 34,856 | - | - |
| 2013 | serc | 1301 | Entergy | u.s. | 2,899,683 | 2,899,683 | - | - | 1,396,015 | 1,396,015 | - | - | 1,503,668 | 1,503,668 | - | - |
| 2013 | SERC | 1302 | Fayetteville (NC) Public Works Commission | u.s. | 56,368 | 56,368 | - | - | 27,138 | 27,138 | - | - | 29,230 | 29,230 | - | - |
| 2013 | SERC | 1303 | Florida Public Utilities (FL Panhandle Load) | u.s. | 8,344 | 8,344 | - | - | 4,017 | 4,017 | - | - | 4,327 | 4,327 | - | - |
| 2013 | serc | 1304 | French Broad EMC | u.s. | 13,965 | 13,965 | - | - | 6,723 | 6,723 | - | - | 7,242 | 7,242 | - | - |
| 2013 | serc | 1305 | Georgia Power Company | u.s. | 2,261,399 | 2,261,399 | - | - | 1,088,722 | 1,088,722 | - | - | 1,172,678 | 1,172,678 | - | - |
| 2013 | serc | 1306 | Georgia System Optns Corporation | u.s. | 982,193 | 982,193 | - | - | 472,864 | 472,864 | - | - | 509,329 | 509,329 | - | - |
| 2013 | serc | 1479 | Greenwood (MS) Utilities Commission | u.s. | 7,651 | 7,651 | - | - | 3,684 | 3,684 | - | - | 3,968 | 3,968 | - | - |
| 2013 | SERC | 1307 | Greenwood (SC) Commissioners of Public Works | u.s. | 8,290 | 8,290 | - | - | 3,991 | 3,991 | - | - | 4,299 | 4,299 | - | - |
| 2013 | serc | 1308 | Gulf Power Company | u.s. | 301,968 | 301,968 | - | - | 145,379 | 145,379 | - | - | 156,590 | 156,590 | - | - |
| 2013 | SERC | 1586 | Haywood EMC | u.s. | 8,169 | 8,169 | - | - | 3,933 | 3,933 | - | - | 4,236 | 4,236 | - | - |
| 2013 | serc | 1309 | Illinois Municipal Electric Agency | u.s. | 50,604 | 50,604 | - | - | 24,362 | 24,362 | - | - | 26,241 | 26,241 | - | - |
| 2013 | SERC | 1480 | Itta Bena, MS | u.s. | 377 | 377 | - | - | 181 | 181 | - | - | 195 | 195 | - | - |
| 2013 | serc | 1587 | Jefferson Davis Electric Coooperative, Inc. | u.s. | 7,630 | 7,630 | - | - | 3,674 | 3,674 | - | - | 3,957 | 3,957 | - | - |
| 2013 | SERC | 1617 | Kentucky Municipal Power | u.s. | 18,862 | 18,862 | - | - | 9,081 | 9,081 | - | - | 9,781 | 9,781 | - | - |
| 2013 | serc | 1481 | Kosciusko, MS | u.s. | 1,835 | 1,835 | - | - | 883 | 883 | - | - | 952 | 952 | - | - |
| 2013 | serc | 1482 | Leland, MS | u.s. | 802 | 802 | - | - | 386 | 386 | - | - | 416 | 416 | - | - |
| 2013 | SERC | 1313 | McCormick Commission of Public Works | u.s. | 418 | 418 | - | - | 201 | 201 | - | - | 217 | 217 | - | - |
| 2013 | SERC | 1314 | Mississippi Power Company | u.s. | 278,924 | 278,924 | - | - | 134,284 | 134,284 | - | - | 144,639 | 144,639 | - | - |
| 2013 | SERC | 1630 | Mt. Carmel Public Utility | u.s. | 2,515 | 2,515 | - | - | 1,211 | 1,211 | - | - | 1,304 | 1,304 | - | - |
| 2013 | serc | 1315 | Municipal Electric Authority of Georgia | u.s. | 279,917 | 279,917 | - | - | 134,763 | 134,763 | - | - | 145,155 | 145,155 | - | - |
| 2013 | SERC | 1316 | N.C. Electric Membership Corp. | u.s. | 322,786 | 322,786 | - | - | 155,401 | 155,401 | - | - | 167,385 | 167,385 | - | - |
| 2013 | Stre | 1588 | Northeast Louisiana Power Coooperative, Inc. | u.s. | 8,285 | 8,285 | - | - | 3,989 | 3,989 | - | - | 4,296 | 4,296 | - | - |
| 2013 | SERC | 1574 | Northern Virginia Electric Cooperative | u.s. | 105,206 | 105,206 | - | - | 50,650 | 50,650 | - | - | 54,556 | 54,556 | - | - |
| 2013 | serc | 1319 | Old Dominion Electric Cooperative | u.s. | 154,384 | 154,384 | - | - | 74,326 | 74,326 | - | - | 80,058 | 80,058 | - | - |
| 2013 | SERC | 1618 | Osceola (Arkansas) Municipal Light and Power | u.s. | 4,866 | 4,866 | - | - | 2,343 | 2,343 | - | - | 2,524 | 2,524 | - | - |
| 2013 | SERC | 1320 | Owensboro (KY) Municipal Utilities | u.s. | 23,671 | 23,671 | - | - | 11,396 | 11,396 | - | - | 12,275 | 12,275 | - | - |
| 2013 | serc | 1322 | Piedmont EMC in Duke and Progress Areas | u.s. | 13,314 | 13,314 | - | - | 6,410 | 6,410 | - | - | 6,904 | 6,904 | - |  |
| 2013 | SERC | 1323 | Piedmont Municipal Power Agency (PMPA) | u.s. | 58,439 | 58,439 | - | - | 28,135 | 28,135 | - | - | 30,304 | 30,304 | - | - |
| 2013 | SERC | 1589 | Pointe Coupee Electric Memb. Corp. | u.s. | 7,130 | 7,130 | - | - | 3,433 | 3,433 | - | - | 3,698 | 3,698 | - | - |
| 2013 | SERC | 1266 | Powersouth Energy | u.s. | 220,293 | 220,293 | - | - | 106,057 | 106,057 | - | - | 114,236 | 114,236 | - | - |
| 2013 | serc | 1330 | Prairie Power, Inc. | u.s. | 41,664 | 41,664 | - | - | 20,059 | 20,059 | - | - | 21,605 | 21,605 | - | - |
| 2013 | SERC | 1324 | Progress Energy Carolinas | u.s. | 1,196,523 | 1,196,523 | - | - | 576,051 | 576,051 | - | - | 620,472 | 620,472 | - | - |
| 2013 | serc | 1325 | Rutherford EMC | u.s. | 34,904 | 34,904 | - | - | 16,804 | 16,804 | - | - | 18,100 | 18,100 | - | - |
| 2013 | SERC | 1631 | Sam Rayburn G\&T Electric Cooperative Inc. | u.s. | 46,951 | 46,951 | - | - | 22,604 | 22,604 | - | - | 24,347 | 24,347 | - | - |
| 2013 | serc | 1326 | South Carolina Electric \& Gas Company | u.s. | 590,258 | 590,258 | - | - | 284,172 | 284,172 | - | - | 306,086 | 306,086 | - | - |
| 2013 | strc | 1327 | South Carolina Public Service Authority | u.s. | 292,171 | 292,171 | - | - | 140,662 | 140,662 | - | - | 151,509 | 151,509 | - | - |
| 2013 | SERC | 1590 | South Louisiana Electric Cooperative Association | u.s. | 16,559 | 16,559 | - | - | 7,972 | 7,972 | - | - | 8,587 | 8,587 |  | - |
| 2013 | SERC | 1328 | South Mississippi Electric Power Association | u.s. | 271,750 | 271,750 | - | - | 130,831 | 130,831 | - | - | 140,920 | 140,920 | - | - |
| 2013 | SERC | 1329 | Southern Illinois Power Cooperative | u.s. | ${ }^{40,596}$ | ${ }^{40,596}$ | - | - | 19,544 | 19,544 | - | - | 21,051 | ${ }^{21,051}$ | - | - |
| 2013 | serc | 1591 | Southwest Louisiana Electric Membership Corporation | u.s. | 69,724 | 69,724 | - | - | 33,568 | 33,568 | - | - | 36,156 | 36,156 | - | - |
| 2013 | SERC | 1619 | Southwestern Electric Cooperative, Inc. | u.s. | 11,153 | 11,153 | - | - | 5,370 | 5,370 | - | - | 5,784 | 5,784 | \% | - |
| 2013 | SERC | 1331 | Tennessee Valley Authority | u.s. | 4,244,672 | 4,244,672 | - | - | 2,043,543 | 2,043,543 | - | - | 2,201,129 | 2,201,129 | - | - |
| 2013 | SERC | 1632 | Tex-La Electric Cooperative of Texas, Inc | u.s. | 5,470 | 5,470 | - | - | 2,633 | 2,633 | - | - | 2,836 | 2,836 | - | - |
| 2013 | SERC | 1332 | Tombigbee Electric Cooperative Inc. | u.s. | 3,471 | 3,471 | - | - | 1,671 | 1,671 | - | - | 1,800 | 1,800 | - | - |
| 2013 | SERC | 1594 | Town of Sharssburg, N.C. | u.s. | 520 | 520 | - | - | 251 | 251 | - | - | 270 | 270 | - | - |
| 2013 | SERC | 1595 | Town of Stantonsburg, N.C. JRO | u.s. | 2,028 | 2,028 | - | - | 977 | 977 | - | - | 1,052 | 1,052 | - | - |
| 2013 | SERC | 1333 | Town of Waynesville NC | u.s. | 2,388 | 2,388 | - | - | 1,150 | 1,150 | - | - | 1,238 | 1,238 | - | - |
| 2013 | SERC | 1334 | Town of Winnsboro sc | u.s. | 1,454 | 1,454 | - | - | 700 | 700 | - | - | 754 | 754 | - | - |
| 2013 | SERC | 1335 | Town of Winterville NC | u.s. | 1,426 | 1,426 | - | - | 687 | 687 | - | - | 740 | 740 | - | - |
| 2013 | SERC | 1597 | Washington-St.Tammany Electric Cooperative, Inc. | u.s. | 28,509 | 28,509 | - | $-$ | 13,725 | 13,725 | - | $-$ | 14,784 | 14,784 | - | - |




|  |  |  |  |  | Total ERO Assessments (NERC, RE \& WIRAB Costs) |  |  |  | Total Nerc Assessments |  |  |  | Total Regional Entity Assessments (Including WIRAB Assessments) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Data <br> Year | Regional Entity | ID | Entity | Country | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total |
| 2013 | wecc |  | City of McCleary | u.s. | 1,374 | 1,374 | - | - | 397 | 397 | - | - | 977 | 977 | - | - |
| 2013 | wecc |  | City of McMinnville | u.s. | 33,699 | 33,699 | - | - | 9,735 | 9,735 | - | - | 23,964 | 23,964 | - | - |
| 2013 | wecc |  | City of Mesa | u.s. | 11,440 | 11,440 | - | - | 3,305 | 3,305 | - | - | 8,135 | 8,135 | - | - |
| 2013 | wecc |  | City of Milton | u.s. | 2,647 | 2,647 | - | - | 765 | 765 | - | - | 1,883 | 1,883 | - | - |
| 2013 | wecc |  | City of Milton-Freewater | u.s. | 4,964 | 4,964 | - | - | 1,434 | 1,434 | - | - | 3,530 | 3,530 | - | - |
| 2013 | wECC |  | City of Monmouth | u.s. | 3,255 | 3,255 | - | - | 940 | 940 | - | - | 2,315 | 2,315 | - | - |
| 2013 | wecc |  | City of Needles | u.s. | 1,355 | 1,355 | - | - | 392 | 392 | - | - | 964 | 964 | - | - |
| 2013 | wecc |  | City of North Las Vegas | u.s. | 203 | 203 | - | - | 59 | 59 | - | - | 144 | 144 | - | - |
| 2013 | wecc |  | City of Page | u.s. | 4,034 | 4,034 | - | - | 1,165 | 1,165 | - | - | 2,869 | 2,869 | - | - |
| 2013 | wecc |  | City of Plummer | u.s. | 1,574 | 1,574 | - | - | 455 | 455 | - | - | 1,119 | 1,119 | - | - |
| 2013 | wecc |  | City of Port Angeles | u.s. | 32,027 | 32,027 | - | - | 9,252 | 9,252 | - | - | 22,775 | 22,775 | - | - |
| 2013 | wecc |  | City of Redding | u.s. | 34,979 | 34,979 | - | - | 10,105 | 10,105 | - | - | 24,874 | 24,874 | - | - |
| 2013 | wECC |  | City of Richland | u.s. | 39,119 | 39,119 | - | - | 11,301 | 11,301 | - | - | 27,819 | 27,819 | - |  |
| 2013 | wecc |  | City of Roseville | u.s. | 54,014 | 54,014 | - | - | 15,603 | 15,603 | - | - | 38,410 | 38,410 | - | - |
| 2013 | wecc |  | City of Shasta Lake | u.s. | 8,449 | 8,449 | - | - | 2,441 | 2,441 | - | - | 6,008 | 6,008 | - | - |
| 2013 | wecc |  | City of Sumas | u.s. | 1,356 | 1,356 | - | - | 392 | 392 | - | - | 965 | 965 | - | - |
| 2013 | wecc |  | City of Tacoma DBA Tacoma Power | u.s. | 14 | 14 | - | - | 4 | 4 | - | - | 10 | 10 | - | - |
| 2013 | wecc |  | City of Tacoma DBA Tacoma Power | u.s. | 219,122 | 219,122 | - | - | 63,299 | 63,299 | - | - | 155,822 | 155,822 | - |  |
| 2013 | wecc |  | City of Troy | u.s. | 768 | 768 | - | - | 222 | 222 | - | - | 546 | 546 | - | - |
| 2013 | wecc |  | City of Williams | u.s. | 1,712 | 1,712 | - | - | 495 | 495 | - | - | 1,218 | 1,218 | - | - |
| 2013 | wecc |  | Clark County Water Resources | u.s. | 3,387 | 3,387 | - | - | 978 | 978 | - | - | 2,408 | 2,408 | - | - |
| 2013 | wecc |  | Clark Public Utilities | u.s. | 196,257 | 196,257 | - | - | 56,694 | 56,694 | - | - | 139,563 | 139,563 | - | - |
| 2013 | wecc |  | Clatsknie PUD | u.s. | 41,251 | 41,251 | - | - | 11,916 | 11,916 | - | - | 29,334 | 29,334 | - |  |
| 2013 | wecc |  | Clearwater Cooperative, Inc | u.s. | 1,748 | 1,748 | - | - | 505 | 505 | - | - | 1,243 | 1,243 | - | - |
| 2013 | wecc |  | Clearwater Cooperative, Inc | u.s. | 7,466 | 7,466 | - | - | 2,157 | 2,157 | - | - | 5,309 | 5,309 | - | - |
| 2013 | wecc |  | Colorado River Commission of Nevada | u.s. | 38,152 | 38,152 | - | - | 11,021 | 11,021 | - | - | 27,131 | 27,131 | - | - |
| 2013 | wecc |  | Colorado Springs Utilities | u.s. | 2,675 | 2,675 | - | - | 773 | 773 | - | - | 1,902 | 1,902 | - | - |
| 2013 | wecc |  | Colorado Springs Utilities | u.s. | 203,906 | 203,906 | - | - | 58,904 | 58,904 | - | - | 145,002 | 145,002 | - | - |
| 2013 | wecc |  | Columbia Basin Electric Cooperative, Inc. | u.s. | 4,958 | 4,958 | - | - | 1,432 | 1,432 | - | - | 3,526 | 3,526 | - | - |
| 2013 | wecc |  | Columbia Falls Aluminum Company | u.s. | 200 | 200 | - | - | 58 | 58 | - | - | 142 | 142 | - |  |
| 2013 | wecc |  | Columbia Power Cooperative Association | u.s. | 979 | 979 | - | - | 283 | 283 | - | - | 696 | 696 | - | - |
| 2013 | WECC |  | Columbia River PUD | u.s. | 7,493 | 7,493 | - | - | 2,164 | 2,164 3 | - | - | 5,328 | 5,328 | - | $\checkmark$ |
| 2013 | WECC |  | Columbia River PUD | u.s. | 13,610 | 13,610 | - | - | 3,932 | 3,932 | - | - | 9,679 | 9,679 | - | - |
| 2013 | WECC WECC |  | Columbia Rural Electric Association (REA) Consolidatel Irrigation District No. 19 | u.s. u.s. S. | 14,575 | 14,575 272 | $:$ | $:$ | 4,210 79 | 4,210 79 | - | - | 10,364 194 | 10,364 194 | - | $:$ |
| 2013 2013 | WECC WECC |  | Consolidated Irrigation District No. 19 Consumers Power, Inc. | u.s. u.s. | 272 18,848 | 272 18,848 | - | $:$ | 79 5,445 | 79 5,445 | - | $:$ | 194 13,403 | 194 13,403 | - | $:$ |
| 2013 | wecc |  | Coos-Curry Electric Cooperative, Inc | U.s. | 15,539 | 15,539 | - | - | 4,489 | 4,489 | - | - | 11,050 | 11,050 | - | - |
| 2013 | wecc |  | Deseret Generation \& Transmission Cooperative | u.s. | 6,323 | 6,323 | - | - | 1,827 | 1,827 | - | - | 4,496 | 4,496 | - | - |
| 2013 | wecc |  | Douglas Electric Cooperative, Inc. | u.s. | 4,209 | 4,209 | - | - | 1,216 | 1,216 | - | - | 2,993 | 2,993 | - | - |
| 2013 | wecc |  | Douglas Palisades / PUD No. 1 of DC | u.s. | 844 | 844 | - | - | 244 | 244 | - | - | 600 | 600 | - | - |
| 2013 | wecc |  | El Paso Electric Company | u.s. | 365,354 | 365,354 | - | - | 105,543 | 105,543 | - | - | 259,811 | 259,811 | - | - |
| 2013 | wecc |  | Electrical District \#2 | u.s. | 7,856 | 7,856 | - | - | 2,270 | 2,270 | - | - | 5,587 | 5,587 | - | - |
| 2013 | wecc |  | Electrical District \#2-Coolidge Generating Station | u.s. | 402 | 402 | - | - | 116 | 116 | - | - | 286 | 286 | - | - |
| 2013 | wecc |  | Electrical District No. 6 of Pinal County - APS | u.s. | 109 | 109 | - | - | 31 | 31 | - | - | 78 | 78 | - | - |
| 2013 | wecc |  | Electrical District No. 7 of Maricopa County - APS | u.s. | 2,058 | 2,058 | - | - | 595 | 595 | - | - | 1,463 | 1,463 | - | - |
| 2013 | wecc |  | Electrical District No. 8 of Maricopa County - APS | u.s. | 12,110 | 12,110 | - | - | 3,498 | 3,498 | - | - | 8,612 | 8,612 | - | - |
| 2013 | WECC |  | Electrical Districts 1 \& 3 | U.S. | 25,321 | 25,321 | - | - | 7,315 | 7,315 | - | - | 18,006 | 18,006 | - | - |
| 2013 | wecc |  | Elmhurst Mutual Power \& Light Company | u.s. | 12,234 | 12,234 | - | - | 3,534 | 3,534 | - | - | 8,700 | 8,700 | - | - |
| 2013 | wecc |  | Emerald PUD | u.s. | 22,676 | 22,676 | - | - | 6,551 | 6,551 | - | - | 16,125 | 16,125 | - | - |
| 2013 | wecc |  | Energy Northwest | u.s. | 1,599 | 1,599 | - | - | 462 | 462 | - | - | 1,137 | 1,137 | - | - |
| 2013 | wecc |  | Eugene Water \& Electric Board | u.s. | 109,116 | 109,116 | - | - | 31,521 | 31,521 | - | - | 77,595 | 77,595 | - | - |
| 2013 | WECC |  | Fall River Rural Electric Cooperative, Inc. | u.s. | ${ }^{1}$ | 1 66192 | - | - | ${ }^{0}$ | ${ }^{0}$ | - | - | 47.070 | 47.070 | - | - |
| 2013 | WECC WECC |  | Flathead Electric Cooperative, Inc Frederickson Power LP | u.s. u.s. S. | 66,192 150 | 66,192 150 | - | - | 19,121 43 | 19,121 43 | $:$ | - | 47,070 107 | 47,070 107 | - | $:$ |
| 2013 2013 | WECC WECC |  | Frederickson Power LP Grand Valley Power | u.S. u.s. | 150 10,747 | 150 10,747 | - | - | 43 3,105 | 43 3,105 | - | - | 107 7,642 | 107 7,642 | - | $:$ |
| 2013 | WECC |  | Harney Electric Cooperative, Inc. | U.s. | 10,747 3,965 | 10,747 3,965 | : | : | 1,146 | 3,15 1,146 | $\div$ | - | 7,642 2,820 | 7,642 2,820 | - | - |
| 2013 | wecc |  | Harney Electric Cooperative, Inc. | u.s. | 4,319 | 4,319 | - | . | 1,248 | 1,248 | . | - | 3,071 | 3,071 | - | - |
| 2013 | wecc |  | Harquahala Valley Power Districts - APS | u.s. | 3,467 | 3,467 | - | - | 1,002 | 1,002 | - | - | 2,466 | 2,466 | - | - |
| 2013 | wECC |  | Hermiston Power LLC | u.s. | 85 | 85 | - | - | 25 | 25 | - | - | 61 | 61 | - | - |
| 2013 | wecc |  | Holy Cross Energy | u.s. | 53,298 | 53,298 | - | - | 15,397 | 15,397 | - | - | 37,901 | 37,901 | - | - |
| 2013 | wecc |  | Hood River Electric Cooperative | u.s. | 1,928 | 1,928 | - | - | 557 | 557 | - | - | 1,371 | 1,371 | - | - |


| $\begin{aligned} & \text { Data } \\ & \text { Y } \end{aligned}$ | $\begin{gathered} \text { Regional } \\ \text { Entity } \\ \hline \end{gathered}$ | ID | Entity | Country | Total ERO Assessments (NERC, RE \& WIRAB Costs) |  |  |  | Total NERC Assessments |  |  |  | Total Regional Entity Assessments (Including WIRAB Assessments) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total |
| 2013 | wecc |  | Idaho County Light and Power Cooperative Association, Inc. | u.s. | 2,594 | 2,594 | - | - | 749 | 749 | - | - | 1,845 | 1,845 | - | - |
| 2013 | wecc |  | Idaho Power Company | u.s. | 714,630 | 714,630 | - | - | 206,441 | 206,441 | - | - | 508,189 | 508,189 | - | - |
| 2013 | wecc |  | Imperial Irigation District | u.s. | 160,131 | 160,131 | - | - | 46,258 | 46,258 | - | - | 113,872 | 113,872 | - | - |
| 2013 | wecc |  | Inland Power and Light Company | u.s. | 20,898 | 20,898 | - | - | 6,037 | 6,037 | - | - | 14,861 | 14,861 | - |  |
| 2013 | wecc |  | Inland Power and Light Company | u.s. | 21,857 | 21,857 | - | - | 6,314 | 6,314 | - | - | 15,543 | 15,543 | - | - |
| 2013 | wecc |  | Intermountain Rural Electric Association | u.s. | 94,197 | 94,197 | - | - | 27,212 | 27,212 | - | - | 66,986 | 66,986 | - | - |
| 2013 | wecc |  | Kaiser Aluminum Fabricated Products LLC | u.s. | 13,624 | 13,624 | - | - | 3,936 | 3,936 | - | - | 9,689 | 9,689 | - | - |
| 2013 | wecc |  | Kootenai Electric Cooperative, Inc. | u.s. | 20,536 | 20,536 | - | - | 5,932 | 5,932 | - | - | 14,603 | 14,603 | - | - |
| 2013 | wecc |  | Lakeview Light \& Power | u.s. | 11,994 | 11,994 | - | - | 3,465 | 3,465 | - | - | 8,529 | 8,529 | - | - |
| 2013 | wecc |  | Lane Electric Cooperative, Inc. | u.s. | 10,073 | 10,073 | - | - | 2,910 | 2,910 | - | - | 7,163 | 7,163 | - | - |
| 2013 | wecc |  | Las Vegas Valley Water District | u.s. | 4,086 | 4,086 | - | - | 1,180 | 1,180 | - | - | 2,906 | 2,906 | - | - |
| 2013 | wecc |  | Lincoln Electric Cooperative, Inc. | u.s. | 5,180 | 5,180 | - | - | 1,496 | 1,496 | - | - | 3,684 | 3,684 | - | - |
| 2013 | wecc |  | Los Angeles Department of Water and Power | u.s. | 1,262,408 | 1,262,408 | - | - | 364,682 | 364,682 | - | - | 897,726 | 897,726 | - | - |
| 2013 | wecc |  | Lost River Electric Cooperative, Inc. | u.s. | 1 | 1 | - | - | 0 | 0 | - | - |  | 1 | - | - |
| 2013 | wecc |  | Lower Valley Energy, Inc. | u.s. | 4 | 4 | - | - | 1 | 1 | - | - | 3 | 3 | - | - |
| 2013 | wecc |  | Maricopa County Municipal Water Conservation Dist No. 1 - APS | u.s. | 2,290 | 2,290 | - | - | 662 | 662 | - | - | 1,629 | 1,629 | - | - |
| 2013 | wecc |  | McMullen Valley Water Conservation \& Drainage District - APS | u.s. | 3,056 | 3,056 | - | - | 883 | 883 | - | - | 2,173 | 2,173 | - | - |
| 2013 | wecc |  | Merced Irrigation District | u.s. | 20,570 | 20,570 | - | - | 5,942 | 5,942 | - | - | 14,628 | 14,628 | - | - |
| 2013 | wecc |  | Midstate Electric Cooperative, Inc. | u.s. | 18,113 | 18,113 | - | - | 5,233 | 5,233 | - | - | 12,881 | 12,881 | - | - |
| 2013 | wecc |  | Mission Valley Power | u.s. | 18,085 | 18,085 | - | - | 5,224 | 5,224 | - | - | 12,860 | 12,860 | - | - |
| 2013 | wecc |  | Modern Electric Water Company | u.s. | 10,269 | 10,269 | - | - | 2,966 | 2,966 | - | - | 7,302 | 7,302 | - | - |
| 2013 | wecc |  | Modesto Irigation District | u.s. | 112,728 | 112,728 | - | - | 32,565 | 32,565 | - | - | 80,163 | 80,163 | - |  |
| 2013 | wecc |  | Montana-Dakota Utilities Co. | u.s. | 896 | 896 | - | - | 259 | 259 | - | - | 637 | 637 | - | - |
| 2013 | wecc |  | Mt. Wheeler Power | u.s. | 24,525 | 24,525 | - | - | 7,085 | 7,085 | - | - | 17,440 | 17,440 | - | - |
| 2013 | wecc |  | Municipal Energy Agency of Nebraska | u.s. | 8,732 | 8,732 | - | - | 2,522 | 2,522 | - | - | 6,209 | 6,209 | - | - |
| 2013 | wecc |  | Municipal Energy Agency of Nebraska | u.s. | 29,274 | 29,274 | - | - | 8,457 | 8,457 | - | - | 20,818 | 20,818 | - | - |
| 2013 | wecc |  | Navajo Agricultural Products Industry (NAPI) | u.s. | 48 | 48 | - | - | 14 | 14 | - | - | 34 | 34 | - | - |
| 2013 | wecc |  | Navajo Tribal Utility Authority | u.s. | 2,378 | 2,378 | - | - | 687 | 687 | - | - | 1,691 | 1,691 | - | - |
| 2013 | wecc |  | Navajo Tribal Utility Authority | u.s. | 12,512 | 12,512 | - | - | 3,614 | 3,614 | - | - | 8,898 | 8,898 | - | - |
| 2013 | wecc |  | Navopache Electric Coooperative, Inc. | u.s. | 16,210 | 16,210 | - | - | 4,683 | 4,683 | - | - | 11,527 | 11,527 | - | - |
| 2013 | wecc |  | Nebraska Public Power Marketing | u.s. | 255 | 255 | - | - | 74 | 74 | - | - | 182 | 182 | - | - |
| 2013 | wecc |  | Nespelem Valley Electric Cooperative, Inc. | u.s. | 2,555 | 2,555 | - | - | 738 | 738 | - | - | 1,817 | 1,817 | - | - |
| 2013 | wecc |  | Nevada Power Company dba NV Energy | u.s. | 1,162,747 | 1,162,747 | - | - | 335,892 | 335,892 | - | - | 826,855 | 826,855 | - | - |
| 2013 | wecc |  | Noble Americas Energy Solutions, LLC | u.s. | 73,190 | 73,190 | - | - | 21,143 | 21,143 | - | - | 52,047 | 52,047 | - |  |
| 2013 | wecc |  | Northern Lights, Inc. | u.s. | 1,594 | 1,594 | - | - | 460 | 460 | - | - | 1,133 | 1,133 | - | - |
| 2013 | WECC |  | Northern Lights, Inc. | u.s. | 11,491 | 11,491 | - | - | 3,319 | 3,319 | - | - | 8,171 | 8,171 | - | - |
| 2013 | WECC |  | Northerr Wasco County PUD | u.s. | 24,338 | 24,338 | - | - | 7,031 3,048 | 7,031 3,048 | - | - | $17,307$ | $17,307$ | - | : |
| $2013$ | WECC WECC |  | NorrthWestern Corp. dba NorthWestern Energy, LLC NorrtW Western Corp. dba NorthWestern Energy, Luc | u.s.s. u.s. | 10,550 400,935 | 10,550 400,935 | - | - | 3,048 115,821 | 3,048 115,821 | : | - | $\begin{array}{r} 7,502 \\ 285.113 \end{array}$ | 7,502 285,113 | - | : |
| 2013 | WECC |  | Norrth Western Corp. Cba Norrth Western Energy, LLC Ohop Mutual Light Company | U.s. | 400,935 | 400,935 | : | : | 15,821 1,097 | 115,821 1,097 | $:$ | : | 285,173 2,700 | 285,173 2,700 | - | - |
| 2013 | wecc |  | Orcas Power and Light Cooperative | u.s. | 9,530 | 9,530 | - | - | 2,753 | 2,753 | - | - | 6,777 | 6,777 | - | - |
| 2013 | wecc |  | Oregon Trail Electric Consumers Cooperative, Inc. | u.s. | 15,490 | 15,490 | - | - | 4,475 | 4,475 | - | - | 11,015 | 11,015 | - | - |
| 2013 | wecc |  | Overton Power District No. 5 | u.s. | 16,668 | 16,668 | - | - | 4,815 | 4,815 | - | - | 11,853 | 11,853 | - | - |
| 2013 | wecc |  | Pacificorp | u.s. | 82 | 82 | - | - | 24 | 24 | - | - | 58 | 58 | - | - |
| 2013 | wecc |  | Pacificorp | u.s. | 94 | 94 | - | - | 27 | 27 | - | - | 67 | 67 | - | - |
| 2013 | wecc |  | Pacificorp | u.s. | 3,079 | 3,079 | - | - | 889 | 889 | - | - | 2,190 | 2,190 | - | - |
| 2013 | wecc |  | Pacificorp | u.s. | 5,085 | 5,085 | - | - | 1,469 | 1,469 | - | - | 3,616 | 3,616 | - | - |
| 2013 | wecc |  | Pacificorp | u.s. | 2,212,492 | 2,212,492 | - | - | 639,140 | 639,140 | - | - | 1,573,352 | 1,573,352 | - | - |
| 2013 | wecc |  | Pacificorp West (PACW) | u.s. | 933,125 | 933,125 | - | - | 269,559 | 269,559 | - | - | 663,566 | 663,566 | - | - |
| 2013 | wecc |  | Parkland Light and Water Company | u.s. | 5,349 | 5,349 | - | - | 1,545 | 1,545 | - | - | 3,804 | 3,804 | - | - |
| 2013 | wecc |  | Pend Oreill County PUD No. 1 | u.s. | 44,456 | 44,456 | - | - | 12,842 | 12,842 | - | - | 31,613 | 31,613 | - | - |
| 2013 | wecc |  | Peninsula Light Company, Inc. | u.s. | 26,598 | 26,598 | - | - | 7,684 | 7,684 | - | - | 18,915 | 18,915 | - | - |
| 2013 | wecc |  | Platte River Power Authority | u.s. | 141,895 | 141,895 | - | - | 40,990 | 40,990 | - | - | 100,905 | 100,905 | - | - |
| 2013 | wecc |  | Port of Seattle - Seattl--Tacoma International Airport | u.s. | 6,175 | 6,175 | - | - | 1,784 | 1,784 | - | - | 4,391 | 4,391 | - | - |
| 2013 | wecc |  | Port Townsend Paper Corporation | u.s. | 7,292 | 7,292 | - | - | 2,106 | 2,106 | - | - | 5,185 | 5,185 | - | - |
| 2013 | wecc |  | Portland General Electric Company | u.s. | 813,463 | 813,463 | - | - | 234,991 | 234,991 | - | - | 578,471 | 578,471 | - | - |
| 2013 | wecc |  | Public Service Company of Colorado (Xcel) | u.s. | 1,557 | 1,557 | - | - | 450 | 450 | - | - | 1,107 | 1,107 | - | - |
| 2013 | wecc |  | Public Service Company of Colorado (Xcel) | u.s. | 1,160,561 | 1,160,561 | - | - | 335,260 | 335,260 | - | - | 825,300 | 825,300 | - | - |
| 2013 | WECC |  | Public Service Company of New Mexico | u.s. | 471,761 | 471,761 | - | - | 136,281 | 136,281 | - | - | 335,480 | $335,480$ | - | - |
| $\begin{aligned} & 2013 \\ & 2013 \\ & 2013 \end{aligned}$ | WECC WECC |  | Public Utility District No. 1 of Chelan County Puo No. 1 of Asotin County | u.S. u.S. | 176,048 13 | 176,048 13 | $:$ | $:$ | 50,856 4 | 50,856 4 | $:$ | $:$ | 125,192 ${ }_{9}$ | $\begin{array}{r} 125,192 \\ 9 \end{array}$ | $:$ | $:$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| $\begin{aligned} & \text { Data } \\ & \text { Year } \end{aligned}$ | $\begin{gathered} \text { Regional } \\ \text { Entity } \\ \hline \end{gathered}$ | ID | Entity | Country | Total ERO Assessments (NERC, RE \& WIRAB Costs) |  |  |  | Total NERC Assessments |  |  |  | Total Regional Entity Assessments (Including WIRAB Assessments) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total |
| 2013 | WECC |  | PUD No. 1 of Asotin County | u.s. | 218 | 218 | - | - | 63 | 63 | - | - | 155 | 155 | - | - |
| 2013 | wecc |  | PUD No. 1 of Benton County | u.s. | 77,561 | 77,561 | - | - | 22,406 | 22,406 | - | - | 55,155 | 55,155 | - | - |
| 2013 | wecc |  | PUD No. 1 of Clallam County | u.s. | 29,759 | 29,759 | - | - | 8,597 | 8,597 | - | - | 21,162 | 21,162 | - | - |
| 2013 | wecc |  | PUD No. 1 of Cowlitz County | u.s. | 229,502 | 229,502 | - | - | 66,298 | 66,298 | - | - | 163,204 | 163,204 | - | - |
| 2013 | wecc |  | PUD No. 1 of Douglas County | u.s. | 390 | 390 | - | - | 113 | 113 | - | - | 278 | 278 | - | - |
| 2013 | wecc |  | PUD No. 1 of Douglas County | u.s. | 65,016 | 65,016 | - | - | 18,782 | 18,782 | - | - | 46,234 | 46,234 | - | - |
| 2013 | wecc |  | PUD No. 1 of Ferry County | u.s. | 4,769 | 4,769 | - | - | 1,378 | 1,378 | - | - | 3,391 | 3,391 | - | - |
| 2013 | wecc |  | PUD No. 1 of franklin County | u.s. | 46,594 | 46,594 | - | - | 13,460 | 13,460 | - | - | 33,134 | 33,134 | - | - |
| 2013 | wecc |  | PUD No. 1 of Grays Harbor | u.s. | 51,888 | 51,888 | - | - | 14,889 | 14,989 | - | - | 36,898 | 36,898 | - | - |
| 2013 | wecc |  | PUD No. 1 of Jefferson County | u.s. | 10,775 | 10,775 | - | - | 3,113 | 3,113 | - | - | 7,662 | 7,662 | - | - |
| 2013 | wecc |  | PUD No. 1 of Kittitas County | u.s. | 718 | 718 | - | - | 207 | 207 | - | - | 510 | 510 | - | - |
| 2013 | wecc |  | PUD No. 1 of Kittitas County | u.s. | 3,311 | 3,311 | - | - | 956 | 956 | - | - | 2,354 | 2,354 | - | - |
| 2013 | wecc |  | PUD No. 1 of Klickitat County | u.s. | 13,151 | 13,151 | - | - | 3,799 | 3,799 | - | - | 9,352 | 9,352 | - | - |
| 2013 | wecc |  | PUD No. 1 of Lewis County | u.s. | 41,039 | 41,039 | - | - | 11,855 | 11,855 | - | - | 29,184 | 29,184 | - | - |
| 2013 | wecc |  | PUD No. 1 of Mason County | u.s. | 3,427 | 3,427 | - | - | 990 | 990 | - | - | 2,437 | 2,437 | - | - |
| 2013 | wecc |  | PUD No. 1 of Skamania County | u.s. | 5,892 | 5,892 | - | - | 1,702 | 1,702 | - | - | 4,190 | 4,190 | - | - |
| 2013 | wecc |  | PUD No. 1 of Snohomish County | u.s. | 298,439 | 298,439 | - | - | 86,213 | 86,213 | - | - | 212,227 | 212,227 | - | - |
| 2013 | wecc |  | PUD No. 1 of Wahkiakum County | u.s. | 1,928 | 1,928 | - | - | 557 | 557 | - | - | 1,371 | 1,371 |  | - |
| 2013 | wecc |  | PUD No. 1 of Whatcom County | u.s. | 218 | 218 | - | - | 63 | 63 | - | - | 155 | 155 | - | - |
| 2013 | wecc |  | PUD No. 1 of Whatcom County | u.s. | 9,809 | 9,809 | - | - | 2,834 | 2,834 | - | - | 6,975 | 6,975 | - | - |
| 2013 | wecc |  | PUD No. 2 of Grant County | u.s. | 2,184 | 2,184 | - | - | 631 | 631 | - | - | 1,553 | 1,553 | - | - |
| 2013 | wecc |  | PUD No. 2 of Grant County | u.s. | 4,097 | 4,097 | - | - | 1,183 | 1,183 | - | - | 2,913 | 2,913 | - | - |
| 2013 | wecc |  | PUD No. 2 of Grant County | u.s. | 167,895 | 167,895 | - | - | 48,501 | 48,501 | - | - | 119,394 | 119,394 | - | - |
| 2013 | wecc |  | PUD No. 2 of Pacific County | u.s. | 13,358 | 13,358 | - | - | 3,859 | 3,859 | - | - | 9,499 | 9,499 | - | - |
| 2013 | wecc |  | Pud No. 3 of Mason County | u.s. | 30,560 | 30,560 | - | - | 8,828 | 8,828 | - | - | 21,732 | 21,732 | - | - |
| 2013 | wecc |  | Puget Sound Energy, Inc. | u.s. | 1,068,728 | 1,068,728 | - | - | 308,732 | 308,732 | - | - | 759,996 | 759,996 | - | - |
| 2013 | wecc |  | Raft River Electric Cooperative | u.s. | 2 | 2 | - | - | , | 1 | - | - | 1 | 1 | - | - |
| 2013 | wecc |  | Raton Public Service | u.s. | 2,262 | 2,262 | - | - | 654 | 654 | - | - | 1,609 | 1,609 | - | - |
| 2013 | wecc |  | Roosevelt Irrigation District - APS | u.s. | 1,655 | 1,655 | - | - | 478 | 478 | - | - | 1,177 | 1,177 | - |  |
| 2013 | wecc |  | Sacramento Municipal Utility District | u.s. | 490,975 | 490,975 | - | - | 141,832 | 141,832 | - | - | ${ }^{349,143}$ | 349,143 | - |  |
| 2013 | wecc |  | Salem Electric | u.s. | 14,483 | 14,483 | - | - | 4,184 | 4,184 | - | - | 10,299 | 10,299 | - | - |
| 2013 | wecc |  | Salt River Project | u.s. | 1,264,385 | 1,264,385 | - | - | 365,253 | 365,253 | - | - | 899,132 | 899,132 | - | - |
| 2013 | wecc |  | San Carlos Indian Irrigation Project | u.s. | 0 | 0 | - | - | 0 | 0 | - | - | 0 | 0 | - | - |
| 2013 | wecc |  | Seattle City Light | u.s. | 438,902 | 438,902 | - | - | 126,789 | 126,789 | - | - | 312,113 | 312,113 | - |  |
| 2013 | wecc |  | Sierra Pacific Power Company dba NV Energy | u.s. | 486,142 | 486,142 | - | - | 140,436 | 140,436 | - | - | 345,706 | 345,706 | - | - |
| 2013 | wecc |  | Silver State Energy - c/o Colorado River Commission of Nevada | u.s. | 22,526 | 22,526 | - | - | 6,507 | 6,507 | - | - | 16,019 | 16,019 | - | - |
| 2013 | wecc |  | Southern Montana Electric Generation \& Transmission | u.s. | 22,851 | 22,851 | - | - | 6,601 | 6,601 | - | - | 16,250 | 16,250 | - | - |
| 2013 | wecc |  | Southern Nevada Water Authority | u.s. | 5,176 | 5,176 | - | - | 1,495 | 1,495 | - | - | 3,681 | 3,681 | - |  |
| 2013 | wecc |  | Southwest Transmission Cooperative, Inc. | u.s. | 88,001 | 88,001 | - | - | 25,422 | 25,422 | - | - | 62,580 | 62,580 | - |  |
| 2013 | wecc |  | Springfield Utility Board | u.s. | 37,943 | 37,943 | - | - | 10,961 | 10,961 | - | - | 26,982 | 26,982 | - | - |
| 2013 | wecc |  | Surprise Valley Electrification Corporation | u.s. | 1,671 | 1,671 | - | - | 483 | 483 | - | - | 1,189 | 1,189 | - | - |
| 2013 | wecc |  | Tanner Electric Cooperative | u.s. | 4,335 | 4,335 | - | - | 1,252 | 1,252 | - | - | 3,082 | 3,082 | - | - |
| 2013 | wecc |  | The Incorporated County of Los Alamos | u.s. | 15,923 | 15,923 | - | - | 4,600 | 4,600 | - | - | 11,323 | 11,323 | - |  |
| 2013 | wecc |  | Tillamook People's Utility District | u.s. | 16,422 | 16,422 | - | - | 4,744 | 4,744 | - | - | 11,678 | 11,678 | - | - |
| 2013 | wecc |  | Tohono O'Odham Utility Authority | u.s. | 2,935 | 2,935 | - | - | 848 | 848 | - | - | 2,087 | 2,087 | - | - |
| 2013 | wecc |  | Tonopah Irrigation District - APS | u.s. | 993 | 993 | - | - | 287 | 287 | - | - | 706 | 706 | - | - |
| 2013 | wecc |  | Town of Center | u.s. | 915 | 915 |  | - | 264 | 264 | - | - | 651 | 651 | - | - |
| 2013 | wecc |  | Town of Coulee | u.s. | 762 | 762 | - | - | 220 | 220 | - | - | 542 | 542 | - | - |
| 2013 | wecc |  | Town of Eatonville | u.s. | 1,228 | 1,228 | - | - | 355 | 355 | - | - | 873 | 873 | - | - |
| 2013 | wecc |  | Town of Fredonia | u.s. | 479 | 479 | - | - | 138 | 138 | - | - | 341 | 341 | - | - |
| 2013 | wecc |  | Town of Steilacoom | u.s. | 1,808 | 1,808 | - | - | 522 | 522 | - | - | 1,285 | 1,285 | - | - |
| 2013 | wecc |  | Town of Wickenburg | u.s. | 1,162 | 1,162 |  |  | 336 | 336 | - |  | 826 | 826 | - | - |
| 2013 | wecc |  | Tri-State Generation \& Transmission Assoc. Inc - Reliability | u.s. | 90,197 | 90,197 |  |  | 26,056 | 26,056 | - | - | 64,141 | 64,141 | - | - |
| 2013 | wecc |  | Tri-State Generation \& Transmission Assoc. Inc - Reliability | u.s. | 324,496 | 324,496 |  |  | 93,740 | 93,740 | - | - | 230,756 | 230,756 | - | - |
| 2013 | wecc |  | Tri-State Generation \& Transmission Association, Inc. | u.s. | 115,584 | 115,584 | - | - | 33,390 | 33,390 | - | - | 82,194 | 82,194 | - | - |
| 2013 | wecc |  | Truckee Donner Public Utility District | u.s. | 6,747 | 6,747 | - | - | 1,949 | 1,949 | - | - | 4,798 | 4,798 | - | - |
| 2013 | wecc |  | Tucson Electric Power Company | u.s. | 659,749 | 659,749 | - | - | 190,587 | 190,587 | - | - | 469,162 | 469,162 | - | - |
| 2013 | wecc |  | Turlock lrigation District | u.s. | 93,381 | 93,381 | - | - | 26,976 | 26,976 | - | - | 66,406 | 66,406 | - | - |
| 2013 | wecc |  | U.S. Army Yuma Proving Ground | u.s. | 714 | 714 | - | - | 206 | 206 | - | - | 508 | 508 | - | - |
| 2013 | wecc |  | U.S. BOR Columbia Basin | u.s. | 1,459 | 1,459 | - | - | 421 | 421 | - | - | 1,037 | 1,037 | - | - |
| 2013 | wecc |  | U.S. BOR East Greenacres (Rathdrum) | u.s. | 183 | 183 | - | - | 53 | 53 | - | - | 130 | 130 | - | - |


|  |  |  |  |  | Total ERO Assessments (NERC, RE \& WIRAB Costs) |  |  |  | Total NERC Assessments |  |  |  | Total Regional Entity Assessments (Including WIRAB$\qquad$ Assessments) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Data } \\ & \text { Year } \\ & \hline \end{aligned}$ | Regional Entity | ID | Entity | Country | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total |
| 2013 | wecc |  | U.S. Bor Spokane Indian Development' | u.s. | 137 | 137 | - | - | 40 | 40 | - | - | 98 | 98 | - | - |
| 2013 | wecc |  | U.S. BOR The Dalles Project | u.s. | 802 | 802 | - | - | 232 | 232 | - | - | 570 | 570 | - | - |
| 2013 | wecc |  | U.S. DOE National Energy Technology Laboratory | u.s. | 211 | 211 | - | - | 61 | 61 | - | - | 150 | 150 | - | - |
| 2013 | wecc |  | Umatilla Electric Cooperative Association | u.s. | 49,858 | 49,858 | - | - | 14,403 | 14,403 | - | - | 35,455 | 35,455 | - | - |
| 2013 | wecc |  | Unit B Irrigation District | u.s. | 1 | 1 | - | - | 0 | 0 | - | - | 1 | 1 | - | - |
| 2013 | wecc |  | US Air Force Base, Fairchild | u.s. | 2,145 | 2,145 | - | - | 620 | 620 | - | - | 1,526 | 1,526 | - | - |
| 2013 | wecc |  | US Dept of Energy - Kirtland AFB | u.s. | 17,965 | 17,965 | - | - | 5,190 | 5,190 | - | - | 12,775 | 12,775 | - | . |
| 2013 | wecc |  | usdoe Richland | u.s. | 8,207 | 8,207 | - | - | 2,371 | 2,371 | - | - | 5,836 | 5,836 | - | - |
| 2013 | wecc |  | USN Naval Station, Bremerton | u.s. | 10,963 | 10,963 | - | - | 3,167 | 3,167 | - | - | 7,796 | 7,796 | - | - |
| 2013 | wecc |  | USN Naval Station, Everett | u.s. | 477 | 477 | - | - | 138 | 138 | - | - | 339 | 339 | - | - |
| 2013 | wecc |  | USN Submarine Base, Bangor | u.s. | 7,447 | 7,447 | - | - | 2,151 | 2,151 | - | - | 5,296 | 5,296 | - |  |
| 2013 | WECC |  | Vera Water and Power | u.s. | 10,273 | 10,273 | - | - | 2,968 | 2,968 | - | - | 7,305 | 7,305 | - | - |
| 2013 | wecc |  | Vigilante Electric Cooperative, Inc. | u.s. | 695 | 695 | - | - | 201 | 201 | - | - | 494 | 494 | - | - |
| 2013 | wecc |  | Wasco Electric Cooperative | u.s. | 4,243 | 4,243 | - | - | 1,226 | 1,226 | - | - | 3,017 | 3,017 | - | - |
| 2013 | wecc |  | Wells Rural Electric Cooperative | u.s. | 29,409 | 29,409 | - | - | 8,495 | 8,495 | - | - | 20,913 | 20,913 | - |  |
| 2013 | wecc |  | Wellton-Mohawk lrigation \& Drainage District | u.s. | 18 | 18 | - | - | 5 | 8, | - | - | 12 | 12 | - | - |
| 2013 | wecc |  | West Oregon Electric Cooperative, Inc. | u.s. | 562 | 562 | - | - | 162 | 162 | - | - | 400 | 400 | - | - |
| 2013 | WECC |  | West Oregon Electric Cooperative, Inc. | u.s. | 2,468 | 2,468 | - | - | 713 | 713 | - | - | 1,755 | 1,755 | - | - |
| 2013 | wecc |  | Western Area Power - Loveland, co | u.s. | 15,926 | 15,926 | - | - | 4,601 | 4,601 | - | - | 11,326 | 11,326 | - | - |
| 2013 | WECC |  | Western Area Power - Loveland, co | u.s. | 89,857 | 89,857 | - | - | 25,958 | 25,958 | - | - | 63,899 | 63,899 | - |  |
| 2013 | wecc |  | Western Area Power Administration - CRSP | u.s. | 89,812 | 89,812 | - | - | 25,945 | 25,945 | - | - | 63,868 | 63,868 | - | - |
| 2013 | wecc |  | Western Area Power Administration - Sierra Nevada Region | u.s. | 57,926 | 57,926 | - | - | 16,734 | 16,734 | - | - | 41,192 | 41,192 | - | - |
| 2013 | wecc |  | Western Area Power Administration-Desert Southwest Region | u.s. | 141,080 | 141,080 | - | - | 40,755 | 40,755 | - | - | 100,325 | 100,325 | - | - |
| 2013 | wecc |  | Western Area Power Administration-Upper Great Plains Region | u.s. | 336 | 336 | - | - | 97 | 97 | - | - | 239 | 239 | - | - |
| 2013 | wecc |  | Western Area Power Administration-Upper Great Plains Region | u.s. | 17,112 | 17,112 | - | - | 4,943 | 4,943 | - | - | 12,169 | 12,169 | - | - |
| 2013 | wecc |  | Wyoming Municipal Power Agency | u.s. | 12,260 | 12,260 | - | - | 3,542 | 3,542 | - | - | 8,718 | 8,718 | - | - |
| 2013 | wecc |  | Yakama Power | u.s. | 950 | 950 | - | - | 274 | 274 | - | - | 675 | 675 | - |  |
| 2013 | wecc |  | Yampa Valley Electric Association | u.s. | 27,582 | 27,582 | - | - | 7,968 | 7,968 | - | - | 19,614 | 19,614 | - | - |
| 2013 | wecc |  | Yuma Irrigation District | u.s. | 136 | 136 | - | - | 39 | 39 | - | - | 97 | 97 | - | - |
| 2013 | WECC |  | Yuma-Mesa Irrigation District | u.s. | 8 | 8 | - | - | 2 | 2 | - | - |  | 5 | - | - |
|  |  |  | TOTAL WECC |  | 36,829,694 | 32,246,493 | 4,069,607 | 513,594 | 10,739,401 | 9,315,301 | 1,273,976 | 150,123 | 26,090,293 | 22,931,192 | 2,795,630 | 363,471 |
| total ero |  |  |  |  | 163,582,428 | 148,273,401 | 14,795,433 | 513,594 | 55,308,375 | 50,046,840 | 5,111,411 | 150,123 | 108,274,053 | 98,226,561 | 9,684,022 | $\underline{363,471}$ |
| Summary by Regional Entity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2013 | FRCC |  |  |  | 8,858,675 | 8,858,675 | - | - | 2,795,837 | 2,795,837 | - | - | 6,062,838 | 6,062,838 | - | - |
| 2013 | MRO |  |  |  | 13,094,003 | 10,913,550 | 2,180,453 | - | 3,667,984 | 3,066,780 | 601,204 | - | 9,426,019 | 7,846,770 | 1,579,249 | - |
| 2013 | NPCC |  |  |  | 21,005,353 | 12,459,980 | 8,545,373 | - | 6,936,475 | 3,700,244 | 3,236,231 | - | 14,068,878 | 8,759,736 | 5,309,142 | - |
| 2013 | RF |  |  |  | 30,194,311 | 30,194,311 | - | - | 11,480,414 | 11,480,414 | - | - | 18,713,897 | 18,713,897 | - | - |
| 2013 | SERC |  |  |  | 26,479,019 | 26,479,019 | - | - | 12,747,985 | 12,747,985 | - | - | 13,731,034 | 13,731,034 | - | - |
| 2013 | SPP |  |  |  | 12,417,776 | 12,417,776 | - | - | 2,737,128 | 2,737,128 | - | - | 9,680,648 | 9,680,648 | - | - |
| 2013 | TRE |  |  |  | 14,703,597 | 14,703,597 | - | - | 4,203,151 | 4,203,151 | - | 1 | 10,500,446 | 10,50, 446 | , | - |
| 2013 | wecc |  |  |  | 36,829,694 | 32,246,493 | 4,069,607 | 513,594 | 10,739,401 | 9,315,301 | 1,273,976 | 150,123 | 26,090,293 | 22,931,192 | 2,795,630 | 363,471 |
| Total |  |  |  |  | 163,582,428 | 148,273,401 | 14,795,433 | 513,594 | 55,308,375 | 50,046,840 | 5,111,411 | 150,123 | 108,274,053 | 98,226,561 | 9,684,022 | 363,471 |


| $\begin{aligned} & \text { Data } \\ & \text { Y } \end{aligned}$ | $\begin{aligned} & \text { Regional } \\ & \text { Entity } \end{aligned}$ | 10 | Entity | Country | Total NERC Assessments |  |  |  | NERC NEL Assessments |  |  |  | Penalty Sanctions |  | NERC Compliance Credits |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Total | US Total | Canada Total | $\begin{gathered} \text { Mexico } \\ \text { Total } \end{gathered}$ |
| 2013 | frcc | 1074 | Alachua, City of | u.s. | 1,522 | 1,522 | . | - | 1,513 | 1,513 | - | . | (35) | (35) | 44 | 44 | - | - |
| 2013 | frcc | 1075 | Bartow, City of | u.s. | 3,430 | 3,430 | . | . | 3,411 | 3,411 | . | . | (79) | (79) | 99 | 99 | - | - |
| 2013 | frcc | 1076 | Chattahoochee, City of | u.s. | 461 | 461 | - | - | 458 | 458 | - |  | (11) | (11) | 13 | 13 | - |  |
| 2013 | fric | 1077 | Florida Keys Electric Cooperative Assn | u.s. | 9,084 | 9,084 | - | - | 9,032 | 9,032 | - | - | (210) | (210) | 261 | 261 | - | - |
| 2013 | fric | 1078 | Florida Power \& Light co. | u.s. | 1,383,264 | 1,383,264 | - | - | 1,375,406 | 1,375,406 | - | - | (31,923) | (31,923) | 39,782 | 39,782 | - | - |
| 2013 | frcc | 1079 | Florida Public Utilities Company | u.s. | 4,463 | 4,463 | - | - | 4,438 | 4,438 | - | - | (103) | (103) | 128 | 128 | - | - |
| 2013 | FRCC | 1080 | Gainesville Regional Utilities | u.s. | 22,235 | 22,235 | - | - | 22,109 | 22,109 | - | - | ${ }^{(513)}$ | (513) | 639 | 639 | - | - |
| 2013 | fric | 1081 | Homestead, City of | u.s. | 6,443 | 6,443 | - | - | 6,406 | 6,406 | - | $\cdot$ | (149) | (149) | 185 | 185 | - |  |
| 2013 | FRCC | 1082 | JEA | u.s. | 151,122 | 151,122 | - | - | 150,264 | 150,264 | - | - | (3,488) | (3,488) | 4,346 | 4,346 | - | - |
| 2013 | FRCC FRCC | 1083 | Lakeland Electric | u.s. | 36,877 46,308 | 36,877 46,308 | $:$ | $:$ | 36,668 46,045 | 36,668 46,045 | $:$ | $:$ | ${ }^{(851)}$ | ${ }^{(851)}$ | 1,061 1,332 | 1,061 1,332 | $:$ | - |
| 2013 | frcc | 1626 | Lee County Electric Cooperative, Inc | u.s. | 46,308 | 46,308 | - | - | 46,045 | 46,045 | - | - | $(1,069)$ | $(1,069)$ | 1,332 | 1,332 | - | - |
| 2013 | FRCC | 1661 | city of Lake Worth | u.s. | 5,508 | 5,508 | - | - | 5,477 | 5,477 | - | - | ${ }^{(127)}$ | ${ }^{(127)}$ | ${ }^{158}$ | 158 | - | . |
| 2013 | FRCC | 1084 | Mount Dora, City of | u.s. | 1,123 | 1,123 | - | - | 1,117 | 1,117 | - | - | (26) | (26) | 32 | 32 | - | - |
| 2013 | FRCC | 1085 | New Smyrna Beach, Utilities Commission of | u.s. | 4,877 | 4,877 | - | - | 4,849 | 4,849 7159 | - | - | ${ }^{\text {(113) }}$ | ${ }^{(113)}$ | 140 | 140 |  | - |
| 2013 | FRCC | 1086 | Orlando Utilities Commission | u.s. | 71,929 | 71,929 | - | - | 71,520 | 71,520 | - | - | $(1,660)$ | $(1,660)$ | 2,069 | 2,069 | - | - |
| 2013 | FRCC | 1087 | Duke Energy Florida | u.s. | 495,431 | 495,431 | - | - | 492,617 | 492,617 | - | - | $(11,434)$ | $(11,434)$ | 14,248 | 14,248 | - | - |
| 2013 | FRCC FRCC | 1088 1089 | Quincy City of ${ }^{\text {Reedy Creek }}$ Imovement District | u.s. | 1,718 15,261 | $\begin{array}{r}1,718 \\ 15 \\ 15 \\ \hline\end{array}$ | $:$ | $:$ | 1,708 15175 | 1,708 15175 | $:$ | $:$ | ${ }^{(40)}$ | (40) (352) | 49 439 | 49 439 | $:$ | $:$ |
| 2013 | FRCC | 1089 | Reedy Creek Improvement District St Sloud City (Ouc) | u.s. | 15,261 7 | 15,261 | - | - | $\begin{array}{r}15,175 \\ 7,575 \\ \hline\end{array}$ | 15,175 | - | - | (352) (176) | (352) (176) | 439 | 439 | $:$ | - |
| 2013 | FRCC | 1090 | St. Cloud, City of (OUC) | u.s. | $\begin{array}{r}7,618 \\ 33,988 \\ \hline\end{array}$ | 7,618 33908 | - | - | 7,575 33,716 | 7,575 33716 | - | - | ${ }^{(178)}$ | ${ }_{\text {(1783) }}^{(176)}$ | 219 | 219 975 | - | - |
| 2013 | FRCC FRCC cher | 1091 | Tallahassee, City of | u.s. | 33,908 242273 | 33,908 242273 | - | : | 33,716 240897 | 33,716 240897 | - | : | (1783) | (1783) | 975 | 975 6.968 | $:$ | : |
| 2013 | FRCC | 1092 | Tampa Electric Company | u.s. | 242,273 | 242,273 | - | - | 240,897 | 240,897 | - | - | $(5,591)$ | $(5,591)$ | 6,968 | 6,968 | - |  |
| 2013 2013 | FRCC FRCC | 1603 1093 | City of Vero Beach Wauchla, City of | u.s.s. u.s. | 9,336 780 | 9,336 780 | $:$ | $:$ | $\begin{array}{r}9,283 \\ \hline 776\end{array}$ | $\begin{array}{r}9,283 \\ \hline 76\end{array}$ | $:$ | $:$ | $\underset{\substack{(215) \\(18)}}{ }$ | $\underset{\substack{(215) \\(18)}}{ }$ | 269 22 | 269 22 | $:$ | $:$ |
| 2013 | frcc | 1094 | Wilisison, City of | u.s. | 404 | 404 | . | . | 402 | 402 | . | . | (9) | (9) | 12 | 12 | . | - |
| 2013 | frcc | 1095 | Winter Park, City of | u.s. | 5,458 | 5,458 | - | - | 5,427 | 5,427 | - |  | (126) | (126) | 157 | 157 | - | - |
| 2013 | FRCC | 1072 | Florida Municipal Power Agency | u.s. | 69,788 | 69,788 | - | - | 69,391 | 69,391 | - | - | (1,611) | $(1,611)$ | 2,007 | 2,007 | - |  |
| 2013 | TOTAL FRCC |  |  | u.s. | 165,215 | 165,215 | . | - | 164,276 | 164,276 | - | . | $(3,813)$ | $(3,813)$ | 4,751 | 4,751 | - |  |
|  |  |  |  |  | 2,795,837 | 2,795,837 | . | - | 2,779,954 | 2,779,954 | - |  | $(64,523)$ | (64,523) | 80,406 | 80,406 | - | - |
| 2013 | mRo | 1199 | Basin Electric Power Cooperative | u.s. | 179,380 | 179,380 | - | - | 178,361 | 178,361 | - | - | $(4,140)$ | $(4,140)$ | 5,159 | 5,159 | - | - |
| 2013 | mRo | 1201 | Central lowa Power Cooperative (CIPCO) | u.s. | 35,951 | 35,951 | - | - | 35,74 | 35,746 | - | - | (830) | (830) | 1,034 | 1,034 | - | $\cdot$ |
| 2013 | MRO | 1204 | Corn Belt Power Cooperative | u.s. | 25,878 | 25,878 | - | - | 25,731 | 25,731 | - | - | (597) | (597) | 744 | 744 | - | - |
| 2013 | mro | 1207 | Dairyland Power Cooperative | u.s. | 69,568 | 69,568 | - | - | 69,173 | 69,173 | - | - | $(1,606)$ | $(1,606)$ | 2,001 | 2,001 |  | - |
| 2013 | mRO | 1210 | Great River Energy | u.s. | 175,912 | 175,912 | - | - | 174,912 | 174,912 | - | - | (4,060) | $(4,060)$ | 5,059 | 5,059 | . | - |
| 2013 | mRo | 1222 | Minnkota Power Cooperative, Inc. | u.s. | 55,033 | 55,033 | - | - | 54,720 | 54,720 | - | - | $(1,270)$ | $(1,270)$ | 1,583 | 1,583 | - | - |
| 2013 | mro | 1230 | Nebrask Public Power District | u.s. | 172,178 | 172,178 | - | - | 171,200 | 171,200 | - | - | $(3,974)$ | $(3,974)$ | 4,952 | 4,952 |  | - |
| 2013 | MRO | 1232 | Omaha Public Power District | u.s. | 144,702 | 144,702 | - | - | 143,880 | 143,880 | - | - | $(3,339)$ | $(3,339)$ | 4,162 | 4,162 | - | - |
| 2013 | mRO | 1237 | Southern Montana Generation and Transmission | u.s. | 88 | 88 | - | - | 87 | 87 | - | - | ${ }^{(2)}$ | (2) | 3 | 3 | - |  |
| 2013 | mRO | 1240 | Western Area Power Administration (UM) | u.s. | 114,216 | 114,216 | - | - | 113,567 | 113,567 | - | - | $(2,636)$ | $(2,636)$ | 3,285 | 3,285 | - |  |
| 2013 | mro | 1239 | Western Area Power Administration (LM) | u.s. | 1,603 | 1,603 |  | - | 1,594 | 1,594 | - | - | (37) | (37) | 46 | 46 | - |  |
| 2013 | mRo | 1217 | Manitoba Hydro | can | 308,347 | 1, | 308,347 | - | 299,680 | , | 299,680 | - | - | - | 8.668 | - | 8,668 |  |
| 2013 | Mro | 1235 | SaskPower | can us | 292,856 366547 | ${ }_{36,547}$ | 292,856 | : | 284,624 <br> 364,45 | 364,465 | 284,624 | - | (8,459) | (8,459) | 8,232 10,542 | 10,542 | 8,232 | $:$ |
| 2013 | mro | 1195 | Alliant Energy (Alliant East - WPL \& Alliant West IPL) Madison, Gas and Electric | u.s. | 366,547 | 366,547 43811 | - | $\cdot$ | 364,465 | 364,465 | - | $:$ | $(8,459)$ $(1,011)$ | ${ }^{(8,459)}$ | 10,542 1,260 | 10,542 | - | - |
| 2013 2013 | MRO MRO | 1216 1220 | Madison, Gas and Electric MidAmerican Energy Company | u.s. u.s. | 43,811 359,363 | 43,811 359,363 | : | $:$ | 43,562 357,321 | 43,562 357,321 | - | $:$ | ${ }_{(8,294)}^{(1,011)}$ | $(1,011)$ $(8,294)$ | 1,260 10,335 | 1,260 10,335 | $:$ | $:$ |
| 2013 | mRO | 1221 | Minnesota Power | u.s. | 164,881 | 164,881 | - | - | 163,944 | 163,944 | - | - | $(3,805)$ | $(3,805)$ | 4,742 | 4,742 | - | - |
| 2013 | mRo | 1226 | Montana-Dakota Utilities Co. | u.s. | 39,354 | 39,354 | - | - | 39,131 | 39,131 | - |  | (908) | (908) | 1,132 | 1,132 | - |  |
| 2013 | mRO | 1231 | NorthWestern Energy | u.s. | 19,760 | 19,760 | - | - | 19,648 | 19,648 | - | - | (456) | (456) | 568 | 568 | - | - |
| 2013 | mRo | 1233 | Otter Tail Power Company | u.s. | 57,974 | 57,974 | - | - | 57,645 | 57,645 | - | - | $(1,388)$ | $(1,338)$ | 1,667 | 1,667 | - | - |
| 2013 | mro |  | Wisconsin Public Service (WPS) | u.s. | 155,651 | 155,651 | - | - | 154,767 | 154,767 | - | - | (3,592) | (3,592) | 4,476 | 4,476 | - | - |
| 2013 | mRo |  | Upper Peninsula Power Company (UPPCO) | u.s. | 10,397 | 10,397 | - | - | 10,338 | 10,338 | - | - | (240) | (240) | 299 | 299 | - | - |
| 2013 | mro | 1244 | Xcel Energy Company (NSP) | u.s. | 570,467 | 570,467 | - | - | 567,227 | 567,227 | - | - | (13,165) | (13,165) | 16,406 | 16,406 | - | - |
| 2013 | MRO | 1196 | Ames Municical Electric System | u.s. | 9,758 | 9,758 | - | - | 9,703 | 9,703 | - | - | (225) | ${ }^{(225)}$ | 281 30 | 281 30 | - | - |
| 2013 | mRO | 1604 | Atlantic Municipal Utilities | u.s. | 1,050 | 1,050 | - | - | 1,045 | 1,045 | - | - | (24) | (24) | 30 | 30 | - | . |
| 2013 | mRo | 1476 | Badger Power Marketing Authority of Wisconsin, Inc. | u.s. | 5,102 | 5,102 | - | - | 5,073 | 5,073 6711 | - | - | (118) | (118) | 147 194 | 147 | - | - |
| 2013 2013 | Mro MRO | 1200 1477 | Cedar Falls Municipal Utilities Central Minnesota Municipal Power Agency (CMMPA) | u.s. u.s. | 6,749 5,900 | 6,749 5,900 | : | : | 6,711 5,867 | 6,711 5,867 | : | : | ${ }_{\text {(136) }}^{(156)}$ | (156) $(136)$ | 194 170 | 194 170 | : | : |
| 2013 | mRo | 1203 | City of Escanaba | u.s. | 1,764 | 1,764 | - | - | 1,754 | 1,754 | - | - | (41) | (41) | 51 | 51 | - | $\cdot$ |
| 2013 | mRO | 1205 | Falls City Water \& Light Department | u.s. | 720 | 720 | - | - | 716 | 716 | - | - | (17) | (17) | 21 | 21 | - | - |
| 2013 | mRo | 1206 | Fremont Department of Utilities | u.s. | 5,532 | 5,532 | - | - | 5,501 | 5,501 | - | - | (128) | (128) | 159 | 159 | - | - |
| 2013 | MRO | 1208 | Geneseo Municipal Utilities | u.s. | 840 | 840 | - | - | 836 | 836 | - | - | (19) | (19) | 24 | 24 | - | - |


|  |  |  |  |  | Total NERC Assessments |  |  |  | Nerc neL Assessments |  |  |  | Penalty Sanctions |  | NERC Compliance Credits |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Data } \\ & \text { year } \end{aligned}$ | $\begin{gathered} \text { Regional } \\ \text { Entity } \end{gathered}$ | 10 | Entity $\quad$ Country |  | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Total | US Total | Canada Total | $\begin{gathered} \text { Mexico } \\ \text { Total } \end{gathered}$ |
| 2013 | mro | 1209 | Grand Island Utilities Department | u.s. | 9,605 | 9,605 | - | - | 9,551 | 9,551 | - | - | (222) | (222) | 276 | 276 | $\cdot$ | - |
| 2013 | mro | 1606 | Harlan Municipal Utilities | u.s. | 304 | 304 | - | - | 302 | 302 | - | - | (7) | (7) | 9 | 9 | - | $\cdot$ |
| 2013 | mro | 1211 | Hastings Utilities | u.s. | 5,530 | 5,530 | . | - | 5,498 | 5,498 | . | . | (128) | (128) | 159 | 159 | . | - |
| 2013 | mro | 1212 | Heartland Consumers Power District | u.s. | 10,755 | 10,755 | - | - | 10,693 | 10,693 | - | - | (248) | (248) | 309 | 309 | - | - |
| 2013 | mro | 1213 | Huthhison Utillites Commission | u.s. | 3,663 | 3,663 | - |  | 3,642 | 3,642 | - | - | (85) | (85) | 105 | 105 | - |  |
| 2013 | mro | 1215 | Lincoln Electric System | u.s. | 41,401 | 41,401 | - | - | 41,165 | 41,165 | - | - | (995) | (995) | 1,191 | 1,191 | - | - |
| 2013 | mRO | 1218 | Manitowoc Public Utilities | u.s. | 6,842 | 6,842 | - | - | 6,804 | 6,804 | - | - | (158) | (158) | 197 | 197 | - | - |
| 2013 | MRO | 1223 | Missouri River Energy Services | u.s. | 31,065 | 31,065 | - | - | 30,889 | 30,889 | - | - | (717) | (717) | 893 | 893 | - | - |
| 2013 | MRO | 1224 | MN Municipal Power Agencr (MMPA) | u.s. | 19,250 | 19,250 | - | - | 19,141 | 19,141 | - | - | (444) | (444) | 554 | 554 | - | - |
| 2013 | mRo | 1607 | Monteruma Municipal Light \& Power | u.s. | 406 | 406 | - | - | 404 | 404 | - | - | (9) | (9) | 12 | 12 | - | - |
| 2013 | MRO | 1227 | Municipal Energy Agency of Nebraska | u.s. | 14,876 | 14,876 | - | - | 14,792 | 14,792 | - | . | ${ }^{(343)}$ | ${ }^{(343)}$ | 428 | 428 | $\cdot$ | - |
| 2013 | mRo | 1228 | Muscatine Power and Water | u.s. | 11,044 | 11,044 | - | - | 10,981 | 10,981 | - | - | (255) | (255) | 318 | 318 | - | - |
| 2013 | MRO | 1229 | Nebraska City Utilities | u.s. | 2,169 | 2,169 | - | - | 2,157 | 2,157 | - | - | (50) | (50) | 62 | 62 | $\cdot$ | - |
| 2013 | mRo | 1234 | Rochester Public Utilities | u.s. | 68 | 68 | - | - | 68 | 68 | - | - | (2) | (2) | 2 | 2 | . | - |
| 2013 | mRo | 1236 | Southern Minnesota Municipal Power Agency | u.s. | 37,352 | 37,352 | - | - | 37,140 | 37,140 | - | - | (862) | ${ }^{(862)}$ | 1,074 | 1,074 | - | - |
| 2013 | MRO | 1241 | Willmar Municipal Utilities | u.s. | 3,324 | 3,324 | - | - | 3,305 | 3,305 | - | - | (77) | (77) | 96 | 96 | - | - |
| 2013 | MRO | 1242 | Wisconsin Public Power, Inc. (East and West regions) | u.s. | 68,995 | 68,995 | . | . | 68,603 | 68,603 | . | . | $(1,592)$ | $(1,592)$ | 1,984 | 1,984 | . | . |
|  |  |  | Total MRO |  | 3,667,984 | 3,066,780 | 601,204 | - | 3,633,662 | 3,049,358 | 584,304 | . | $(70,76)$ | (70,776) | 105,098 | 88,198 | 16,900 | . |
| 2013 | NPCC | 1336 | New England | u.s. | 1,634,487 | 1,633,487 | - | - | 1,625,202 | 1,625,202 | - | - | (37,721) | (37,721) | 47,007 | 47,007 | . |  |
| 2013 | npCC | 1339 | New York | u.s. | 2,065,757 | 2,065,757 | - | - | 2,054,022 | 2,054,022 | - | . | $(47,674)$ | $(47,674)$ | 59,410 | 59,410 | - | - |
| 2013 | necc | 1337 | Ontario | Canada | 1,215,106 | , | 1,215,106 | . | 1,767,903 | , | 1,767,903 | - | - | - | ${ }^{(552,797)}$ | - | $(552,797)$ |  |
| 2013 | NPCC | 1341 | Quebec | Canada | 1,757,802 | - | 1,757,802 | - | 2,383,240 | - | 2,383,240 | - | - | - | $(625,439)$ | - | $(625,439)$ | - |
| 2013 | NPCC | 1338 | New Brunswick | ${ }^{\text {Canada }}$ | ${ }_{1}^{118,912}$ | - | ${ }_{1}^{118,912}$ | - | 176,920 | - | 176,920 | - | $\checkmark$ | - | $(58,008)$ | - | $(58,008)$ | - |
|  | nPCC | 1340 | TOTAL NPCC |  | 144,412 $6.936,475$ | 3,700,244 | 1444,412 $3,236,231$ | - | 140,352 $8,147,639$ | 3,679,224 | 140,352 $4.468,415$ | - | (85,396) | (85,396) | 4,059 $(1,125,788)$ | 106,416 | 4,059 $(1,232,184)$ | $\cdots$ |
|  |  |  |  |  | 6,936,475 | 3,700,244 | 3,236,231 |  | 8,147,639 | 3,679,224 | 4,468,415 |  | $(85,396)$ | (85,396) | $(1,125,768)$ | 106,416 | (1,232,184) |  |
| 2013 | RF | 1104 | Bay City | u.s. | 4,167 | 4,167 | $\cdot$ | $\cdot$ | 4,144 | 4,144 | - | - | (96) | (96) | 120 | 120 | $\cdot$ | - |
| 2013 | ${ }^{\text {RF }}$ | 1102 | Cannelton Utilities | u.s. | 205 | 205 | - | - | 204 | 204 | - | - | (5) | (5) | 6 | 6 | - | - |
| 2013 | RF | 1105 | City of Chelsea | u.s. | 1,229 | 1,229 | - | - | 1,222 | 1,222 | - | - | (28) | (28) | 35 | 35 | - | - |
| 2013 | ${ }^{\text {RF }}$ | 1106 | City of Croswell | u.s. | 536 | 536 | - | - | 532 | 532 | - | - | ${ }_{(12)}^{(12)}$ | ${ }_{(12)}^{(12)}$ | 15 | 15 | - |  |
| 2013 | ${ }^{\text {RF }}$ | 1108 | City of Eaton Rapids | u.s. | 1,208 | 1,208 | - | - | 1,201 | 1,201 | - | - | ${ }^{(28)}$ | ${ }^{(28)}$ | 35 | 35 | - |  |
| 2013 | ${ }^{\text {RF }}$ | 1111 | City of Hart | u.s. | 617 | 617 | - | - | 614 | 614 | - | - | (14) | (14) | 18 | 18 | - |  |
| 2013 2013 | ${ }_{\text {RF }}^{\text {RF }}$ | 1490 1112 | City of Lansing city of Marcuette Board of Ligh \& Power | u.s. u.s. | 28,109 4,206 | 28,109 4,206 | : | : | 27,949 4,182 | 27,949 4,182 | : | : | ${ }^{(649)}$ | (649) | 808 121 | 808 121 | $:$ | : |
| 2013 2013 | ${ }_{\text {RF }}^{\text {RF }}$ | 1112 1114 | City of Marcuette Board of Ligh \& Power city of Portland | u.s. u.s. | 4,206 466 | 4,206 466 | $:$ | $:$ | 4,182 464 | 4,182 464 | $:$ | $:$ | ${ }_{(11)}^{(97)}$ | (11) | 121 13 | 121 13 | $:$ | $:$ |
| 2013 | ${ }_{\text {RF }}$ | 1116 | city of St. Louis | u.s. | 510 | 510 | - | - | 507 | 507 | - | . | (12) | (12) | 15 | 15 | - | - |
| 2013 | ${ }^{\text {RF }}$ | 1118 | City of Wyandotte | u.s. | 2,776 | 2,776 | - | - | 2,760 | 2,760 | - | - | (64) | (64) | 80 | 80 | - | - |
| 2013 | RF | 1120 | Cloverland Electric Cooperative | u.s. | 11,401 | 11,401 | - | - | 11,336 | 11,336 | - | - | (263) | (263) | 328 | 328 | - |  |
| 2013 | ${ }^{\text {RF }}$ | 1122 | CMS ERM Michigan uc | u.s. | 2,002 | 2,002 | - | - | 1,991 | 1,991 11367 | - | - | (46) | (46) | 58 | 58 | - | - |
| 2013 | RF | 1124 | Constellation New Energy (MECS-Cons) | u.s. | 11,432 | 11,432 | - | - | 11,367 | 11,367 | - | - | (264) | (264) | 329 | 329 | - | - |
| 2013 | ${ }^{\text {RF }}$ | 1123 | Constellation New Energy (MECS-DET) | u.s. | 13,810 | 13,810 | - | - | 13,731 | 13,731 | - | - | (319) | (319) | 397 | 397 | - |  |
| 2013 | ${ }^{\text {RF }}$ | 1126 | Consumers Energy Company | u.s. | 411,297 | 411,297 | - | - | 408,961 | 408,961 | - | - | (9,492) | (9,492) | 11,829 | 11,829 | - |  |
| 2013 | ${ }^{\text {RF }}$ | 1128 | Detroit Edison Company | u.s. | 585,989 | 585,989 | - | - | 582,660 | 582,660 | - | - | $(13,524)$ | $(13,524)$ | 16,853 | 116853 | - |  |
| 2013 2013 | ${ }_{\text {RF }}^{\text {RF }}$ | 1166 1135 | Duke Energy Indiana | u.s. | 383,917 | 383,917 | $:$ | $:$ | 381,737 597 | 381,737 597 | : | $:$ | (8,860) | $(8,860)$ (14) | 11,041 17 | 11,041 | $:$ | $:$ |
| 2013 2013 | ${ }_{\text {RF }}^{\text {RF }}$ | 1135 1646 | Ferdinand Municipal Light \& Water FirstEnergy Solutions (MECS-CONS) | $\begin{aligned} & \text { u.s.s. } \\ & \text { u.s. } \end{aligned}$ | $\begin{gathered} 600 \\ 8,689 \end{gathered}$ | $\begin{array}{r} 600 \\ 8,689 \end{array}$ | $:$ | $:$ | 597 8,640 | 597 8,640 | $:$ | $:$ | ${ }_{\text {(120) }}^{(120)}$ | ${ }_{(14)}^{(201)}$ | 17 250 | 17 250 | $:$ | $:$ |
| 2013 | RF | 1549 | Firstenergy Solutions (MECS-DET) | u.s. | 30,095 | 30,095 | - | . | 29,924 | 29,924 | . |  | (695) | (695) | 866 | 866 | - | - |
| 2013 | ${ }^{\text {RF }}$ | 1612 | Glacial Energy (MECS-DET) | u.s. | 1,828 | 1,828 | . | - | 1,817 | 1,817 | - | - | (42) | (42) | 53 | 53 | - | - |
| 2013 | RF | 1144 | Holland Board of Public Works | u.s. | 12,440 | 12,440 | - | - | 12,369 | 12,369 | - | - | (287) | (287) | 358 | 358 | - |  |
| 2013 | RF | 1145 | Hoosier Energy | u.s. | 92,475 | 92,475 | - | - | 91,950 | 91,950 | - | - | $(2,134)$ | $(2,134)$ | 2,660 | 2,660 | - | - |
| 2013 | RF | 1148 | Indiana Municipal Power Agency (DUKE CIIN) | u.s. | 39,028 | 39,028 | - | - | 38,807 | 38,807 | - | - | (901) | (901) | 1,122 | 1,122 | - | - |
| 2013 | ${ }_{\text {RF }}^{\text {RF }}$ | 1485 | Indiana Municipal Power Agency (NPPSCO) | u.s. | 5,421 | 5,421 | - | - | 5,390 | 5,390 | - | - | ${ }^{(125)}$ | ${ }^{(125)}$ | 156 | ${ }_{2} 156$ | - |  |
| 2013 | RF | 1486 | Indiana Municipal Power Agency (SIGE) | u.s. | 7,475 | 7,475 | - | - | 7,433 | 7,433 | - | - | (173) | (173) | 215 | 215 | - |  |
| 2013 | RF | 1149 | Indianapolis Power \& Light Co. | u.s. | 186,795 | 186,795 | - | - | 185,734 | 185,734 | - | - | $(4,311)$ | $(4,311)$ | 5,372 | 5,372 | - |  |
| 2013 2013 | ${ }_{\text {RF }}^{\text {RF }}$ | 1553 1554 | Integry Energy Services (MECS-CONS) Integry Energ Services (MECS-DET) |  | 12,952 7,326 | 12,952 7326 | $:$ | $:$ | 12,879 7,285 | 12,879 7285 | : | $:$ | ${ }^{(299)}$ | ${ }_{\text {(129) }}^{(1299)}$ | 372 211 | 372 211 | $:$ | $:$ |
| 2013 2013 | ${ }_{\text {RF }}^{\text {RF }}$ | 1554 | Integrys Energy Services (MECS-DET) Integrys Energy Services (WEPC) | u.s. | 7,326 10,890 | 7,326 10,890 | - | $:$ | 7,285 10,828 | 7,285 10,828 | $:$ | $:$ | ${ }_{\substack{\text { (169) } \\ \text { (251) }}}^{(1)}$ | ${ }^{(169)}$ | 211 313 | ${ }_{313}^{211}$ | $:$ | $:$ |
| 2013 | RF | 1614 | Just nergy (MECS-DET) | U.s. | 183 | 183 | : | : | 10,882 | $\begin{array}{r}182 \\ 10828 \\ \hline\end{array}$ | : | : | ${ }_{(4)}^{(251)}$ | ${ }_{(4)}^{(251)}$ | 313 5 | 313 5 | $:$ | $:$ |
| 2013 | RF | 1154 | Michigan Public Power Agency | u.s. | 16,142 | 16,142 |  | . | 16,051 | 16,051 | - | - | (373) | (373) | 464 | 464 | . | . |
| 2013 | ${ }^{\text {RF }}$ | 1155 | Michigan South Central Power Agency | u.s. | 8,095 | 8,095 | - | - | 8,049 | 8,049 | - | - | (187) | (187) | 233 | 233 | - | - |


| $\begin{aligned} & \text { Data } \\ & \text { Year } \end{aligned}$ | $\begin{aligned} & \text { Regional } \\ & \text { Entity } \end{aligned}$ | 10 | Entity | Country | Total NERC Assessments |  |  |  | Nerc nel assessments |  |  |  | Penalty Sanctions |  | NERC Compliance Credits |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Total | US Total | Canada Total | $\begin{gathered} \text { Mexico } \\ \text { Total } \end{gathered}$ |
| 2013 | RF | 1158 | MidAmerican Energy Company Retail | u.s. | 1,257 | 1,257 | - | - | 1,250 | 1,250 | - | - | (29) | (29) | 36 | 36 | - | - |
| 2013 | ${ }^{\text {RF }}$ | 1163 | Northern Indiana Public Service Co. | u.s. | 222,307 | 222,307 | . | - | 221,044 | 221,044 | - | - | $(5,130)$ | $(5,130)$ | 6,393 | 6,393 | - |  |
| 2013 | RF | 1164 | Ontonagon County Rural Electrification Assoc. | u.s. | 372 | 372 | . | - | 370 | 370 | - | - | (9) | (9) | 11 | 11 | . |  |
| 2013 | RF | 1265 | PJM Interconnnection, LLC | u.s. | 8,788,247 | 8,788,247 | - | - | 8,738,322 | 8,738,322 | - | - | (202,819) | (202,819) | 252,743 | 252,743 | - | - |
| 2013 | RF | 1172 | Sempra Energy Solutions (MECS-CONS) | u.s. | 8,557 | 8,557 | . | - | 8,509 | 8,509 | - | - | (197) | (197) | 246 | 246 | . |  |
| 2013 | RF | 1171 | Sempra Energ Solutions (MECS-DET) | u.s. | 8,991 | 8,991 | - | - | 8,940 | 8,940 | - | - | (208) | (208) | 259 | 259 | - | - |
| 2013 | ${ }^{\text {RF }}$ | 1176 | Direct Energy (fka:Strategic Energy, LCC) (MECS-CONS) | u.s. | 163 | 163 | - | - | 162 | 162 | - | - | (4) | (4) | 5 | 5 | - | - |
| 2013 | RF | 1174 | Direct Energy (fa: Strategic Energy,LCC) (MECS-DET) | u.s. | 4,701 | 4,701 | - | - | 4,675 | 4,675 | - | - | (108) | (108) | 135 | 135 | - | $\cdot$ |
| 2013 | ${ }_{\text {RF }}^{\text {RF }}$ | 1581 | Spartan Renewable Energy | u.s. | ${ }^{856}$ | ${ }^{856}$ | - | - | 851 2870 | 851 8 8 | - | - | ${ }_{(20)}^{(23)}$ | ${ }_{(20)}$ | ${ }^{25}$ | 25 | $\cdot$ | - |
| 2013 | RF | 1180 | Thumb Electric Cooperative | u.s. | 2,283 | 2,283 | - | - | 2,270 | 2,270 | - | - | (53) | (53) | 66 | 66 | - | - |
| 2013 | ${ }^{\text {RF }}$ | 1662 | Ohio Valley Electric Corporation | u.s. | 8,144 | 8,144 | - | - | 8,097 | 8,097 | - | - | ${ }^{(188)}$ | ${ }^{(188)}$ | 234 | 234 | - | - |
| 2013 | ${ }^{\text {RF }}$ | 1181 | Vectren Energy Delivery of $\mathbb{N}$ | u.s. | 72,763 | 72,763 | - | - | 72,349 | 72,349 | - | - | (1,679) | ${ }^{(1,679)}$ | 2,093 | 2,093 | - | - |
| 2013 | ${ }^{\text {RF }}$ | 1183 | Village of Sebewaing | u.s. | 558 | 558 | - | - | 555 | 555 | - | - | (13) | (13) | 16 | 16 | , | - |
| 2013 | ${ }_{\text {RF }}^{\text {RF }}$ | 1184 1488 | Wabash Valley Power Association Inc. (DUKE CIIN) | u.s. | $\begin{array}{r}35,395 \\ \hline 2326\end{array}$ | 35,395 | - | - | 35,194 | 35,194 $\mathbf{2 1 , 2 0 4}$ | - | - | ${ }^{(817)}$ | ${ }^{(817)}$ | 1,018 | 1,018 |  | : |
| 2013 2013 | ${ }_{\text {RF }}^{\text {RF }}$ | 1488 1185 | Wabash Valley Power Association Inc.(NPSCO) Wisconsin Electric Power Co. | u.s. u.s. | 21,326 355,279 | 21,326 355,279 | . | $:$ | 21,204 353,261 | 21,204 353,261 | $:$ | $:$ | $(8929)$ $(8,199)$ | ${ }_{(8,199)}$ | 613 10,218 | 613 10,218 | - | $:$ |
| 2013 | RF | 1189 | Wolverine Power Marketing Cooperative | u.s. | 9,577 | 9,577 | . | . | 9,523 | 9,523 | . | . | (221) | (221) | 275 | 275 | . |  |
| 2013 | RF | 1191 | Wolverine Power Supply Cooperative | u.s. | 33,584 | 33,584 | - | - | 33,394 | 33,394 | - | . | (775) | (775) | 966 | 966 | . | - |
| 2013 | RF | 1190 | Wolverine Power Marketing Cooperative | u.s. | 1,739 | 1,739 | . | . | 1,730 | 1,730 | - | . | (40) | (40) | 50 | 50 | . | . |
|  |  |  | Total relablity fist |  | 11,480,414 | 11,480,414 | . | . | 11,415,196 | 11,415,196 | - | . | $(264,949)$ | (264,949) | 330,168 | 330,168 | . | . |
| 2013 | serc | 1267 | Alabama Municipal Electric Authority | u.s. | 43,076 | 43,076 | - | - | 42,832 | 42,832 | - | - | (994) | (994) | 1,239 | 1,239 | - | - |
| 2013 | serc | 1268 | Alabama Power Company | u.s. | 747,948 | 747,948 | - | - | 743,699 | 743,699 | - | - | $(17,261)$ | $(17,261)$ | 21,510 | 21,510 | - |  |
| 2013 | serc | 1269 | Ameren - Illinois | u.s. | 542,976 | 542,976 | - | - | 539,891 | 539,891 | - | - | $(12,531)$ | $(12,531)$ | 15,616 | 15,616 |  |  |
| 2013 | serc | 1271 | Amere - Missouri | u.s. | 529,799 | 529,799 | - | - | 526,790 | 526,790 | - | - | $(12,227)$ | $(12,227)$ | 15,237 | 15,237 |  |  |
| 2013 | serc | 1272 | APGI-Yadkin Division | u.s. | 348 | 348 | - | - | 346 | 346 | - | - | (8) | (8) | 10 | 10 |  |  |
| 2013 | serc | 1660 | APGI - Tapoco Division (ALCOA) | u.s. | 3,994 | 3,994 | - | - | 3,971 | 3,971 | - | - | (92) | (92) | 115 | 115 | - |  |
| 2013 | serc | 1273 | Associated Electric Cooperative Inc. | u.s. | 244,644 | 244,644 | - | - | 243,255 | 243,255 |  | - | $(5,646)$ | $(5,646)$ | 7,036 | 7,036 |  |  |
| 2013 | SERC | 1582 | Beauregard Electric Cooperative, Inc. | u.s. | 14,122 | 14,122 | - | - | 14,042 | 14,042 | - | - | ${ }^{(326)}$ | ${ }^{(326)}$ | 406 | 406 |  |  |
| 2013 | serc | 1462 | Benton Utility District | u.s. | 3,440 | 3,440 | - | - | 3,420 | 3,420 | - | - | (79) | (79) | 99 | 99 |  |  |
| 2013 | SERC | 1274 | Biig Rivers Electric Corporation | u.s. | 48,316 | 48,316 | - | - | 48,041 | 48,041 | - | - | (1,115) | $(1,115)$ | 1,390 | 1,390 |  |  |
| 2013 | SERC SERC | 1275 1276 | Black Warrior EMC Bue Ridge EMC | u.s. | 5,544 17733 | 5,544 17733 | $:$ | $:$ | 5,513 17,633 | 5,513 17.633 | $:$ | $:$ | ${ }^{(128)}$ | ${ }^{(128)}$ | 159 | $159$ |  |  |
| 2013 2013 | SERC <br> SERC | 1276 1628 | Blue Ridge EMC Brazs Electric Power Cooperative, Inc. | u.s. u.s. | 17,733 5,439 | 17,733 5,439 | : | $:$ | 17,633 5,408 | 17,633 5,408 | $:$ | $:$ | $(409)$ $(126)$ | $(409)$ $(126)$ | $\begin{aligned} & 510 \\ & 156 \end{aligned}$ | $\begin{aligned} & 510 \\ & 156 \end{aligned}$ |  |  |
| 2013 | SERC | 1463 | Brazo Letrric Powercooperative, inc. Canton, Ms | U.s. | - | 1,532 | - | $\div$ | 5,408 | 5,408 1,523 | - | : | ${ }_{(135)}^{(126)}$ | ${ }_{(126)}^{(35)}$ | 156 44 | 156 44 |  |  |
| 2013 | serc | 1277 | Central Electric Power Cooperative Inc. | u.s. | 193,380 | 193,380 | - | - | 192,281 | 192,281 | . | - | $(4,463)$ | (4,463) | 5,561 | 5,561 |  |  |
| 2013 | serc |  | Century Aluminum - Hawesille | u.s. | 53,967 | 53,967 | - | - | 53,660 | 53,660 | - | - | (1,245) | (1,245) | 1,552 | 1,552 |  |  |
| 2013 | serc |  | Century Aluminum - Sebree | u.s. | 41,087 | 41,087 | - | - | 40,853 | 40,853 | - | - | (948) | (948) | 1,182 | 1,182 |  |  |
| 2013 | serc | 1278 | City of Blountstown FL | u.s. | 481 | 481 | - | - | 479 | 479 | - | - | (11) | (11) | 14 | 14 |  |  |
| 2013 | SERC | 1279 | city of Camden SC | u.s. | 2,386 | 2,386 | - | - | 2,373 | 2,373 | - | - | (55) | (55) | ${ }^{69}$ | ${ }^{69}$ |  |  |
| 2013 | serc | 1280 | City of Collins MS | u.s. | 629 | 629 | - | - | 625 | 625 | - | - | (15) | (15) | 18 | 18 |  |  |
| 2013 | serc | 1281 | City of Columbia MO | u.s. | 15,015 | 15,015 | - | - | 14,929 | 14,929 | - | - | (347) | (347) | 432 | 432 |  |  |
| 2013 | SERC SERC | 1282 1284 | City of Conway AR (Conway Corporation) | u.s. | 13,076 | 13,076 | - | - | 13,002 | 13,002 | - | - | (302) | (302) | 376 | 376 |  |  |
| 2013 | SERC | 1284 1285 | City of fvergreen AL city f cramplon | u.s. | 742 298 | 742 298 | - | : | 738 | 738 <br> 296 | : | $:$ | ${ }^{(17)}$ | ${ }_{(17)}^{(17)}$ | 21 | ${ }^{21}$ |  |  |
| 2013 2013 | SERC SERC | 1285 1286 | City of Hampton GA City of Harfford AL | u.s. | 298 423 | 298 423 | $:$ | $:$ | 296 420 | 296 420 | $:$ | $:$ | ${ }^{(7)}$ | (7) | $\stackrel{9}{12}$ | 12 |  |  |
| 2013 | SERC | 1287 | city of Henderson (KY) Municipal Power \& Light | U.s. | 7,797 | 7,797 | . | . | 7,752 | 7,752 | : | . | (180) | (180) | 224 | 224 |  |  |
| 2013 | strc | 1288 | City of North Little Rock AR (DENL) | u.s. | 12,112 | 12,112 | - | . | 12,044 | 12,044 | . | . | (280) | (280) | 348 | 348 |  |  |
| 2013 | serc | 1289 | City of Orangeburg SC Department of Public Utilities | u.s. | 10,565 | 10,565 | - | . | 10,505 | 10,505 | - | - | (244) | (244) | 304 | 304 |  |  |
| 2013 | strc | 1290 | City of Robertsdale AL | u.s. | 1,062 | 1,062 | - | - | 1,056 | 1,056 | - | - | (25) | (25) | 31 | 31 |  |  |
| 2013 | serc | 1291 | City of Ruston LA (DERS) | u.s. | 3,752 | 3,752 | - | - | 3,731 | 3,731 | - | - | (87) | (87) | 108 | 108 |  |  |
| 2013 | SERC | 1292 | City of Seneca SC | u.s. | 2,020 22849 | 2,020 22089 | - | - | 2,009 22719 | 2,009 22719 | - | : | (477) | ${ }_{(527)}^{(47)}$ | 58 657 | 58 657 |  |  |
| 2013 | SERC SERC | 1115 | City of Springfied (CWLP) | u.s. | 22,849 | 22,849 | - | : | 22,719 | 22,719 | : | $:$ | ${ }_{(527)}^{(7)}$ | (527) | 657 | 657 |  |  |
| 2013 | SERC | 1465 | City of Thayer, Mo | u.s. | 293 5900 | 293 5090 | - | - | 291 5 5 | ${ }_{5}^{291}$ | - | - | (17) | (17) | 8 | 15 |  |  |
| 2013 | serc | 1293 | city of Troy AL | u.s. | 5,400 | 5,400 | - | - | 5,369 | 5,369 | - | - | ${ }^{(125)}$ | (125) | 155 | 155 |  |  |
| 2013 | SERC | 1294 | City of West Memphis AR (West Memphis Utilities) | u.s. | 5,060 | 5,060 | - | - | 5,032 | 5,032 | - |  | (117) | ${ }_{(117)}^{(117)}$ | 146 | 146 |  |  |
| 2013 | serc | 1583 | Claiborne Electric Cooperative, Inc. | u.s. | 8,481 | 8,481 | - | - | 8,433 | 8,433 | - | - | (196) | (196) | 244 | 244 |  |  |
| 2013 | serc | 1584 | Concordia Electric Cooperative, Inc. | u.s. | 3,339 | 3,339 | - | - | 3,320 | 3,320 | - | - | (77) | (77) | 96 | 96 |  |  |
| 2013 2013 | SERC serc | 1283 1585 | Dalton Utilities Dixie Electric Membership Corporation | u.s. u.s. | 20,030 28,992 | 20,030 28,992 | : | $:$ | 19,917 28,529 | 19,917 28,529 | $:$ | - | ${ }_{\text {(462) }}^{(662)}$ | ${ }_{\text {(462) }}^{(662)}$ | 576 825 | 576 825 |  |  |
| 2013 | serc | 1295 | Dominion Virginia Power | u.s. | 1,084,434 | 1,084,434 | . | . | 1,078,273 | 1,078,273 | . | . | (25,027) | (25,027) | 31,187 | 31,187 |  |  |
| 2013 | SERC | 1296 | Duke Energy Carolinas, uc | u.s. | 980,528 | 980,528 | - | . | 974,957 | 974,957 | - | - | $(22,629)$ | $(22,629)$ | 28,199 | 28,199 |  |  |
| 2013 | SERC | 1466 | Durant, Ms | u.s. | 329 | 329 | - | - | 327 | 327 | - | - | (8) | (8) | 9 | 9 |  |  |
| 2013 | serc | 1478 | LGEE and KU Services Company as agent for LG\&E Company and KUCompany | u.s. | 442,698 | 442,698 | - | - | 440,183 | 440,183 | - | - | $(10,217)$ | $(10,217)$ | 12,732 | 12,732 |  |  |
| 2013 | serc | 1297 | East Kentucky Power Cooperative | u.s. | 168,568 | 168,568 | - | - | 167,611 | 167,611 | - | - | $(3,890)$ | $(3,890)$ | 4,848 | 4,848 |  |  |
| 2013 | SERC | 1298 | East Missisisippi Electric Power Association | u.s. | 5,892 | 5,892 | - | - | 5,858 | 5,858 | - | - | (136) | (136) | 169 | 169 |  |  |
| 2013 | SERC |  | Electricities of North Carolina Inc | u.s. | 144,720 | 144,720 | - | - | 143,898 | 143,998 | - | - | $(3,340)$ | (3,340) | 4,162 | 4,162 |  |  |
| 2013 | SERC | 1300 | Energy United EMC | u.s. | 32,361 | 32,361 | - | - | 32,177 | 32,177 | - | - | (747) | (747) | 931 | 931 |  |  |
| 2013 | SERC | 1301 | Entergy | u.s. | 1,396,015 | 1,396,015 | - | - | 1,388,085 | 1,388,085 | - | - | $(32,218)$ | $(32,218)$ | 40,148 | 40,148 |  |  |


| $\begin{aligned} & \text { Data } \\ & \text { year } \end{aligned}$ | $\begin{gathered} \text { Regional } \\ \text { Entity } \\ \hline \end{gathered}$ | 10 | Entity | Country | Total Nerc Assessments |  |  |  | Nerc neL Assessments |  |  |  | Penalty Sanctions |  | NERC Compliance Credits |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Total | US Total | Canada Total | $\begin{gathered} \text { Mexico } \\ \text { Total } \end{gathered}$ |
| 2013 | serc | 1302 | Fayetteville (NC) Public Works Commission | u.s. | 27,138 | 27,138 | - | - | 26,984 | 26,984 | - | - | (626) | (626) | 780 | 780 |  |  |
| 2013 | serc | 1303 | Florida Public Utilities (FLPanhande Load) | u.s. | 4,017 | 4,017 | - | - | 3,994 | 3,994 | - | - | (93) | (93) | 116 | 116 |  |  |
| 2013 | serc | 1304 | French Broad EMC | u.s. | 6,723 | 6,723 | . | . | 6,685 | 6,685 | - | . | (155) | (155) | 193 | 193 |  |  |
| 2013 | serc | 1305 | Georgia Power Company | u.s. | 1,088,722 | 1,088,722 | - | - | 1,082,537 | 1,082,537 | - | - | (25,126) | $(25,126)$ | ${ }^{31,311}$ | 31,311 |  |  |
| 2013 | SERC | 1306 | Georgia System Optns Corporation | u.s. | 472,864 | 472,864 | - | - | 470,178 | 470,178 | - | - | (10,913) | (10,913) | 13,599 | 13,599 |  |  |
| 2013 | serc | 1479 | Greenwood (MS) Utilities Commission | u.s. | 3,684 | 3,684 | - | - | 3,663 | 3,663 | - | - | (85) | (85) | 106 | 106 |  |  |
| 2013 | SERC | 1307 | Greenwood (SC) Commissioners of Public Works | u.s. | 3,991 | 3,991 | - | - | 3,969 | 3,969 14653 | - | : | (192) | ${ }^{(192)}$ | 115 4.81 | 115 4,181 |  |  |
| 2013 | serc | 1308 | Gulf power Company | u.s. | 145,379 | 145,379 | - | - | 144,553 | 144,553 | - | - | $(3,355)$ | $(3,355)$ | 4,181 | 4,181 |  |  |
| 2013 | SERC | 1586 | Haywood EMC | u.s. | 3,933 24,362 | 3,933 24,362 | - | : | 3,911 24,224 | 3,911 24,224 | : | $:$ | ${ }_{\text {(562) }}^{(91)}$ | ${ }_{(562)}^{(91)}$ | 113 701 | 113 701 |  |  |
| 2013 | SERC | 1309 | ${ }^{\text {Ilinois Municipal Electric Agency }}$ | u.s. | 24,362 | 24,362 | - | - | 24,224 | 24,224 | - | - | ${ }_{(562)}^{(4)}$ | (562) | 701 | 701 |  |  |
| 2013 | SERC | 1480 | Itta Bena, Ms | u.s. | 181 | 181 | - | - | 180 3853 | 180 3 3 | - | - | ${ }^{(4)}$ | (4) | 5 | 5 |  |  |
| 2013 | serc | 1587 | Jefferson Davis Electric Cooperative, Inc. | u.s. | 3,674 | 3,674 | - | - | 3,653 | 3,653 | - | - | (85) | (85) | 106 | 106 |  |  |
| 2013 | SERC | 1617 | Kentucky Municipal Power | u.s. | 9,081 | 9,081 | - | - | 9,029 | 9,029 | - | - | ${ }^{(210)}$ | (210) | 261 | 261 |  |  |
| 2013 | SERC | 1481 | Kosciusko, Ms | u.s. | 883 386 | 883 | - | $\cdot$ | 878 | 878 | $\cdot$ | $\cdot$ | $(20)$ | ${ }^{(20)}$ | 25 | 25 |  |  |
| 2013 | SERC | $\begin{aligned} & 1482 \\ & 1313 \end{aligned}$ | Leland, MS | u.s. | 386 | 386 | - | - | 384 | 384 | $\cdot$ | $\cdot$ | (9) | (9) | 11 | 11 |  |  |
| 2013 2013 | SERC SERC | $\begin{aligned} & 1313 \\ & 1314 \\ & 14 \end{aligned}$ | McCormick Commission of Public Works Mississippi Power Company | u.s. u.s. | 201 134,284 | 201 134,284 | $:$ | $:$ | 200 133,521 | $\begin{array}{r} 200 \\ 133.521 \end{array}$ | $:$ | $:$ | (5) $(3,099)$ | (5) $(3,099)$ | $\begin{array}{r} 6 \\ 3,862 \end{array}$ | 6 3,862 |  |  |
| 2013 | SERC serc | $\begin{aligned} & 1314 \\ & 1630 \\ & 160 \end{aligned}$ | Mississippi Power Company Mt. Carmel Public Utility | $\begin{aligned} & \text { U.S. } \\ & \text { u.s. } \end{aligned}$ | 134,284 1,211 | 134,284 1,211 | - | : | $\begin{array}{r}133,521 \\ 1,204 \\ \hline 18\end{array}$ | 133,521 1,204 | $:$ | $:$ | ${ }^{(3,099)}$ | ${ }^{(3,099)}$ | 3,862 35 | 3,862 35 |  |  |
| 2013 2013 | SERC SERC | 1630 1315 | Mt. Carmel Public Utility Municipal Electric Authority of Georgia | $\begin{aligned} & \text { u.s. } \\ & \text { u.s. } \end{aligned}$ | 1,211 134,763 | 1,211 134,763 | : | : | 1,204 133,99 | 1,204 133,997 | : | : | ${ }_{(3,110)}^{(28)}$ | $\begin{array}{r} (28) \\ (3,110) \end{array}$ | $\begin{array}{r} 35 \\ 3,876 \end{array}$ | 35 3,876 |  |  |
| 2013 | serc | 1316 | N.C. Electric Membership Corp. | u.s. | 155,401 | 155,401 | - | - | 154,519 | 154,519 | - | - | $(3,586)$ | $(3,586)$ | 4,469 | 4,469 |  |  |
| 2013 | serc | 1588 | Northeast Louisiana Power Cooperative, Inc. | u.s. | 3,989 | 3,989 | - | - | 3,966 | 3,966 | - | - | (92) | (92) | 115 | 115 |  |  |
| 2013 | serc | 1574 | Northern Virginia Electric Cooperative | u.s. | 50,650 | 50,650 | - | - | 50,362 | 50,362 | - | - | $(1,169)$ | $(1,169)$ | 1,457 | 1,457 |  |  |
| 2013 | serc | 1319 | Old Dominion Electric Cooperative | u.s. | 74,326 | 74,326 | - | - | 73,904 | 73,904 | - | - | $(1,715)$ | $(1,715)$ | 2,138 | 2,138 |  |  |
| 2013 | serc | 1618 | Osceola (Arkansas) Municipal Light and Power | u.s. | 2,343 | 2,343 | - | - | 2,330 | 2,330 | - | - | (54) | (54) | 67 | 67 |  |  |
| 2013 | serc | 1320 | Owensboro (KY) Municipal Utilities | u.s. | 11,396 | 11,396 | - | - | 11,332 | 11,332 | - | - | (263) | (263) | 328 | 328 |  |  |
| 2013 | SERC | 1322 | Piedmont EMC in Duke and Progress Areas | u.s. | 6,410 | 6,410 | - | - | 6,374 | 6,374 | - | - | (148) | (148) | 184 | 184 |  |  |
| 2013 | SERC SERC | 1323 1589 | Piedmont Municipal Power Agency (PMPA) | u.s. | 28,135 3,433 | 28,135 | - | - | 27,975 | 27,975 | - | $:$ | (649) | (649) | 809 | 809 |  |  |
| 2013 | serc | 1589 | Pointe Coupee Electric Memb. Corp. | u.s. | 3,433 | 3,433 | - | - | 3,413 | 3,413 | - | - | (79) | (79) | 99 | 99 |  |  |
| 2013 | serc | 1266 | Powersouth Energy | u.s. | 106,057 | 106,057 | - | - | 105,455 1995 | 105,455 19295 | - | - | $(2,448)$ | ${ }^{(2,448)}$ | 3,050 577 | 3,050 577 |  |  |
| 2013 | serc | 1330 | Prairie Power, Inc. | u.s. | 20,059 | 20,059 | - | - | 19,945 | 19,945 | - | - | (463) | (463) | 577 | 577 |  |  |
| 2013 | SERC | 1324 | Progress Energy Carolinas | u.s. | 576,051 | 576,051 | - | - | 572,778 | 572,778 | - | - | $(13,294)$ $(182)$ | ${ }_{(13,294)}$ | 16,567 | 16,567 |  |  |
| 2013 | serc | 1325 | Rutherford EMC | u.s. | 16,804 | 16,804 | - | - | 16,709 | 16,709 | - | - | (388) | (388) | 483 | 483 |  |  |
| 2013 | SERC | 1631 | Sam Rayburn G\&T Electric Cooperative Inc. | u.s. | 22,604 | 22,604 | - | - | 22,476 28,558 | $\begin{array}{r}22,476 \\ \hline 28558\end{array}$ | - | - | ${ }^{(522)}$ | ${ }^{\text {(522) }}$ | 650 8,73 | ${ }_{6} 650$ |  |  |
| 2013 | serc | 1326 | South Carolina Electric \& Gas Company | u.s. | 284,172 | 284,172 | - | - | 282,558 | 282,558 | - | - | $(6,558)$ | $(6,558)$ | 8,173 | 8,173 |  |  |
| 2013 | SERC | 1327 | South Carolina Public Service Authority | u.s. | 140,662 | 140,662 | - | - | 139,863 | 139,863 | - | - | $(3,246)$ | $(3,246)$ | 4,045 | 4,045 |  |  |
| 2013 | SERC | 1590 | South Louisiana Electric Cooperative Association | u.s. | 7,972 | 7,972 | - | - | 7,927 | 7,927 | - | - | (184) | (184) | 229 | 229 |  |  |
| 2013 | SERC | 1328 | South Missisisippi Electric Power Association | u.s. | 130,831 | 130,831 | - | - | 130,088 | 130,088 | - | - | $(3,019)$ | $(3,019)$ | 3,763 | 3,763 |  |  |
| 2013 | SERC | 1329 | Southern Illinois Power Cooperative | u.s. | 19,544 | $\begin{array}{r}19,544 \\ \hline 3568\end{array}$ | - | - | 19,433 | 19,433 | - | - | (451) | ${ }^{(451)}$ | 562 | 562 |  |  |
| 2013 | SERC SERC | 1591 | Southwest Louisiana Electric Membership Corporation | u.s. | 33,568 | 33,568 5,370 | - | - | 33,377 5,339 | 33,377 | - | - | (775) | (775) | 965 154 | 965 154 |  |  |
| 2013 | SERC SERC | 1619 | Southwester Electric Cooperative, Inc. | u.s. | 5,370 2043543 | 5,370 2043503 | - | - | \% $\begin{array}{r}\text { 5,339 } \\ \text { 2, } \\ \hline 1934\end{array}$ | 5,339 | - | : | ${ }^{(127124)}$ | ${ }_{(124)}^{(17.162)}$ | 154 58771 | 154 5871 |  |  |
| 2013 | SERC | 1331 | Tennessee Valley Authority | u.s. | 2,043,543 | 2,043,543 | - | - | 2,031,934 | 2,031,934 | - | - | (47, 162) | (47, 162) | 58,771 | 58,771 |  |  |
| 2013 | Serc Serac | 1632 | Tex-La Electric Cooperative of Texas, Inc | u.s. | 2,633 | 2,633 | - | - | 2,618 | 2,618 | - | - | ${ }^{(61)}$ | ${ }^{(61)}$ | 76 | 76 |  |  |
| 2013 | serc | 1332 | Tombigbee Electric Cooperative Inc. | u.s. | 1,671 | 1,671 | - | - | 1,662 | 1,662 | - | - | (39) | (39) | 48 | 48 |  |  |
| 2013 | SERC | 1594 | Town of Sharssburg, N.C. | u.s. | 251 | ${ }^{251}$ | - | - | 249 | 249 | - | - | ${ }^{(6)}$ | ${ }^{(6)}$ | 7 | 7 |  |  |
| 2013 | SERC | 1595 | Town of Stantonsburg, N.C. JRO | u.s. | 977 | 977 | - | - | 971 | 971 | - | - | ${ }^{(23)}$ | ${ }^{(23)}$ | 28 | 28 |  |  |
| 2013 | SERC | 1333 | Town of Waynessille NC | u.s. | 1,150 | 1,150 | - | - | 1,143 | 1,143 | - | - | (27) | (27) | 33 | 33 |  |  |
| 2013 2013 | SERC SERC | 1334 1335 | Town of Winnsboro SC Town of Wintervill NC | u.S.S. u.s. | 700 687 | 700 687 | $:$ | $:$ | 696 683 | 696 683 | $:$ | $:$ | ${ }^{(16)}$ | (16) | 20 20 | 20 20 |  |  |
| 2013 2013 | SERC SERC | 1335 1597 | Town of Winterville NC Washingon-St.Tammany Electric Coooperative, Inc. | u.s. u.s. | $\begin{array}{r} 687 \\ 13,725 \end{array}$ | $\begin{array}{r} 687 \\ 13,725 \\ \hline \end{array}$ | : | : | 683 13,647 | 683 13,647 | : | : | (16) | ${ }^{(16)}$ | 20 395 | 20 395 |  |  |
|  |  |  | Total serc |  | 12,747,985 | 12,747,985 | - | - | 12,675,566 | 12,675,566 | - | - | $(294,203)$ | $(294,203)$ | 366,622 | 366,622 | . | . |


| $\begin{aligned} & \text { Data } \\ & \text { Year } \end{aligned}$ | $\begin{gathered} \text { Regional } \\ \text { Entity } \\ \hline \end{gathered}$ | 10 | Entity | country | Total Nerc Assessments |  |  |  | Nerc neL Assessments |  |  |  | Penalty Sanctions |  | NERC Compliance Credits |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Total | US Total | Canada Total | $\begin{gathered} \text { Mexico } \\ \text { Total } \end{gathered}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2013 | SPP | 1246 | American Electric Power | u.s. | 467,343 | 467,343 | - | - | 464,688 | 464,688 | - | - | $(10,786)$ | $(10,786)$ | 13,440 | 13,440 | - | - |
| 2013 | SPP | 1435 | Arkansas Electric Cooperative Corporation (AEP) | u.s. | 64,851 | 64,851 | - | . | 64,483 | 64,483 | - | . | $(1,497)$ | $(1,497)$ | 1,865 | 1,865 | - | - |
| 2013 | SPP | 1247 | Board of Public Utilities (Kansas City KS) | u.s. | 29,884 | 29,884 | - | - | 29,714 | 29,714 | - | - | (690) | (690) | 859 | 859 | - | - |
| 2013 | SPP | 1620 | Board of Public Utilites, City of McPherson, Kansas | u.s. | 11,895 | 11,895 | - | - | 11,827 | 11,827 | - | - | (275) | (275) | 342 | 342 |  | - |
| 2013 | Spp | 1647 | Carthage City Water \& Light | u.s. | 4,078 | 4,078 | - | - | 4,055 | 4,055 | - | - | (94) | (94) | 117 | 117 | - | - |
| 2013 | SPP | 1469 | Central Valley Electric Cooperative | u.s. | 10,719 | 10,719 | - | - | 10,658 | 10,658 | - | - | (247) | (247) | 308 | 308 | - | - |
| 2013 | SPP | 1556 | City of Bentonville | u.s. | 8,173 | 8,173 | - | - | 8,127 | 8,127 | - | - | (189) | (189) | 235 | 235 | - | - |
| 2013 | SPP | 1557 | City of Clarksdale, Mississipi | u.s. | 2,071 | 2,071 | - | - | 2,059 | 2,059 | - | - | (48) | (48) | 60 | 60 | - | - |
| 2013 | SPP | 1558 | Hope Water \& Light (HWL) | u.s. | 3,788 | 3,788 | - | - | 3,766 | 3,766 | - | - | (87) | (87) | 109 | 109 | - | - |
| 2013 | SPP | 1559 | City of Minden | u.s. | 2,044 | 2,044 | - | - | 2,033 | 2,033 | - | - | (47) | (47) | 59 | 59 | - | - |
| 2013 | SPP | 1635 | The City of Osage City | u.s. | 458 | 458 | - | - | 455 | 455 | - | - | (11) | (11) | 13 | 13 | - | - |
| 2013 | Spp | 1636 | City of Presoott | u.s. | 1,114 | 1,114 | - | - | 1,108 | 1,108 | - | - | (26) | ${ }^{(26)}$ | 32 | 32 | - | - |
| 2013 | SPP | 1248 | Independence Power \& Light (Independence, MO) | u.s. | 13,526 | 13,526 | - | - | 13,449 | 13,449 | - | - | (312) | (312) | 389 | 389 | - | - |
| 2013 | SPP | 1436 | City Utilites of Springfield, MO | u.s. | 40,217 | 40,217 | - | - | 39,988 | 39,988 | - | - | (928) | (1928) | 1,157 | 1,157 | - | - |
| 2013 | SPP | 1249 | Cleco Power LLC | u.s. | 199,410 | 149,410 | - | - | 148,562 | 148,562 | - | - | (3,448) | $(3,448)$ | 4,297 | 4,297 | - | - |
| 2013 | SPP | 1437 | East Texas Electric Coop, Inc. | u.s. | 5,304 | 5,304 | - | - | 5,274 | 5,274 | - | - | (122) | (122) | 153 | 153 | - | - |
| 2013 | SPP | 1250 | The Empire District Electric Company | u.s. | 67,143 | 67,143 | - | - | 66,761 | 66,761 | - | - | $(1,550)$ | $(1,550)$ | 1,931 | 1,931 | - | - |
| 2013 | SPP | 1470 | Farmers' Electric Coop | u.s. | 5,573 | 5,573 | - | - | 5,541 | 5,541 | - | - | (129) | (129) | 160 | 160 | - | - |
| 2013 | SPP | 1438 | Golden Spread Electric Coop | u.s. | 72,747 | 72,747 | - | - | 72,334 | 72,334 | - | - | $(1,679)$ | $(1,679)$ | 2,092 | 2,092 | - | - |
| 2013 | SPP | 1251 | Grand River Dam Authority | u.s. | 61,745 | 61,745 | - | - | 61,394 | 61,394 | - | - | $(1,425)$ | $(1,425)$ | 1,776 | 1,776 | - | - |
| 2013 | SPP | 1648 | Jonesboro City Water \& Light | u.s. | 16,671 | 16,671 | - | - | 16,577 | 16,577 | - | - | (385) | (385) | 479 | 479 | - | - |
| 2013 | SPP | 1252 | Kansas City Power \& Light (KCPL) | u.s. | 199,606 | 199,606 | - | - | 198,472 | 198,472 | - | - | $(4,67)$ | $(4,607)$ | 5,741 | 5,741 | $\cdot$ | - |
| 2013 | Spp | 1439 | Kansas Electric Power Coop., Inc | u.s. | 28,182 | 28,182 | - | - | 28,022 | 28,022 | - | - | ${ }^{(650)}$ | ${ }^{(650)}$ | 811 | 811 | - | - |
| 2013 | SPp | 1440 | Kansas Municipal Energy Agency ( KCPL) | u.s. | 5,089 | 5,089 | - | - | 5,060 | 5,060 | - | - | (117) | (117) | 146 | 146 | $\cdot$ | - |
| 2013 | SPP | 1637 | Kansas Power Pool | u.s. | 19,405 | 19,405 | - | - | 19,295 | 19,295 | - | - | (448) | (448) | 558 | 558 | - |  |
| 2013 | Spp | 1560 | Kaw Valley Electric Cooperative, Inc. | u.s. | 2,067 | 2,067 | - | - | 2,055 | 2,055 | - | - | (48) | (18) | 59 | 59 | - | - |
| 2013 | Spp | 1649 | Kennett Board of Public Works | u.s. | 2,150 | 2,150 | - | - | 2,138 | 2,138 | - | - | (50) | (50) | 62 | 62 | - | - |
| 2013 | Spp | 1598 | ${ }^{\text {KCPPL L GMOC ( Greater Missour Operations Company) }}$ | u.s. | ${ }^{111,445}$ | 111,445 | - | - | ${ }^{110,812}$ | 110,812 | - | $\cdot$ | (2,572) | (2,572) | 3,205 | 3,205 | - | - |
| 2013 | SPP | 1471 | Lafayette Utilities System | u.s. | 26,533 | 26,533 | - | - | 26,382 | 26,382 | - | - | (612) | (612) | 763 | 763 | - | - |
| 2013 | SPP | 1472 | Lea County Electric Coop | u.s. | 16,371 | 16,371 | - | - | 16,278 | 16,278 | - | - | ${ }^{(378)}$ | ${ }^{(378)}$ | 471 | 471 | $\cdot$ | - |
| 2013 2013 | $\begin{gathered} \text { spp } \\ \text { spp } \end{gathered}$ | 1253 1650 | Louisiana Energy \& Power Authority (LEPA) | u.s. | 12,983 649 | 12,983 649 | : | $:$ | $12,909$ | $12,909$ | : | $:$ | $\underset{(300)}{(15)}$ | $\underset{\substack{(300) \\(15)}}{ }$ | 373 19 | 373 19 | $:$ | $:$ |
| 2013 | Spp | 1441 | Midwest Energy Inc. | U.S. | 23,340 | 23,340 | : | : | 23,208 | 23,208 | : | : | ${ }_{(539)}$ | ${ }_{(539)}$ | 19 671 | ${ }_{671}$ | : | $\div$ |
| 2013 | Spp | 1443 | Missour Joint Municipal Electric Utility Commission | u.s. | 32,768 | 32,768 | - | - | 32,582 | 32,582 | - | - | (756) | (756) | 942 | 942 | - | - |
| 2013 | Spp | 1638 | Nemaha Marshall lectric Cooperative (NMEC) | u.s. | 713 | 713 | . | - | 709 | 709 | - | - | (16) | (16) | 21 | 21 | - | - |
| 2013 | SPp | 1442 | Northeast Texas Electric Cooperative, Inc. | u.s. | ${ }^{41,642}$ | ${ }^{41,642}$ | - | - | 41,405 | 41,405 | - | - | (961) | (961) | 1,198 | 1,198 | - | - |
| 2013 | SPP | 1255 | Oklahoma Gas and Electric co. | u.s. | 364,728 | 364,728 | - | - | 362,656 | 362,656 | - | - | (8,417) | $(8,417)$ | 10,489 | 10,489 | - | - |
| 2013 | SPP | 1444 | Oklahoma Municipal Power Auth | u.s. | 34,665 | 34,665 | - | - | 34,468 | 34,468 | - | - | (800) | (800) | 997 | 997 | - | - |
| 2013 | SPP | 1639 | OzMo Ozark Missour, West Plains Mo | u.s. | 2,685 | 2,685 | - | - | 2,670 | 2,670 | - | - | (62) | (62) | 77 | 77 | - | - |
| 2013 | SPP | 1651 | Paragould Light, Water \& Cable | u.s. | 7,523 | 7,523 | - | - | 7,480 | 7,480 | - | - | (174) | (174) | 216 | 216 | - | - |
| 2013 | Spp | 1652 | Piggott Municipal Light, Water \& Sewer | u.s. | 529 | 529 | . | - | 526 | 526 | - | . | (12) | (12) | 15 | 15 |  | - |
| 2013 | SPP | 1653 | Poplar Bluff Municipal Utilities | u.s. | 4,930 | 4,930 | - | - | 4,902 | 4,902 | - | - | (114) | (114) | 142 | 142 | - |  |
| 2013 | SPP | 1561 | Public Service Commission of Yazoo City of Missisispi | u.s. | 1,574 | 1,574 | - | - | 1,565 | 1,565 | - | - | (36) | (36) | 45 | 45 | - | - |
| 2013 | SPP | 1473 | Roosevelt County Electric Coop | u.s. | 2,462 | 2,462 | - | - | 2,448 | 2,448 | - | - | (57) | (57) | 71 | 71 | - | $\cdot$ |
| 2013 | Spp | 1654 | Sikeston Board of Municipal Utilities | u.s. | 5,138 | 5,138 | - | - | 5,109 | 5,109 | - | - | ${ }^{(119)}$ | ${ }^{(119)}$ | 148 | 148 | - | - |
| 2013 | SPp | 1257 | Southwestern Public Service Co. (SPS-XCEL) | u.s. | 256,152 | 256,152 | - | - | 254,696 | 254,696 | - | - | (5,912) | (5,912) | 7,367 | 7,367 |  | - |
| 2013 | SPP | 1256 | Sunflower Electric Power Cooperative | u.s. | 66,468 | 66,468 | - | - | 66,091 | 66,091 | - | - | $(1,534)$ | $(1,534)$ | 1,912 | 1,912 | - | - |
| 2013 2013 | Spp Spp | 1445 1475 | Tex- La Electric Cooperative of Texas Tri County lectric Coop | u.s.s. u.s. | 6,551 5,155 | 6,551 5,155 | : | - | 6,514 5,126 | 6,514 5,126 | - | : | (151) (119) | (151) (119) | 188 148 | 188 148 | $:$ | - |
| 2013 | SPP | 1475 | Tri County Electric Coop | u.s. | 5,155 | 5,155 | - | - | 5,126 | 5,126 | - | - | (119) | ${ }^{(119)}$ | 148 7818 | $\begin{array}{r}148 \\ 7 \\ 7 \\ \hline 188\end{array}$ | - | - |
| 2013 | SPP | 1260 | Westar Energy, Inc. | u.s. | 271,858 | 271,858 | - | - | 27.0314 | 270,314 | - | - | $(6,274)$ | $(6,274)$ | 7.818 | 7,818 | - | - |
| 2013 | SPP | 1259 | Western Farmers Electric Cooperative | u.s. | 108,566 | 108,566 | - | - | 107,950 | 107,950 | - | - | $(2,506)$ | $(2,506)$ | 3,122 | 3,122 | - | - |
| 2013 | SPP | 1501 | West Texas Municipal Power Agency | u.s. | 36,444 | 36,444 | - | - | 36,236 | 36,236 | - | - | (841) | (841) | 1,048 | 1,048 | - |  |
|  |  |  | TOTAL SPP |  | 2,737,128 | 2,737,128 | - | - | 2,721,578 | 2,721,578 | - | . | $(63,168)$ | (63,168) | 78,718 | 78,718 | - | - |
| 2011 | TRE | 1019 | ercot | u.s. | 4,203,151 | 4,203,151 | . | . | 4,179,274 | 4,179,274 | . | . | $(97,022)$ | (97,002) | 120,879 | 120,879 | . | . |
|  |  |  |  |  | 4,203,151 | 4,203,151 | - |  | 4,179,274 | 4,179,274 | - |  | (97,02) | (97,002) | 120,879 | 120,879 | - |  |


| $\begin{aligned} & \text { Data } \\ & \text { Year } \end{aligned}$ | RegionalEntity | 10 | Entity | Country | Total NERC Assessments |  |  |  | NERC NEL Assessments |  |  |  | Penalty Sanctions |  | NERC Compliance Credits |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Total | US Total | Canada Total | $\begin{gathered} \text { Mexico } \\ \text { Totala } \end{gathered}$ |
| 2013 | wecc |  | Alberta Electric System Operator | Canada | 511,339 | . | 511,339 | - | 761,021 | - | 761,021 | - | . | . | (249,682) | . | (249,682) |  |
| 2013 | wecc |  | British Columbia Hydro \& Power Authority | Canada | 762,637 | . | 762,637 | - | 741,199 | - | 741,199 | . | . | - | 21,438 |  | 21,438 |  |
| 2013 | wecc |  | Comision Federal de Electricidad | Mexico | 150,123 | - | . | 150,123 | 145,903 | - | . | 145,903 |  | . | 4,220 | - | . | 4,220 |
| 2013 | wecc |  | Aguila lrigation District - APS | u.s. | 392 | 392 | - | - | 390 | 390 | - | - | (9) | (9) | 11 | 11 | - | - |
| 2013 | wecc |  | Aha Macav Power Service | u.s. | 319 | 319 | - | - | 318 | 318 | - | - | (7) | (7) |  | 9 | - | - |
| 2013 | wecc |  | Ajo Improvement District | u.s. | 174 | 174 | - | - | 173 | 173 | - | - | (4) | (4) | 5 | 5 | - | - |
| 2013 | wecc |  | Ak-Chin | u.s. | 490 | 490 | - | - | 487 | 487 | - | - | (11) | (11) | 14 | 14 | - |  |
| 2013 | wecc |  | Alcoa Inc | u.s. | 43,689 | 43,689 | - | - | 43,440 | 43,440 | - | - | $(1,008)$ | $(1,008)$ | 1,256 | 1,256 | - |  |
| 2013 | wecc |  | Arizona Public Service Company | u.s. | 376,545 | 376,545 | - | - | 374,406 | 374,406 | - | - | (8,690) | (8,690) | 10,829 | 10,829 | . |  |
| 2013 | wecc |  | Arkanssa River Power Authority (ARPA) | u.s. | 2,971 | 2,971 | - | - | 2,954 | 2,954 | - | - | (69) | (69) | 85 | 85 | - |  |
| 2013 | wecc |  | Avista Corporation | u.s. | 749 | 749 | - | - | 745 | 745 | - | - | (17) | (17) | 22 | 22 | - | - |
| 2013 | wecc |  | Avista Corporation | u.s. | 120,985 | 120,985 | - | - | 120,298 | 120,298 | - | - | (2,792) | $(2,792)$ | 3,479 | 3,479 | - | $\cdot$ |
| 2013 | wecc |  | Barrick Goldstrike Mines Inc. | u.s. | 14,907 | 14,907 | - | - | 14,822 | 14,822 | - | - | (344) | (344) | 429 | 429 | - | - |
| 2013 | wecc |  | Basin Electric Power Cooperative | u.s. | 752 | 752 | - | - | 748 | 748 | - | - | (17) | (17) | 22 | 22 | - | $\cdot$ |
| 2013 | wecc |  | Basin Electric Power Cooperative | u.s. | 38,619 | 38,619 | - | - | 38,399 | 38,399 | - | - | ${ }^{(891)}$ | ${ }^{(891)}$ | 1,111 | 1,111 | - |  |
| 2013 | wecc |  | Benton REA | u.s. | 6,968 | 6,968 | - | - | 6,929 | 6,929 | - | - | (161) | (161) | 200 | 200 | - | - |
| 2013 | wecc |  | Big Bend Electric Coooperative, Inc. | u.s. | 1,763 | 1,763 | - | - | 1,753 | 1,753 | - | - | ${ }_{(141)}$ | ${ }_{(141)}$ | ${ }_{51}^{51}$ | ${ }_{51}^{51}$ | - | - |
| 2013 | wecc |  | Big Bend Electric Coooperative, Inc. | u.s. | 4,558 | 4,558 | - | - | 4,532 | 4,532 | - | - | (105) | (105) | 131 | 131 | - | - |
| 2013 | wecc |  | Blachly-Lane Electric Cooperative | u.s. | 2,195 2435 | 2,195 2435 | - | - | 2,183 | 2,183 | - | - | ${ }_{\text {(51) }}$ | ${ }_{\text {(51) }}$ | ${ }^{63}$ | ${ }^{63}$ | - | - |
| 2013 | wecc |  | Black tills Power | u.s. | 24,345 | 24,345 | - | - | 24,207 | 24,207 | - | - | (562) | (562) | 700 | 700 | - | - |
| 2013 | wecc |  | Black Hills Power/Cheyenne Light fuel \& Power | u.s. | 37,317 | 37,317 | - | - | 37,105 | 37,105 | - | - | ${ }^{(861)}$ | ${ }^{(861)}$ | 1,073 | 1,073 | - |  |
| 2013 | WECC |  | Black Hills state University South Dakota | u.s. | 249 | 249 | $\cdot$ | - | 248 | 248 | - | - | ${ }^{(6)}$ | ${ }^{(6)}$ | 7 | 7 | $\cdot$ | - |
| 2013 | WECC WECC |  | Bonnevill Power Administration Bonnevill Power Administration | u.s. | 86 171 | 86 171 | $:$ | $:$ | 86 170 | $\begin{array}{r}86 \\ \hline 170\end{array}$ | - | - | ${ }^{(2)}$ | ${ }^{(2)}$ | 2 | 2 | - | - |
| 2013 | wecc WECC |  | Bonnevill Power Administration Bonneville Power Administration | u.s. u.s. | 171 9,844 | 171 9,844 | $:$ | $:$ | 170 9,788 | 170 9,788 | $:$ | $:$ | ${ }_{\text {(22) }}^{(4)}$ | ${ }_{\text {(22) }}^{(4)}$ | 5 283 | 5 283 | - | $:$ |
| 2013 | wecc |  | Bonneville Power Administration | u.s. | 23,557 | 23,557 | - | - | 23,423 | 23,423 | - | - | (544) | (544) | 677 | 677 | - |  |
| 2013 | wecc |  | Bonneville Power Administration | u.s. | 48,448 | 48,448 | - | - | 48,172 | 48,172 | - | - | $(1,118)$ | $(1,118)$ | 1,393 | 1,393 | - | - |
| 2013 | wecc |  | BPA - Big Bend/Schrag Load | u.s. | 472 | 472 | - | - | 469 | 469 | - | - | ${ }^{(11)}$ | ${ }^{(11)}$ | 14 | 14 | - | - |
| 2013 | wecc |  | BPA - kittitas Load | u.s. | 93 | 93 | - | - | 93 | 93 | - | - | (2) | (2) | 3 | 3 | - |  |
| 2013 | wecc |  | BPA - USBR Load | u.s. | 1,665 | 1,665 | - | - | 1,656 | 1,656 | - | - | ${ }^{(38)}$ | (38) | 48 | 48 |  | - |
| 2013 | WECC Wecc |  | Buckeve Water Conservation and Drainage District - APS Bureau of Reclamation (Desalter) - co osw EMM0 |  | 250 10 | 250 10 | $:$ | $:$ | 249 10 | 249 10 | $:$ | $:$ | ${ }^{(6)}$ | ${ }^{(6)}$ | ${ }_{0}$ | 7 | $:$ | $:$ |
| 2013 | wecc |  | Bureau of Reclamation (Desalter) - - 0 DSW EMMO Bureau of Reclamation (Wellield) - $/$ O OSW EMMO | u.s. | 10 | 10 | $\cdot$ | $\cdot$ | 10 | 10 | $\cdot$ | $\cdot$ | ${ }^{(0)}$ | ${ }^{(0)}$ | 0 | 0 | . | $:$ |
| 2013 | WECC WECC |  | Bureau of Reclamation (Wellfield) - clo DSW EMMO Burington | U.S. U.S. | 82 464 | 82 464 | : | $:$ | 82 461 | 82 461 | $:$ | : | ${ }_{(11)}^{(2)}$ | ${ }_{(11)}^{(2)}$ | ${ }_{13}^{2}$ | ${ }_{13}^{2}$ | : |  |
| 2013 | wecc |  | California Independent System Operator | u.s. | 2,935,271 | 2,935,271 | - | - | 2,918,596 | 2,918,596 | - | - | $(67,741)$ | (67,741) | 84,416 | 84,416 | - | - |
| 2013 | wecc |  | Canby Public Utility Board | u.s. | 2,289 | 2,289 | - | - | 2,276 | 2,276 | - | - | (53) | (53) | 66 | 66 | - |  |
| 2013 | wecc |  | Central Arizona Water Conservation District | u.s. | 33,258 | 33,258 | - | - | 33,069 | 33,069 | - | - | (768) | (768) | 956 | 956 | - | - |
| 2013 | wecc |  | Central Electric Cooperative | u.s. | 7,695 | 7,695 | - | - | 7,651 | 7,651 | - | - | (178) | (178) | 221 | 221 | - | - |
| 2013 | wecc |  | Central Lincoln PUD | u.s. | 17,064 | 17,064 | - | - | 16,967 | 16,967 | - | - | (394) | (394) | 491 | 491 | - |  |
| 2013 | wecc |  | Central Montana Electric Power Cooperative | u.s. | 806 | 806 | - | - | 802 | 802 | - | - | (19) | (19) | 23 | 23 | - | $\cdot$ |
| 2013 | wecc |  | Central Montana Electric Power Cooperative | u.s. | 4,015 | 4,015 | - | - | 3,993 | 3,993 | - | - | (93) | (93) | 115 | 115 | - |  |
| 2013 | wecc |  | City of Aztee Electric Dept | u.s. | 502 | 502 | - | - | 499 | 499 | - | - | (12) | (12) | 14 | 14 | - | - |
| 2013 | wecc |  | City of Bandon | u.s. | 851 | 851 | - | - | 846 | 846 | - | - | (20) | (20) | 24 | 24 | - |  |
| 2013 | wecc |  | City of Blaine | u.s. | 989 | 989 | - | - | 983 | 983 | - | - | (23) | (23) | 28 | 28 | - | - |
| 2013 | wecc |  | City of Bonners ferry | u.s. | 916 | 916 | - | - | 911 | 911 | - | - | (21) | (21) | 26 | 26 |  | - |
| 2013 | wecc |  | City of Cascade Locks | u.s. | 248 | 248 | - | - | 247 | 247 | - | - | ${ }^{(6)}$ | ${ }^{(6)}$ | 7 | 7 | - | - |
| 2013 | wecc |  | City of Centralia | u.s. | 3,419 | 3,419 | - | - | 3,399 | 3,399 | - | - | (79) | (79) | 98 | 98 | . | $\cdot$ |
| 2013 | wecc |  | City of Cheney | u.s. | 1,887 | 1,887 | - | - | 1,876 | 1,876 | - | - | (44) | (44) | 54 | 54 | - | - |
| 2013 | WECC WECC |  | City of Chewelah City of Drain | u.s. | 301 213 | 301 213 | $:$ | $:$ | 299 | 299 | $:$ | $:$ | (7) | ${ }_{\text {(7) }}$ | 9 | ${ }_{6}^{9}$ | $:$ | $:$ |
| 2013 | wecc |  | City of Drain | u.s. | 213 | 213 | - | - | 212 | 212 | - | - | (5) | (5) | 6 | 6 | $\cdot$ | $\cdot$ |
| 2013 | WECC WECC |  | City of Ellensburg city f fallon | u.s. | 2,625 | 2,625 | - | - | 2,610 | 2,610 468 | - | $:$ | ${ }^{(61)}$ | ${ }^{(61)}$ | 75 | 75 | : | . |
| 2013 | WECC WECC |  | City of Fallon | u.s. | 471 | ${ }^{471}$ | $\cdot$ | - | 468 | ${ }_{4}^{468}$ | - | $\cdot$ | (11) | (11) | 14 | 14 | - | $\cdot$ |
| 2013 | wecc |  | City of Farmington | u.s. | 12,954 | 12,954 | - | - | 12,881 | 12,881 | - | - | (299) | (299) | 373 | 373 | - | - |
| 2013 | wecc |  | City of forest Grove | u.s. | 3,240 | 3,240 | - | - | 3,221 | 3,221 | - | - | (75) | (75) | 93 | 93 | - | - |
| 2013 | wecc |  | City of Gallup | u.s. | 2,399 | 2,399 | - | - | 2,385 | 2,385 | - | - | (55) | (55) | ${ }^{69}$ | 69 | - | - |
| 2013 2013 | WECC Wecc |  | City of Henderson city of Herriston, DBA Hermiston Energy Services | u.s.s. u.S. | + $\begin{array}{r}541 \\ 1,404\end{array}$ | 541 1,404 | : | $:$ | 538 1,396 | 538 1,396 | $:$ | $:$ | ${ }_{(12)}^{(12)}$ | ${ }_{(12)}^{(12)}$ | 16 40 | 16 40 | $:$ | - |
| 2013 | wecc |  | city of Herriston, DEA Hermiston Energy Services City of las vegas | U.S. | ${ }_{528}$ | 1,428 | : | . | 525 | ${ }_{525}$ | . | . | (12) | (12) | 15 | 15 | - | - |

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \& \& \& \& \& \multicolumn{4}{|c|}{Total Nerc Assessments} \& \multicolumn{4}{|c|}{Nerc nel assessments} \& \multicolumn{2}{|l|}{Penalty Sanctions} \& \multicolumn{4}{|c|}{NERC Compliance Credits} <br>
\hline $$
\begin{aligned}
& \text { Data } \\
& \text { year }
\end{aligned}
$$ \& $$
\begin{gathered}
\text { Regional } \\
\text { Entity } \\
\hline
\end{gathered}
$$ \& ID \& Entity \& Country \& Total \& US Total \& Canada Total \& Mexico Total \& Total \& US Total \& Canada Total \& Mexico Total \& Total \& US Total \& Total \& US Total \& Canada Total \& $$
\begin{gathered}
\text { Mexico } \\
\text { Total }
\end{gathered}
$$ <br>
\hline 2013 \& wecc \& \& City of Mccleary \& u.s. \& 397 \& 397 \& - \& - \& 395 \& 395 \& - \& - \& (9) \& (9) \& 11 \& 11 \& - \& - <br>
\hline 2013 \& wecc \& \& City of McMinnville \& u.s. \& 9,735 \& 9,735 \& - \& . \& 9,680 \& 9,680 \& - \& - \& (225) \& (225) \& 280 \& 280 \& - \& - <br>
\hline 2013 \& wecc \& \& City of Mesa \& u.s. \& 3,305 \& 3,305 \& - \& . \& 3,286 \& 3,286 \& . \& - \& (76) \& (76) \& 95 \& 95 \& - \& - <br>
\hline 2013 \& wecc \& \& City of Milton \& u.s. \& 765 \& 765 \& - \& - \& 760 \& 760 \& - \& - \& (18) \& (18) \& 22 \& 22 \& - \& - <br>
\hline 2013 \& wecc \& \& City of Milton-Freewater \& u.s. \& 1,434 \& 1,434 \& - \& - \& 1,426 \& 1,426 \& - \& \& (33) \& (33) \& 41 \& 41 \& - \& - <br>
\hline 2013 \& wecc \& \& City of Monmouth \& u.s. \& 940 \& 940 \& - \& - \& 935 \& 935 \& - \& - \& (22) \& (22) \& 27 \& 27 \& - \& - <br>
\hline 2013 \& wecc \& \& City of Needles \& u.s. \& 392 \& 392 \& - \& - \& 389 \& 389 \& - \& - \& ${ }^{(9)}$ \& ${ }^{(9)}$ \& 11 \& ${ }^{11}$ \& - \& - <br>
\hline 2013 \& wecc \& \& City of North Las Vegas \& u.s. \& 59 \& 59 \& - \& - \& 58 \& 58 \& - \& - \& (1) \& (1) \& 2 \& 2 \& - \& - <br>
\hline 2013 \& wecc \& \& City of Page \& u.s. \& 1,165 \& 1,165 \& - \& - \& 1,159 \& 1,159 \& - \& - \& (27) \& (27) \& 34 \& 34 \& - \& - <br>
\hline ${ }_{2013}$ \& wecc \& \&  \& u.s. \& 455

9 \& 455 \& : \& : \& 452
9 \& 452
9,199 \& $:$ \& : \& (10) \& (10) \& 13
266 \& 13
266 \& $:$ \& $:$ <br>
\hline ${ }_{2013}$ \& wecc \& \& City of Port Angeles \& u.s. \& 9,252 \& ${ }^{9,252}$ \& - \& - \& 9,199 \& 9,199 \& - \& - \& ${ }^{(214)}$ \& ${ }^{(214)}$ \& 266 \& ${ }_{2}^{266}$ \& - \& $\cdot$ <br>
\hline 2013 \& WECC \& \& City of Redding
city of Richand \& u.s. \& 10,105
11301 \& 10,105 \& - \& - \& 10,047 \& 10,047
11237 \& - \& - \& ${ }^{(233)}$ \& ${ }^{(233)}$ \& 291 \& 291 \& - \& - <br>
\hline 2013 \& WECC \& \& City of Roseville \& U.S. \& 11,301
15,603 \& ${ }_{15,003}^{11,31}$ \& : \& : \& ${ }_{15,515}^{11,27}$ \& 115,515 \& : \& $:$ \& ${ }_{(360)}^{(261)}$ \& ${ }_{(1360)}^{(261)}$ \& 325
449 \& 325
449 \& $\because$ \& : <br>
\hline 2013 \& wecc \& \& City of Shasta Lake \& u.s. \& 2,441 \& 2,441 \& - \& - \& 2,427 \& 2,427 \& - \& - \& (56) \& (56) \& 70 \& 70 \& - \& - <br>
\hline 2013 \& wecc \& \& City of Sumas \& u.s. \& 392 \& 392 \& - \& - \& 390 \& 390 \& - \& - \& (9) \& (9) \& 11 \& 11 \& - \& - <br>
\hline 2013 \& wecc \& \& City of Tacoma DBA Tacoma Power \& u.s. \& 4 \& 4 \& - \& - \& 4 \& 4 \& . \& - \& (0) \& (0) \& 0 \& 0 \& - \& - <br>
\hline 2013 \& wecc \& \& City of Tacoma DBA Tacoma Power \& u.s. \& 63,299 \& 63,299 \& - \& - \& 62,940 \& 62,940 \& $\cdot$ \& - \& (1,461) \& (1,461) \& 1,820 \& 1,820 \& - \& - <br>
\hline 2013 \& wecc \& \& City of Troy \& u.s. \& 222 \& 222 \& - \& - \& 221 \& 221 \& - \& - \& (5) \& (5) \& 6 \& 6 \& - \& $\cdot$ <br>
\hline 2013 \& wecc \& \& City of Williams \& u.s. \& 495 \& 495 \& - \& - \& 492 \& 492 \& - \& - \& (11) \& (11) \& 14 \& 14 \& - \& - <br>
\hline 2013 \& wecc \& \& Clark County Water Resources \& u.s. \& 978 \& 978 \& - \& - \& 973 \& 973 \& - \& - \& (23) \& (23) \& 28 \& 28 \& - \& - <br>
\hline 2013 \& wecc \& \& Clark Public Utilities \& u.s. \& 56,694 \& 56,694 \& - \& - \& 56,372 \& 56,372 \& - \& - \& $(1,388)$ \& $(1,328)$ \& 1,630 \& 1,630 \& - \& - <br>
\hline 2013 \& wecc \& \& Clatskanie PUD \& u.s. \& 11,916 \& 11,916 \& - \& - \& 11,849 \& 11,849 \& - \& - \& (275) \& (275) \& 343 \& 343 \& - \& - <br>
\hline 2013 \& wecc \& \& Clearwater Cooperative, Inc \& u.s. \& 505 \& 505 \& - \& - \& 502 \& 502 \& - \& - \& (12) \& (12) \& 15 \& 15 \& - \& - <br>
\hline 2013 \& wecc \& \& Clearwater Cooperative, Inc \& u.s. \& 2,157 \& 2,157 \& - \& - \& 2,144 \& 2,144 \& - \& - \& (50) \& (50) \& 62 \& 62 \& - \& - <br>
\hline 2013 \& wecc \& \& Colorado River Commission of Nevada \& u.s. \& 11,021 \& 11,021 \& - \& - \& 10,959 \& 10,959 \& - \& - \& (254) \& (254) \& 317 \& 317 \& - \& - <br>
\hline 2013 \& wecc \& \& Colorado Springs Utilities \& u.s. \& 773 \& 773 \& - \& - \& 768 \& 768 \& . \& - \& (18) \& (18) \& 22 \& 22 \& - \& - <br>
\hline 2013 \& wecc \& \& Colorado Springs Utilities \& u.s. \& 58,904 \& 58,904 \& - \& - \& 58,569 \& 58,569 \& - \& - \& $(1,359)$ \& $(1,559)$ \& 1,694 \& 1,694 \& - \& - <br>
\hline 2013 \& wecc \& \& Columbia Basin Electric Cooperative, Inc. \& u.s. \& 1,432 \& 1,432 \& - \& - \& 1,424 \& 1,424 \& - \& - \& (33) \& (33) \& 41 \& 41 \& - \& - <br>
\hline 2013 \& wecc \& \& Columbia Falls Aluminum Company \& u.s. \& 58 \& 58 \& - \& - \& 58 \& 58 \& - \& - \& ${ }^{(1)}$ \& (1) \& 2 \& 2 \& - \& - <br>
\hline 2013 \& wecc \& \& Columbia Power Cooperative Association \& u.s. \& 283 \& 283 \& - \& - \& 281 \& 281 \& - \& - \& (7) \& (7) \& 8 \& 8 \& - \& - <br>
\hline 2013 \& wecc \& \& Columbia River PUD \& u.s. \& 2,164 \& 2,164 \& - \& - \& 2,152 \& 2,152 \&  \& - \& (50) \& (50) \& 62 \& 62 \& - \& - <br>
\hline 2013 \& wecc \& \& Columbia River PUD \& u.s. \& 3,932 \& 3,932 \& - \& - \& 3,909 \& 3,909 \& - \& - \& (91) \& (91) \& 113 \& 113 \& - \& - <br>
\hline 2013 \& wecc \& \& Columbia Rural Electric Association (REA) \& u.s. \& 4,210 \& 4,210 \& - \& - \& 4,186 \& 4,186 \& - \& - \& (97) \& (97) \& 121 \& 121 \& - \& - <br>
\hline 2013 \& wecc \& \& Consolidated I Irigation District No. 19 \& u.s. \& 79 \& 79 \& - \& - \& 78 \& 78 \& - \& - \& (2) \& (2) \& 2 \& 2 \& - \& - <br>
\hline 2013 \& wecc \& \& Consumers Power, Inc. \& u.s. \& 5,445 \& 5,445 \& - \& - \& 5,414 \& 5,414 \& - \& - \& ${ }^{(126)}$ \& ${ }^{(126)}$ \& 157 \& 157 \& - \& - <br>
\hline 2013 \& wecc \& \& Coos-Curry Electric Cooperative, Inc \& u.s. \& 4,489 \& 4,489 \& - \& - \& 4,463 \& 4,463 \& - \& - \& (104) \& (104) \& 129 \& 129 \& - \& - <br>
\hline 2013 \& wecc \& \& Deseret Generation \& Transmission Cooperative \& u.s. \& 1,827 \& 1,827 \& - \& - \& 1,816 \& 1,816 \& - \& - \& (42) \& (42) \& 53 \& 53 \& - \& - <br>
\hline 2013 \& wecc \& \& Doulas Electric Cooperative, Inc. \& u.s. \& 1,216 \& 1,216 \& - \& - \& 1,209 \& 1,209 \& : \& : \& ${ }^{(28)}$ \& ${ }^{(28)}$ \& 35 \& 35 \& - \& . <br>
\hline 2013 \& wecc \& \& Douglas Palisades / PUD No. 1 of DC \& u.s. \& 244 \& 244 \& - \& - \& 242 \& 242 \& . \& - \& (6) \& (6) \& 7 \& 7 \& - \& - <br>
\hline 2013 \& wecc \& \& El Paso Electric Company \& u.s. \& 105,543 \& 105,543 \& - \& - \& 104,943 \& 104,943 \& - \& - \& (2,436) \& ${ }^{(2,436)}$ \& 3,035 \& 3,035
65 \& $:$ \& <br>
\hline 2013
2013 \& wecc
wecc \& \& Electrical Distric \#\#2
Electrical District 2 - - Coolidge Generating Station \& u.s.s.
u.s. \& 2,270 \& 2,270
116 \& $:$ \& $:$ \& 2,257
116 \& $\begin{array}{r}2,257 \\ \hline 116\end{array}$ \& : \& $:$ \& (52) \& ${ }_{\text {(52) }}$ \& 65
3 \& 65
3 \& $:$ \& - <br>
\hline 2013 \& WECC \& \& Electrical District No. 6 of Pinal County - APS \& u.s. \& 12
31 \& 116
31 \& : \& - \& 121
31 \& 116
31 \& . \& : \& (1) \& (1) \& 1 \& ${ }_{1}$ \& : \& : <br>
\hline 2013 \& wecc \& \& Electrical District No. 7 of Maricopa County - APS \& u.s. \& 595 \& 595 \& - \& - \& 591 \& 591 \& - \& - \& (14) \& (14) \& 17 \& 17 \& - \& - <br>
\hline 2013 \& wecc \& \& Electrical District No. 8 of Maricopa County - APS \& u.s. \& 3,498 \& 3,498 \& - \& . \& 3,478 \& 3,478 \& . \& . \& (81) \& (81) \& 101 \& 101 \& - \& - <br>
\hline 2013 \& wecc \& \& Electrical Districts 1 \& 3 \& u.s. \& 7,315 \& 7,315 \& - \& - \& 7,273 \& 7,273 \& - \& - \& ${ }^{(169)}$ \& (169) \& 210 \& 210 \& - \& - <br>
\hline 2013 \& Wecc
WECC \& \& Elmhurst Mutual Power \& Light Company \& u.s. \& 3,534
6,551 \& ${ }^{3,534}$ \& - \& - \& ${ }^{3,514}$ \& ${ }_{3}^{3,514}$ \& : \& - \& ${ }^{(82)}$ \& ${ }^{(82)}$ \& 102 \& 102 \& - \& . <br>
\hline 2013 \& wecc \& \& Emerald Pud \& u.s. \& 6,551 \& 6,551 \& - \& $\cdot$ \& 6,513 \& 6,513 \& - \& - \& ${ }^{(151)}$ \& ${ }^{(151)}$ \& 188 \& 188 \& $\cdot$ \& $\cdot$ <br>
\hline 2013 \& WECC \& \& Energy Northwest \& u.s. \& -462 \& ${ }_{4}^{462}$ \& - \& - \& $\begin{array}{r}459 \\ \hline 31392\end{array}$ \& 459
31342 \& - \& - \& (111) \& (117) \& 13 \& ${ }_{13}^{13}$ \& - \& . <br>
\hline 2013 \& wecc \& \& Eugene Water \& Electric Board \& u.s. \& 31,521 \& 31,521 \& - \& - \& 31,342 \& 31,342 \& - \& - \& (727) \& (727) \& 907 \& 907 \& - \& - <br>
\hline 2013 \& wecc \& \& Fall River Rural Electric Cooperative, Inc. \& u.s. \& 0 \& 0 \& - \& - \& 0 \& 0 \& - \& - \& ${ }^{(0)}$ \& ${ }^{(0)}$ \& O \& 550 \& - \& - <br>
\hline 2013 \& wecc \& \& Flathead Electric Cooperative, Inc \& u.s. \& 19,121 \& 19,121 \& - \& - \& 19,013 \& 19,013 \& - \& - \& (441) \& (441) \& 550 \& 550 \& - \& - <br>
\hline 2013 \& wecc \& \& Fredericsson Power LP \& u.s. \& ${ }^{43}$ \& ${ }^{43}$ \& - \& - \& 43 \& 43 \& - \& - \& (1) \& ${ }^{(1)}$ \& 1 \& 1 \& - \& - <br>
\hline 2013 \& wecc \& \& $G$ Grand Valley Power \& u.s. \& 3,105 \& 3,105 \& - \& - \& 3,087 \& 3,087 \& - \& - \& (72) \& (72) \& 89 \& 89 \& - \& - <br>
\hline 2013 \& wecc \& \& Harney Electric Cooperative, Inc. \& u.s. \& 1,146 \& 1,146 \& - \& - \& 1,139 \& 1,139 \& - \& - \& (26) \& (26) \& 33 \& 33 \& - \& - <br>
\hline 2013 \& wecc
WECC \& \& Harney Electric Cooperative, Inc. \& u.s. \& 1,248 \& 1,248 \& - \& - \& 1,241 \& 1,241 \& - \& $:$ \& ${ }^{(29)}$ \& ${ }^{(29)}$ \& 36 \& 36 \& - \& : <br>
\hline 2013 \& wecc \& \& Harquahala Valley Power Districts - APS \& u.s. \& 1,002 \& 1,002 \& - \& - \& 996 \& 996 \& - \& - \& ${ }^{(23)}$ \& (23) \& 29 \& 29 \& $\cdot$ \& $\cdot$ <br>
\hline 2013
2013 \& WECC
Wecc \& \& Hermiston Power LLC
Holy Cross Energy \& u.s.
u.s. \& 25
15,397 \& 25
15,397 \& $:$ \& $:$ \& 25
15,309 \& 25
15,309 \& : \& $:$ \& (1)
(355) \& (1)
(355) \& 1
443 \& 1
443 \& $:$ \& $:$ <br>
\hline 2013 \& WECC \& \& Hood River Electric Cooperative \& U.s. \& 557 \& 15,357 \& : \& : \& 15,309 \& 15,354 \& : \& $:$ \& (13) \& (13) \& 16 \& 16 \& : \& : <br>
\hline
\end{tabular}

| $\begin{aligned} & \text { Data } \\ & \text { Year } \end{aligned}$ | $\begin{gathered} \text { Regional } \\ \text { Entity } \end{gathered}$ | 10 | Entity | Country | Total NERC Assessments |  |  |  | Nerc nel Assesments |  |  |  | Penalty Sanctions |  | NERC Compliance Credits |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Total | US Total | Canada Total | $\begin{gathered} \text { Mexico } \\ \text { Total } \end{gathered}$ |
| 2013 | wecc |  | Idaho County Light and Power Cooperative Association, Inc. | u.s. | 749 | 749 | - | - | 745 | 745 | - | - | (17) | (17) | 22 | 22 | - | - |
| 2013 | wecc |  | Idaho Power Company | u.s. | 206,441 | 206,441 | - | . | 205,268 | 205,268 | - | - | $(4,764)$ | $(4,764)$ | 5,937 | 5,937 | - |  |
| 2013 | wecc |  | Imperial lrigation District | u.s. | 46,258 | 46,258 | - | - | 45,995 | 45,995 | - | - | (1,068) | $(1,068)$ | 1,330 | 1,330 | - | - |
| 2013 | wecc |  | Inland Power and Light Company | u.s. | 6,037 | 6,037 | - | - | 6,003 | 6,003 | - | . | (139) | (139) | 174 | 174 | - |  |
| 2013 | wecc |  | Inland Power and Light Company | u.s. | 6,314 | 6,314 | - | - | 6,278 | 6,278 | - | - | (146) | (146) | 182 | 182 | - |  |
| 2013 | wecc |  | Intermountain Rural Electric Association | u.s. | 27,212 | 27,212 | - | - | 27,057 | 27,057 | - | - | (628) | (628) | 783 | 783 | - |  |
| 2013 | wecc |  | Kaiser Aluminum Fabricated Products LIC | u.s. | 3,936 | 3,936 | - | - | 3,913 | 3,913 | - | - | (91) | (91) | 113 | 113 | - | $\cdot$ |
| 2013 | wecc |  | Kootenai Electric Cooperative, Inc. | u.s. | 5,932 | 5,932 | - | - | 5,899 | 5,899 | - | - | ${ }^{(137)}$ | ${ }^{(137)}$ | 171 | 171 | - | - |
| 2013 | wecc |  | Lakeview Light \& Power | u.s. | 3,465 | 3,465 | - | - | 3,445 | 3,445 | - | - | (80) | (80) | 100 | 100 | - | - |
| 2013 | wecc |  | Lane Electric Cooperative, Inc. | u.s. | 2,910 | 2,910 | - | - | 2,893 | 2,893 | - | - | (67) | ${ }^{(67)}$ | 84 | 84 | - | - |
| 2013 | wecc |  | Las vegas Valley Water District | u.s. | 1,180 1,496 | 1,180 1,496 | : | : | 1,174 1,488 | 1,174 1,888 | $:$ | : | ${ }_{(127)}^{(35)}$ | ${ }_{(127)}^{(27)}$ | 34 43 | 34 43 | $:$ | $:$ |
| 2013 2013 | wecc |  | Lincoln Electric Cooperative, Inc. Los Angeles Department of Water and Power | u.s. | 1,496 | 1,996 | $\cdot$ | $\cdot$ | 1,488 | 1,488 362610 | - | - | (135) | (35) | 43 | 43 | - | - |
| 2013 2013 | Wecce wecc |  | Los Angeles Department of Water and Power Lost iver flectric Cooperativ, | u.s. u.s. | 364,682 0 | 364,682 0 | $:$ | $:$ | 362,610 0 | 362,610 0 | $:$ | $:$ | (8,416) $(0)$ | $(8,416)$ $(0)$ | 10,488 0 | 10,488 0 | . |  |
| 2013 | wecc |  | Lower Valley Energ, Inc. | u.s. | 1 | 1 | - | - | 1 | 1 | - | - | (0) | (0) | 0 | , | - |  |
| 2013 | wecc |  | Maricopa County Municipal Water Conservation Dist No. 1- APS | u.s. | 662 | 662 | - | - | 658 | 658 | - | - | (15) | (15) | 19 | 19 |  |  |
| 2013 | wecc |  | McMullen Valley Water Conservation \& Drainage District - APS | u.s. | 883 | 883 | - | - | 878 | 878 | - | - | (20) | (20) | 25 | 25 | - |  |
| 2013 | wecc |  | Merced Irrigation District | u.s. | 5,942 | 5,942 | - | - | 5,908 | 5,908 | - | . | (137) | (137) | 171 | 171 | . | - |
| 2013 | wecc |  | Midstate Electric Cooperative, Inc. | u.s. | 5,233 | 5,233 | - | - | 5,203 | 5,203 | - | $\cdot$ | ${ }^{(121)}$ | ${ }^{(121)}$ | 150 | 150 | $\cdot$ | - |
| 2013 | wecc |  | Mission Valley Power | u.s. | 5,224 | 5,224 | - | - | 5,195 | 5,195 | - | - | (121) | (121) | 150 | 150 | - |  |
| 2013 | wecc |  | Modern Electric Water Company | u.s. | 2,966 | 2,966 | - | - | 2,950 | 2,950 | - | - | (68) | (68) | 85 | 85 | - | - |
| 2013 | wecc |  | Modesto Irrigation District | u.s. | 32,565 | 32,565 | - | - | 32,380 | 32,380 | - | - | (752) | (752) | 937 | 937 | - |  |
| 2013 | wecc |  | Montana-Dakota Utilities Co. | u.s. | 259 | 259 | - | - | 257 | 257 | - | - | (6) | (6) | 7 | 7 | - |  |
| 2013 | wecc |  | Mt . Wheeler Power | u.s. | 7,085 | 7,085 | - | - | 7,044 | 7,044 | - | - | (164) | (164) | 204 | 204 | - |  |
| 2013 | wecc |  | Municipal Energy Agency of Nebraska | u.s. | 2,522 | 2,522 | - | - | 2,508 | 2,508 | - | - | (58) | (58) | 73 | 73 | - |  |
| 2013 | wecc |  | Municipal Energy Agency of Nebraska | u.s. | 8,457 | 8,457 | - | - | 8,409 | 8,409 | - | - | (195) | (195) | 243 | 243 | $\cdot$ | - |
| 2013 | wecc |  | Navajo Agricillural Products Industry (NAPI) | u.s. | 14 | 14 | - | - | 14 | 14 | - | - | (0) | (0) | 0 | 0 | - |  |
| 2013 | wecc |  | Navajo Tribal Utility Authority | u.s. | 687 | ${ }_{687}^{681}$ | - | - | ${ }_{683}$ | 683 | - | - | ${ }^{(16)}$ | ${ }^{(16)}$ | 20 | 20 | $\cdot$ | - |
| 2013 | wecc |  | Navajo Tribal Utility Authority | u.s. | 3,614 | 3,614 | - | - | 3,594 | 3,594 | - | - | (83) | (83) | 104 | 104 | - |  |
| 2013 | wecc |  | Navopache Electric Cooperative, Inc. | u.s. | 4,683 | 4,683 | - | - | 4,656 | 4,656 | - | - | (108) | (108) | 135 | 135 |  |  |
| 2013 | WECC |  | Nebraska Public Power Marketing | u.s. | 74 738 | 74 738 | : | : | 73 734 | 73 734 | : | $:$ | ${ }^{(2)}$ | ${ }^{(2)}$ | ${ }_{21}$ | ${ }_{21}$ | : |  |
| 2013 | Wecc WECC |  | Nespelem Valley Electric Cooperative, Inc. | u.s. | 738 335892 | 738 335892 | $:$ | $:$ | 734 33384 | 734 333,984 | $:$ | $:$ | ${ }_{\text {(1752) }}^{(17)}$ | ${ }^{(17752)}$ | - 21 | - $\begin{array}{r}21 \\ 9,660\end{array}$ | $:$ |  |
| 2013 2013 | wecc WECC |  | Nevada Power Company dba NV Energy Noble Americas Energy Solutions, Lic | u.s. u.s. | 335,892 21,143 | 335,892 21,143 | $:$ | $:$ | 333,984 21,023 | 333,984 21,023 | : | $:$ | $\underset{(1788)}{(1,72)}$ | $\underset{(1782)}{(488)}$ | 9,660 608 | 9,660 608 | - |  |
| 2013 | wecc |  | Northern Lights, Inc. | u.s. | 460 | 460 | - | - | 458 | 458 | - | - | (11) | (11) | 13 | 13 |  | - |
| 2013 | wecc |  | Northern Lights, Inc. | u.s. | 3,319 | 3,319 | - | - | 3,301 | 3,301 | - | - | (77) | (77) | 95 | 95 | - |  |
| 2013 | wecc |  | Northern Wasco County PUD | u.s. | 7,031 | 7,031 | - | - | 6,991 | ${ }^{6,991}$ | - | - | ${ }^{(162)}$ | ${ }^{(162)}$ | 202 | 202 | - | $\cdot$ |
| 2013 | wecc |  | NorrhWestern Corp. daa NorthWestern Energy, uc | u.s. | 3,048 | 3,048 | - | - | 3,030 | 3,030 | - | - | (70) | (70) | 88 | 88 | . | - |
| 2013 | wecc |  | NorrhWestern Corp. dba NorthWestern Energy, LLC | u.s. | 115,821 | 115,821 | - | - | 115,163 | 115,163 | - | - | (2,673) | (2,673) | 3,331 | 3,331 | - |  |
| 2013 | WECC Wecc |  | Ohop Mutual Light Company Oras Power and Light Cooperative | u.s. | 1,097 2 2 | 1,097 2,753 | $:$ | $:$ | 1,090 2737 | 1,090 <br> 2737 | $:$ | $:$ | (25) (64) | ${ }_{(125)}^{(64)}$ | 32 79 | 32 79 | $:$ | - |
| 2013 | wecc |  | Orcas Power and Light Cooperative | u.s. | 2,753 | 2,753 | - | - | 2,737 | 2,737 | - | - | (64) | (64) | 79 | 79 | : | : |
| 2013 2013 | WECC WECC |  | Oregon Trail Electric Consumers Cooperative, Inc. Overton Power District No. 5 | u.s. u.s. | 4,475 4,815 | 4,475 4,815 | : | $:$ | 4,449 4,788 | 4,449 4,788 | : | $:$ | ${ }^{(103)}$ | ${ }^{(103)}$ | 129 | 129 138 | - | . |
| 2013 2013 | Wecc Wecc |  | Overton Power District No. 5 Pacificorp | u.s. u.s. | 4,815 24 | 4,815 24 | : | : | 4,788 24 | 4,788 24 | $:$ | : | ${ }_{(111)}^{(11)}$ | ${ }_{(111)}^{(11)}$ | 138 1 | 138 1 | - | : |
| 2013 | wecc |  | Pacificorp | u.s. | 27 | 27 | . | . | 27 | 27 | . | . | (1) | (1) | 1 | 1 | . |  |
| 2013 | wecc |  | Pacificorp | u.s. | 889 | 889 | - | - | 884 | 884 | - | - | (21) | (21) | 26 | 26 | - | - |
| 2013 | wecc |  | Pacificorp | u.s. | 1,469 | 1,469 | - | - | 1,461 | 1,461 | - | - | (34) | (34) | 42 | 42 | - |  |
| 2013 | wecc |  | ${ }^{\text {Pacificicorp }}$ Prest | u.s. | 639,140 | ${ }^{639,140}$ | - | - | $\begin{array}{r}635,509 \\ \hline 28808\end{array}$ | 635,509 | - | - | (14,750) | $(14,750)$ | 18,381 | ${ }_{7}^{18,381}$ | - |  |
| 2013 | wecc |  | Pacificorp West (PACW) | u.s. | 269,559 | 269,559 | - | - | 268,028 | 268,028 | - | $\cdot$ | $(6,221)$ | $(6,221)$ | 7,752 | 7,752 |  | - |
| 2013 | wecc |  | Parkland Light and Water Company | u.s. | 1,545 | 1,545 | - | - | 1,536 | 1,536 | - | - | ${ }^{(36)}$ | (36) | 44 | 44 | - | - |
| 2013 | wecc |  | Pend Oreille County Pud No. 1 | u.s. | 12,842 | 12,842 | - | - | 12,769 | 12,769 | - | - | (296) | (296) | 369 | 369 | - | - |
| 2013 | wecc |  | Peninsula Light Company, Inc. | u.s. | 7,684 | 7,684 | - | - | 7,640 | 7,640 | - | - | (177) | (177) | 221 | 221 | - |  |
| 2013 | wecc |  | Platte River Power Authority | u.s. | 40,990 | 40,990 | - | - | 40,757 | 40,757 | - | - | (946) | (946) | 1,179 | 1,179 |  | $\cdot$ |
| 2013 | wecc |  | Port of Seattle - Seattle-Tacoma International Airport | u.s. | 1,784 | 1,784 | - | - | 1,774 | 1,774 | - | - | (41) | (41) | 51 | 51 | - | - |
| 2013 | wecc |  | Port Townsend Paper Corporation | u.s. | 2,106 | 2,106 | - | - | 2,094 | 2,094 | - | - | (49) | (49) | 61 | 61 | - | - |
| 2013 | wecc |  | Portland General Electric Company | u.s. | 234,991 | 234,991 | - | - | 233,656 | 233,656 | - | - | $(5,423)$ | $(5,423)$ | 6,758 | 6,758 | - | - |
| 2013 | wecc |  | Public Service Company of Colorado ( (cell) | u.s. | 450 33560 | 450 335250 | - | - | 447 33356 | 447 33356 | - | - | (10) | ${ }^{(10)}$ | ${ }^{13}$ | ${ }^{13}$ | - | - |
| 2013 | wecc |  | Public Service Company of Colorado (Xcel) | u.s. | 335,260 | 335,260 | . | - | 333,356 | 333,356 | - | - | $(7,737)$ | $(7,737)$ | 9,642 | 9,642 | - | - |
| 2013 | wecc |  | Public Service Company of New Mexico | u.s. | 136,281 | 136,281 | - | - | 135,507 | 135,507 | - | - | $(3,145)$ | (3,145) | 3,919 | 3,919 | - | - |
| 2013 | wecc |  | Public Utility District No. 1 of Chelan County | u.s. | 50,856 | 50,856 | - | - | 50,568 | 50,568 | - | - | $(1,174)$ | $(1,174)$ | 1,463 | 1,463 | - | - |
| 2013 | wecc |  | PUD No. 1 of Asotin County | u.s. | 4 | 4 | - | - | 4 | 4 | - | - | ${ }^{(0)}$ | (0) | 0 | 0 | - | - |


| DataYear | $\begin{gathered} \text { Regional } \\ \text { Entity } \end{gathered}$ | 10 | Entity | Country | Total NERC Assessments |  |  |  | NERC NEL Assessments |  |  |  | Penalty Sanctions |  | NERC Compliance Credits |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Total | US Total | Canada Total | $\begin{gathered} \text { Mexico } \\ \text { Total } \end{gathered}$ |
| 2013 | wecc |  | PUD No. 1 of Asotin County | u.s. | 63 | 63 | - | - | 62 | 62 | - | - | (1) | (1) | 2 | 2 | - | - |
| 2013 | wecc |  | PUD No. 1 of Benton County | u.s. | 22,406 | 22,406 | - | - | 22,278 | 22,278 | - | - | (517) | (517) | 644 | 644 | - | - |
| 2013 | wecc |  | PUD No. 1 of Clallam County | u.s. | 8,597 | 8,597 | - | - | 8,548 | 8,548 | - | - | (198) | (198) | 247 | 247 | - | - |
| 2013 | wecc |  | Pud No. 1 of Cowlitz County | u.s. | 66,298 | 66,298 | - | - | 65,922 | 65,922 | - | - | $(1,530)$ | $(1,530)$ | 1,907 | 1,907 | - | - |
| 2013 | wecc |  | Pud No. 1 of Douglas County | u.s. | 113 | 113 | - | - | 112 | 112 | - | - | (3) | (3) | 3 | 3 | - | - |
| 2013 | wecc |  | Pud No. 1 of Douglas County | u.s. | 18,782 | 18,782 | - | - | 18,675 | 18,675 | - | - | (433) | (433) | 540 | 540 | - | - |
| 2013 | wecc |  | PUD No. 1 of Ferry County | u.s. | 1,378 | 1,378 | - | - | 1,370 | 1,370 | - | - | (32) | (32) | 40 | 40 | - | - |
| 2013 | wecc |  | Pud No. 1 of Frankin County | u.s. | 13,460 | 13,460 | - | - | 13,383 | 13,383 | - | - | (311) | (311) | 387 | 387 | - |  |
| 2013 | wecc |  | PUD No. 1 of Grays Harbor | u.s. | 14,989 | 14,989 | - | - | 14,904 | 14,904 | - | - | (346) | (346) | 431 | 431 | - | - |
| 2013 | wecc |  | PUD No. 1 of Jefferson County | u.s. | 3,113 | 3,113 | - | - | 3,095 | 3,095 | - | - | (72) | (72) | 90 | 90 | - | - |
| 2013 | wecc |  | Pud No. 1 of Kititias County | u.s. | 207 | 207 | - | - | 206 | 206 | - | - | (5) | (5) | 6 | 6 | - | - |
| 2013 | wecc |  | PUD No. 1 of Kitititas County | u.s. | 956 | 956 | - | - | 951 | 951 | - | - | (22) | (22) | 28 | 28 | - | - |
| 2013 | wecc |  | Pud No. 1 of Klickitat County | u.s. | 3,799 | 3,799 | - | - | 3,777 | 3,777 | - | - | (88) | (88) | 109 | 109 | - | - |
| 2013 | wecc |  | PUD No. 1 of Lewis County | u.s. | 11,855 | 11,855 | - | - | 11,788 | 11,788 | - | - | (274) | (274) | 341 | 341 | - | - |
| 2013 | wecc |  | PUD No. 1 of Mason County | u.s. | 990 | 990 | - | - | 984 | 984 | $\cdot$ | - | (23) | (23) | 28 | 28 | - | - |
| 2013 | wecc |  | PUD No. 1 of Skamania County | u.s. | 1,702 | 1,702 | - | - | 1,692 | 1,692 | - | - | (39) | (39) | 49 | 49 | - | - |
| 2013 | wecc |  | PUD No. 1 of Snohomish County | u.s. | 86,213 | 86,213 | - | - | 85,723 | 85,723 | - | - | $(1,990)$ | $(1,990)$ | 2,479 | 2,479 | - | - |
| 2013 | wecc |  | Pud No. 1 of Wahkiakum County | u.s. | 557 | 557 | - | - | 554 | 554 | - | - | (13) | (13) | 16 | 16 | - | - |
| 2013 | wecc |  | Pud No. 1 of Whatcom County | u.s. | 63 | 63 | - | - | 63 | 63 |  | - | (1) | (1) | 2 | 2 | - | - |
| 2013 | wecc |  | PUD No. 1 of Whatcom County | u.s. | 2,834 | 2,834 | - | - | 2,818 | 2,818 | $\cdot$ | - | (65) | (65) | 81 | 81 | - | - |
| 2013 | wecc |  | PUD No. 2 of Grant County | u.s. | 631 | 631 | - | - | 627 | 627 | - | - | (15) | (15) | 18 | 18 | - | - |
| 2013 | wecc |  | PUD No. 2 of Grant County | u.s. | 1,183 | 1,183 | - | - | 1,177 | 1,177 | - | - | (27) | (27) | 34 | 34 | - | - |
| 2013 | wecc |  | PUD No. 2 of Grant County | u.s. | 48,501 | 48,501 | - | - | 48,226 | ${ }^{48,226}$ | - | - | $(1,119)$ | (1,119) | 1,395 | 1,399 | - | - |
| 2013 | wecc |  | PUD No. 2 of Pacific County | u.s. | 3,859 | 3,859 | - | - | 3,837 | 3,837 | - | - | (89) | (89) | 111 | 111 | - | - |
| 2013 | wecc |  | PUD No. 3 of Mason County | u.s. | 8,828 | 8,828 | - | - | 8,778 | 8,778 | - | - | (204) | (204) | 254 | 254 | - | - |
| 2013 | WECC |  | Puget Sound Enersy, Inc. Raft River Electrc, cooperative | u.s. | 308,732 | 308,732 | - | - | 306,978 | 306,978 | : | - | (7,125) | (7,125) | 8,879 | 8,879 | $:$ | : |
| 2013 | Wecc |  | Raft River Electric Cooperative | u.s. | 1 654 | $\begin{array}{r}1 \\ \hline 654\end{array}$ | - | - | 1 650 | 1 650 | - | - | ${ }^{(0)}$ | (0) (15) | 0 | 0 | . | - |
| 2013 | WECC |  | Raton Public Service | u.s. | 654 | ${ }_{6}^{64}$ | - | - | 650 475 | 650 | - | - | (15) | ${ }^{(15)}$ | 19 | 19 | - | - |
| 2013 | wecc |  | Roosevelt llrigation District - - Ps | u.s. | 478 | 478 | - | - | 475 | 475 | - | - | (11) | (11) | 14 | 14 | - | . |
| 2013 | wecc |  | Sacramento Municipal Utility District | u.s. | 141,832 | 141,832 | - | - | 141,026 | ${ }^{141,026}$ | - |  | $(3,273)$ | (3,273) | 4,079 | 4,079 |  | - |
| 2013 | wecc |  | Salem Electric Salt River Project | u.s. U. us | 4,184 365,253 | 4,184 365,53 | $:$ | : | 4,160 36,178 | 4,160 363,178 | : | $:$ | $(97)$ $(8,429)$ | $(977)$ $(8,429)$ | 120 10,504 | 120 10,504 | - | - |
| 2013 2013 | Wecc WECC |  | Salt River Project San Carlos Indian Irigation Project | $\begin{aligned} & \text { U.S. } \\ & \text { u.s. } \end{aligned}$ | 365,253 0 | 365,253 0 | $:$ | $:$ | 363,178 0 | 363,178 ${ }^{\text {a }}$ | : | $:$ | $(8,429)$ $(0)$ | $(8,429)$ $(0)$ | 10,504 0 | 10,504 0 | $:$ | $:$ |
| 2013 | wecc |  | Seattle city light | u.s. | 126,789 | 126,789 | . | . | 126,069 | 126,069 | . | . | $(2,926)$ | $(2,926)$ | 3,646 | 3,646 | . | . |
| 2013 | wecc |  | Sierra Pacific Power Company dba NV Energy | u.s. | 140,436 | 140,436 | - | - | 139,638 | 139,638 | - | - | $(3,241)$ | $(3,241)$ | 4,039 | 4,039 | - | - |
| 2013 | wecc |  | Silver State Energy - c/o Colorado River Commission of Nevada | u.s. | 6,507 | 6,507 | - | - | 6,470 | 6,470 | - | - | (150) | (150) | 187 | 187 | - | - |
| 2013 | wecc |  | Southern Montana Electric Generation \& Transmission | u.s. | 6,601 | 6,601 | - | - | 6,564 | 6,564 | - | - | (152) | (152) | 190 | 190 | - | - |
| 2013 | wecc |  | Southern Nevada Water Authority | u.s. | 1,495 | 1,495 | - | - | 1,487 | 1,487 | - | - | (35) | (35) | 43 | 43 | - | . |
| 2013 | wecc |  | Southwest Transmission Cooperative, Inc. | u.s. | 25,422 | 25,422 | - | - | 25,277 | 25,277 |  | - | (587) | (587) | 731 | 731 | - | - |
| 2013 | wecc |  | Springfield Utility Baard | u.s. | 10,961 | 10,961 | - | - | 10,898 | 10,898 | - | - | (253) | (253) | 315 | 315 | - | - |
| 2013 | wecc |  | Surprise Valley Electrification Corporation | u.s. | 483 | ${ }_{4}^{483}$ | - | - | 480 | 480 | - | - | (11) | ${ }^{(11)}$ | 14 | 14 | - | - |
| 2013 | wecc |  | Tanner Electric Cooperative | u.s. | 1,252 | 1,252 | - | - | 1,245 | 1,245 | - | - | (29) | (29) | 36 | 36 | - | - |
| 2013 | wecc |  | The Incorporated County of Los Alamos | u.s. | 4,600 | 4,600 | - | - | 4,574 | 4,574 | - | - | (106) | (106) | 132 | 132 | - | - |
| 2013 | Wecc WECC |  | Tillamook People's Uutility District | u.s. | 4,744 | 4,744 848 | - | - | 4,717 | 4,717 | : | - | ${ }_{(109)}^{(20)}$ | ${ }^{(109)}$ | $\begin{array}{r}136 \\ \\ \hline 24\end{array}$ | $\begin{array}{r}136 \\ \hline 24\end{array}$ | - | $:$ |
| 2013 | wecc WECC |  | Tohono O'odham Utility Authority | u.s. | 848 287 | 848 287 | $:$ | . | 843 285 | 843 <br> 285 | : | : | (20) | ${ }^{(20)}$ | 24 | 24 | $:$ | : |
| 2013 | wecc |  | Tonopah Irrigation District - APs | u.s. | 287 | 287 | - | - | 285 | 285 |  | - | ${ }^{(7)}$ | ${ }^{(7)}$ | 8 | 8 | \% | - |
| ${ }_{2} 2013$ | Wecc |  | Town of Center | u.s. | 264 | 264 | - | - | 263 | 263 | - | - | ${ }^{(6)}$ | ${ }^{(6)}$ | 8 | 8 | - | $\cdot$ |
| ${ }_{2013}$ | wecc |  | Town of Coulee | u.s. | 220 | 220 | - | - | 219 | 219 | - | - | ${ }^{(5)}$ | ${ }^{(5)}$ | ${ }^{6}$ | ${ }^{6}$ | $\cdot$ | $\cdot$ |
| 2013 | wecc |  | Town of Eatonville | u.s. | 355 | 355 | - |  | 353 | 353 | - | - | (8) | (8) | 10 | 10 | - | $\cdot$ |
| 2013 | wecc |  | Town of fredonia | u.s. | 138 | 138 | - |  | 138 | 138 | - | - | (3) | ${ }^{(3)}$ | 4 | 4 | - | - |
| 2013 | wecc |  | Town of Steliccoom | u.s. | 522 | 522 | - | - | 519 | 519 | - | - | (12) | (12) | 15 | 15 | - | - |
| 2013 | wecc |  | Town of Wickenburg | u.s. | 336 | 336 | - | - | 334 | 334 | . | - | (8) | (8) | 10 | 10 | - | - |
| 2013 | wecc |  | Tri-State Generation \& Transmission Assoc. Inc- Reliability | u.s. | 26,056 | 26,056 | - | - | 25,908 | 25,908 | - | - | (601) | (601) | 749 | 749 | - | - |
| 2013 | wecc |  | Tri-State Generation \& Transmission Assoc. Inc- Reliability | u.s. | 93,740 | 93,740 | - | - | 93,207 | 93,207 | - | - | $(2,163)$ | $(2,163)$ | 2,696 | 2,696 | - | - |
| 2013 | wecc |  | Tri-State Generation \& Transmission Association, Inc. | u.s. | 33,390 | 33,390 | - | - | 33,200 | 33,200 | - | - | (771) | (771) | 960 | 960 | - | - |
| 2013 | wecc |  | Trucke Donner Public Utility District | u.s. | 1,949 | 1,949 | - | - | 1,938 | 1,938 | - | - | (45) | (45) | 56 | 56 | - | - |
| 2013 | wecc |  | Tucson Electric Power Company | u.s. | 190,587 | 190,587 | - | - | 189,504 | 189,504 | - | . | $(4,398)$ | $(4,398)$ | 5,481 | 5,481 | - | - |
| 2013 | wecc |  | Turlock Irigation District | u.s. | 26,976 | 26,976 | - | - | 26,823 | 26,823 | - | - | (623) | (623) | 776 | 776 | - | - |
| 2013 | wecc |  | U.S. Army Yuma Proving Ground | u.s. | 206 | 206 | - | - | 205 | 205 | - | - | ${ }^{(5)}$ | (5) | ${ }^{6}$ | ${ }^{6}$ | - | - |
| 2013 | wecc |  | U.S. BoR Columbia Basin | u.s. | 421 | 421 | - | - | 419 | 419 | - | - | (10) | (10) | 12 | 12 | - | - |
| 2013 | wecc |  | U.S. B BR East Greenacres (Rathrum) | u.s. | 53 | 53 | - | - | 52 | 52 | - | - | (1) | (1) | 2 | 2 | - | - |


|  |  |  |  |  |  | tal NERC Asses | ments |  |  | nerc nel ${ }^{\text {a }}$ | ssessments |  | Penalty |  |  | NERC Complia | ance Credits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \begin{array}{l} \text { Data } \\ \text { Year } \end{array} \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Regional } \\ \text { Entity } \end{gathered}$ | 10 | Entity | Country | Total | US Total | Canada Total | Mexico Total | Total | US Total | Canada Total | Mexico Total | Total | US Total | Total | US Total | Canada Total | $\begin{gathered} \text { Mexico } \\ \text { Total } \end{gathered}$ |
| 2013 | wecc |  | U.S. Bor Spokane Indian Development' | u.s. | 40 | 40 | - | - | 39 | 39 | - | - | (1) | (1) | 1 | 1 | $\cdot$ | . |
| 2013 | wecc |  | U.S. BOR The Dalles Project | u.s. | 232 | 232 | - | - | 230 | 230 | - | - | (5) | (5) |  | 7 | - |  |
| 2013 | wecc |  | U.S. DOE National Energy Technology Laboratory | u.s. | 61 | 61 | - | - | 61 | 61 | - | - | (1) | (1) | , | , | - |  |
| 2013 | wecc |  | Umatilla Electric Cooperative Assocition | u.s. | 14,403 | 14,403 | - | - | 14,321 | 14,321 | - | - | (332) | (332) | 414 | 414 | - | - |
| 2013 | wecc |  | Unit B Irrigation District | u.s. | 2 | $\bigcirc$ | - | - | 0 | 0 | - | - | ${ }^{(0)}$ | (0) | 0 | 0 | - | $\cdot$ |
| 2013 | wecc |  | US Air Force Base, Fairchild | u.s. | 620 | 620 | - | - | 616 | 616 | - | - | (14) | (14) | 18 | 18 | - | - |
| 2013 | wecc |  | US Dept of Energy - Kirtland AFB | u.s. | 5,190 | 5,190 | - | - | 5,160 | 5,160 | - | - | ${ }^{(120)}$ | ${ }^{(120)}$ | 149 | 149 | - | - |
| 2013 | wecc |  | UsDoe Richland | u.s. | 2,371 | 2,371 | - | - | 2,357 | 2,357 | - | - | (55) | (55) | 68 | 68 | - |  |
| 2013 | wecc |  | USN Naval Station, Bremerton | u.s. | 3,167 | 3,167 | - | - | 3,149 | 3,149 | - | - | (73) | (73) | 91 | 91 | - | - |
| 2013 | wecc |  | USN Naval Station, Everett | u.s. | 138 | 138 | - | - | 137 | 137 | - | - | (3) | (3) | 4 | 4 | . | . |
| 2013 | wecc |  | USN Submarine Base, Bangor | u.s. | 2,151 | 2,151 | - | - | 2,139 | 2,139 | - | . | (50) | (50) | 62 | 62 | - |  |
| 2013 | wecc |  | Vera Water and Power | u.s. | 2,968 | 2,968 | - | - | 2,951 | 2,951 | - | - | (68) | (68) | 85 | 85 | - |  |
| 2013 | wecc |  | Vigilante Electric Cooperative, Inc. | u.s. | 201 | 201 | . | - | 200 | 200 | - | - | (5) | (5) | 6 |  | - | . |
| 2013 | wecc |  | Wasco Electric Cooperative | u.s. | 1,226 | 1,226 | - | - | 1,219 | 1,219 | - | - | ${ }^{(28)}$ | ${ }^{(28)}$ | 35 | 35 | - |  |
| 2013 | wecc |  | Wells Rural Electric Cooperative | u.s. | 8,495 | 8,495 | - | - | 8,447 | 8,447 | - | - | (196) | (196) | 244 | 244 | - |  |
| 2013 | wecc |  | Wellton-Mohawk Irrigation \& Drainage District | u.s. | 5 | 5 | - | - | 5 | 5 | - | - | ${ }^{(0)}$ | (0) | 0 | - | - | $\cdot$ |
| 2013 | wecc |  | West Oregon Electric Cooperative, Inc. | u.s. | 162 | 162 | - | - | 162 | 162 | - | - | (4) | (4) | 5 | 5 | - |  |
| 2013 | wecc |  | West Oregon Electric Cooperative, Inc. | u.s. | 713 | 713 | - | - | 709 | 709 | - | - | (16) | (16) | 21 | 21 | - |  |
| 2013 | wecc |  | Western Area Power - Loveland, co | u.s. | 4,601 | 4,601 | - | - | 4,575 | 4,575 | - | - | (106) | (106) | 132 | 132 |  |  |
| 2013 | wecc |  | Western Area Power - Loveland, co | u.s. | 25,958 | 25,958 | - | - | 25,810 | 25,810 | - | - | (599) | (599) | 747 | 747 | - |  |
| 2013 | wecc |  | Western Area Power Administration - CRSP | u.s. | 25,945 | 25,945 | - | - | 25,797 | 25,797 | - | - | (599) | (599) | 746 | 746 | - |  |
| 2013 | wecc |  | Western Area Power Administration - Sierra Nevada Region | u.s. | 16,734 | 16,734 |  | - | 16,638 | 16,638 | - | - | (386) | (386) | 481 | 481 | - |  |
| 2013 | wecc |  | Western Area Power Administration-Desert Southwest Region | u.s. | 40,755 | 40,755 | - | - | 40,523 | 40,523 | - | - | (941) | (941) | 1,172 | 1,172 | - | - |
| 2013 | wecc |  | Western Area Power Administration-Upper Great Plains Region | u.s. | 97 | ${ }^{97}$ | - | - | 97 | 97 | - | - | ${ }^{(2)}$ | ${ }^{(2)}$ | 3 | , | - | - |
| 2013 | wecc |  | Western Area Power Administration-Upper Great Plains Region | u.s. | 4,943 | 4,943 |  | - | 4,915 | 4,915 | - | - | ${ }^{(114)}$ | (114) | 142 | 142 |  |  |
| 2013 | WECC WECC |  | Wyoming Municipal Power Agency Yakama Power | u.s.s. us. | 3,542 274 | 3,542 | $:$ | $:$ | 3,521 273 | 3,521 | $:$ | $:$ | ${ }^{(82)}$ | ${ }_{(82)}$ | 102 | 102 | $:$ | $:$ |
| $\begin{aligned} & 2013 \\ & 2013 \\ & 2013 \end{aligned}$ | wecc wecc |  | Yakama Power ${ }_{\text {l }}^{\text {Yampa Valley Electric Association }}$ | u.s. u.s. | 274 7,968 | 274 7,968 | : | $:$ | 273 7,923 | 273 7,923 | - | $:$ | ${ }_{(184)}$ | ${ }_{(184)}^{(6)}$ | 229 | 229 | $:$ | $:$ |
| 2013 | WEcc |  | Yuma lrrigation District | U.s. | $\begin{array}{r}7,968 \\ \hline\end{array}$ | 7,968 39 |  | - | $\begin{array}{r}7,923 \\ \hline 9\end{array}$ | $\begin{array}{r}7,93 \\ \hline 9\end{array}$ | : | - | (1) | ${ }_{(1)}$ | 22 | 22 | - |  |
| 2013 | wecc |  | Yuma-Mesa Irrigation District | u.s. | 22 |  |  |  | $2 \quad 2$ |  |  |  | (0) | (0) | 0 | 0 | . |  |
|  | TOTAL WECC |  |  |  | 10,733,401 | 9,315,301 | 1,273,976 | 150,123 | 10,910,506 | 9,262,382 | 1,502,220 | 145,903 | (214,982) | (214,982) | 43,877 | 267,901 | $(228,244)$ | 4,220 |
| total ero |  |  |  |  | 55,308,375 | 50,046,840 | 5,111,411 | 150,123 | 56,463,375 | 49,762,532 | 6,554,940 | 145,903 | $(1,155,000)$ | $(1,155,000)$ | 0 | 1,439,308 | $(1,443,588)$ | 4,220 |
| Summary by Regional Entity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2013 | frCC |  |  |  | 2,795,837 | 2,795,837 | - | - | 2,779,954 | 2,779,954 | - | - | (6, 523) | $(64,523)$ | 80,406 | 80,406 | - | - |
| 2013 | mRo |  |  |  | 3,667,984 | 3,066,780 | 601,204 | - | 3,633,662 | 3,049,358 | 584,304 | - | $(70,776)$ | $(70,776)$ | 105,098 | 88,198 | 16,900 | - |
| 2013 | npcc |  |  |  | 6,936,475 | 3,700,244 | 3,236,231 | . | 8,147,639 | 3,679,224 | 4,468,415 | . | $(85,396)$ | $(85,396)$ | $(1,125,768)$ | 106,416 | (1,232,184) | . |
| 2013 | RF |  |  |  | 11,480,414 | 11,480,414 | - | - | 11,415,196 | 11,415,196 | - | - | $(264,949)$ | (264,949) | 330,168 | 330,168 | - | . |
| 2013 | serc |  |  |  | 12,747,985 | 12,747,985 | - | - | 12,675,566 | 12,675,566 | - | - | $(294,203)$ | $(294,203)$ | 366,622 | 366,622 | - | $\cdot$ |
| 2013 | SpP |  |  |  | 2,737,128 | 2,737,128 | - | - | 2,721,578 | 2,721,578 | - | - | $(63,168)$ | $(63,168)$ | 78,718 | 78,718 | - | - |
| 2013 | TRE |  |  |  | 4,203,151 | 4,203,151 | 9 | 12 | 4,179, 274 | 4,179,274 | 2 | 9 | $(97,02)^{\prime}$ | (97,002) | 120,879 | 12,879 | - | - |
| 2013 | wecc |  |  |  | 10,739,401 | 9,315,301 | 1,273,976 | 150,123 | 10,910,506 | 9,262,382 | 1,502,220 | 145,903 | (214,982) | (214,982) | 43,877 | 267,901 | $(228,244)$ | 4,220 |
| Total |  |  |  |  | 55,308,375 | 50,046,840 | 5,111,411 | 150,123 | 56,463,375 | 49,762,532 | 6,554,940 | 145,903 | (1,155,000) | (1,155,000) | 0 | 1,439,308 | $(1,43,528)$ | 4,220 |

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \& \& \& \& \& \multicolumn{4}{|l|}{} \& \multicolumn{4}{|c|}{Regional Entit NEL A ssessments} \& \multicolumn{2}{|l|}{try sa} \& \multicolumn{3}{|c|}{Npec corc Progam} \& \multicolumn{4}{|l|}{Wecc Compliance Assessments exataso)} \& \multicolumn{4}{|c|}{Wras assessments} <br>
\hline ${ }_{\substack{\text { data } \\ \text { vear }}}$ \& $$
\begin{gathered}
\text { Regional } \\
\text { Entity } \\
\hline
\end{gathered}
$$ \& 10 \& tuty \& countr \& \& Total USTotal \& da \& Eexico Total \& Total \& US Total \& Canada Total \&  \& Total \& us Total \& Total \& US Total \& $$
\begin{array}{r}
\text { Canada } \\
\text { Total }
\end{array}
$$ \& Total \& Us Total \& Cenada \& mexico \& Total \& Us Total \& $$
\begin{gathered}
\text { canadat } \\
\text { Total } \\
\text { Totic }
\end{gathered}
$$ \& (ticted <br>
\hline 2013 \& frac \& 1074 \& Alachua, city of \& us. \& 3,300 \& 3,300 \& \& . \& 3,395 \& 3,395 \& . \& . \& (95) \& (99) \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }^{2013}$ \& ${ }_{\text {FRCC }}$ \& ${ }^{1075}$ \& Batow, City of \& us. \& 7,438 \& 7,438 \& \& \& ${ }^{7}, 653$ \& 7,653 \& . \& . \& (215) \& (215) \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }_{2013}^{2013}$ \&  \& 1076
107 \&  \& U.s. \& (1,000 \& ${ }_{\text {1, }}^{1,000}$ \& \& \& 1,029
020,268 \& 1,029
20,266 \& \& \& ${ }_{(569)}^{(29)}$ \& ${ }_{(1569)}^{(29)}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013 \& frac \& 1078 \& Florida Power L Light C . \& us. \& 2,99,641 \& 2,999,641 \& \& \& 3,086,224 \& 3,086,224 \& - \& \& ${ }^{185583)}$ \& ${ }^{18,583)}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }_{2013}^{2013}$ \& $\xrightarrow{\text { Prach }}$ \& 1079 \& Florid Public utilites Company \& us. \& 9,679 \& 9,679 \& \& . \& 9,958 \& 9,958 \& - \& . \& (127) \& (129) \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013
2013 \& $\substack{\text { frcc } \\ \text { frec }}$ \& ${ }_{1080}^{1081}$ \& Cainesill Regiona Uutites \& U.S. \& ${ }_{\substack{48,27 \\ 13,92}}$ \& ${ }_{\substack{48,9,97 \\ 13,97}}$ \& \& : \&  \& 49,699
14,375 \& $:$ \& : \& ${ }_{\substack{\text { (1,329) } \\ \text { (403) }}}^{(129)}$ \& $\underset{\substack{(1,303) \\(023)}}{(102)}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013 \& fract \& 1082 \& JEA \& us. \& 327,72 \& 327,72 \& . \& \& 337,71 \& 337,171 \& \& \& (9,459) \& (9,459) \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013 \& Fract \& 1083 \& Lakeland Electric \& us. \& 79,969 \& 79.969 \& - \& \& ${ }^{82,277}$ \& ${ }^{82,277}$ \& \& - \& ${ }^{(2,3308)}$ \& (2,308) \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013
2013 \& $\substack{\text { frcc } \\ \text { frcc }}$ \& 1626
161 \& Lee County lectric cooperative, inc
cityof tae worth \& us. \&  \&  \& : \& : \& 103,319
12289
12, \& 103,319
12289 \& : \& : \& $\underset{\substack{\text { 2,899] } \\(345)}}{ }$ \& $\underset{\substack{12,899) \\(345)}}{(1)}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013 \& frac \& 1084 \& Mount Dora, city of \& us. \& 2,436 \& 2,436 \& - \& - \& 2,506 \& ${ }_{2,506}$ \& - \& - \& (70) \& (70) \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }_{2013}$ \& frich \& 1085 \& New Smynn Beach, Uutities Sommision of \& us. \& 10.575 \& 10,575 \& - \& - \& 10,880 \& 10,880 \& - \& - \& ${ }^{(305)}$ \& ${ }^{(305)}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }_{2013}^{2013}$ \& ${ }_{\text {crec }}^{\text {FRCC }}$ \& ${ }_{1086}^{1086}$ \& Orand O Uities Commision \& us. \& 159.980
1074354
1 \& 155,980
$1.074,354$ \& \& - \& (100,482 \& 16,082

1,05364 \& - \& : \& (4,502) \& ${ }^{(14.502]}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013 \& ${ }_{\text {frec }}$ \& ${ }_{1088}^{1087}$ \&  \& U.s. \& ${ }_{\substack{1,04,3,34 \\ 3,726}}$ \& ${ }_{\text {1, }}^{1,276}$ \& \& : \&  \& $\underset{\substack{1,05,363 \\ 3,83}}{\substack{\text { c, }}}$ \& : \& : \& $\underset{\substack{\text { (31,011) } \\ \text { (108) }}}{(1)}$ \& ${ }_{\text {(108) }}^{\text {(120011) }}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }^{2013}$ \& fract \& 1089 \& Reedy Creek Improvement D Ststict \& us. \& ${ }^{33,094}$ \& ${ }^{33,094}$ \& \& - \& ${ }^{34,5050}$ \& ${ }^{34,550}$ \& - \& - \& (955) \& (995) \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }_{2013}^{2013}$ \& ${ }_{\text {FRCC }}^{\text {fecc }}$ \& 1090 \& St. Coud, City flouc) \& us. \& (16,520 \& ${ }_{\substack{16,520 \\ 73531}}$ \& \& : \& ${ }_{\substack{1,9,97 \\ 7554}}$ \& -16,977 \& : \& : \& ${ }^{(477)}$ \& ${ }_{\text {c }}^{(1477)}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }_{2013}^{2013}$ \&  \& 1091 \&  \& u.s. \& ${ }_{\substack{725,331}}^{\text {73, }}$ \& 73,31
525,375 \& \& $:$ \& 75,54
540,539 \& 75,544
50,539 \& $:$ \& $:$ \& ${ }_{(0,150}^{(2,12)}$ \& ${ }_{(0,12,125)}^{(2,12)}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013 \& frcc \& 1603 \& City of Vero Beach \& us. \& 20,24 \& 20,26 \& \& - \& 20,830 \& 20,830 \& - \& - \& (584) \& (584) \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }^{2013}$ \& frcc \& 1093 \& Wauchula, City of \& us. \& 1,692 \& 1.692 \& \& - \& 1,741 \& 1,741 \& . \& . \& (49) \& (49) \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }_{2013}^{2013}$ \& $\xrightarrow[\substack{\text { FRrC } \\ \text { fric }}]{ }$ \& 1094 \& willison, City of
Winter Park, city \& U.s. \& $\underset{\substack{877 \\ 11,85}}{ }$ \& $\underset{\substack{877 \\ 11,85}}{ }$ \& : \& \& (12,177 \& 902
12.177 \& \& \& ${ }^{(325)}$ \& ${ }_{\text {(132) }}^{(125)}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013 \& frac \& 1072 \& Florida Municipal Power Agency \& us. \& ${ }_{151,366}$ \& 151,336 \& . \& \& 155,04 \& \multicolumn{3}{|l|}{\multirow[b]{2}{*}{155,74
368,64}} \& (4,358) \& (4,388) \& \& \& \& \& \& \& \& \& \& \& <br>
\hline \multirow[t]{2}{*}{2013} \& frac \& 1073 \& Seminole Electric Cooperative \& us. \& 358,272 \& 358,272 \& \& - \& 368,614 \& \& \& \& (10,341) \& \multicolumn{11}{|l|}{(10,341)} \& <br>
\hline \& \& \& \multicolumn{2}{|l|}{Total frcc} \& 6,002,838 \& \multicolumn{3}{|l|}{6,062,888} \& 6,237,838 \& 6,237,838 \& - \& \& (175,000) \& (175,000) \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }_{2013}$ \& Mro \& ${ }^{1199}$ \& \multicolumn{2}{|l|}{Bsain Electric Power Cooperative u.s.} \& 458,968 \& \multicolumn{3}{|l|}{458,968} \& 482,072 \& \multicolumn{3}{|l|}{482,072} \& (23,104) \& \multicolumn{12}{|l|}{(123,04)} <br>

\hline ${ }_{2013}^{2013}$ \& Mro \& | 1201 |
| :--- |
| 1204 | \& Bent ust \& us. \& ${ }_{\substack{91,985 \\ 66,211}}^{\text {a }}$ \& \multicolumn{3}{|l|}{${ }_{9} 91,985$} \& ce, 96,15 \& \multicolumn{3}{|l|}{96,615} \& (14.339) \& \multirow[t]{2}{*}{} \& \& \& \& \& \& \& \& \& \& \& <br>

\hline 2013 \& мво \& 1207 \& Dairinand Power cooperative \& us. \& 177,988 \& \multicolumn{3}{|l|}{$\underset{\substack{66,211 \\ 177,98}}{ }$} \& 186,959 \& \multicolumn{3}{|l|}{} \& (8,960) \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013 \& mpo \& 1210 \& Great fiver Energy \& us. \& 450,093 \& \multicolumn{3}{|l|}{${ }_{4550,093}^{177,98}$} \& 472,75 \& \multicolumn{3}{|l|}{} \& (22,657) \& \multirow[t]{2}{*}{$\xrightarrow{(22,557)}(1,088)$} \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013
2013 \& MRO \& 1222
1230 \& Minkota Power cooperatere, inc. \& U.s. \&  \& \multicolumn{3}{|l|}{ciat, 809
400,509} \& ${ }_{\substack{147,897 \\ 462,16}}$ \& \multicolumn{3}{|l|}{\multirow[t]{2}{*}{${ }^{462,716}$}} \& $(17,088)$
$(22,176)$ \& \& \& \& \& \& \& \& \& \& \& \& <br>

\hline ${ }_{2013}^{2013}$ \& MRO \& ${ }_{1232}^{1237}$ \& Omaha Public Power District \& u.s. \& 370,200 \& \multicolumn{3}{|l|}{${ }_{370,240}^{40,50}$} \& 388,878 \& \multicolumn{3}{|l|}{\multirow[t]{2}{*}{| 388878 |
| :--- |
| 236 |
| 8 |}} \& ${ }_{(12,688)}$ \& (18,683) \& \& \& \& \& \& \& \& \& \& \& <br>

\hline 2013

2013 \& Mro \& | 1237 |
| :--- |
| 1220 | \&  \& u.s. \& ${ }_{292256}^{225}$ \& \multicolumn{3}{|l|}{292236} \& (30647 \& \& \& \& ${ }^{(112)}$ \& \& \& \& \& \& \& \& \& \& \& \& <br>

\hline ${ }_{2013}$ \& MRo \& ${ }_{1239}^{1239}$ \& Wester Area Power Administation (LM) \& us. \& 4.102 \& ${ }_{4}^{4,102}$ \& \& \& ${ }_{4} 4,308$ \& ${ }_{4} 9,308$ \& \& - \& (206) \& $\xrightarrow{(14,711)}$ (206) \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013
2013 \& MRO \& ${ }_{1235}^{1217}$ \& Manitoaty C Saro \& ${ }_{\text {can }}^{\text {can }}$ \& 809,971
769279 \& : \& ${ }_{\substack{809971 \\ 769279}}$ \& : \& ${ }_{\substack{809,971 \\ 76,279}}$ \& : \& ${ }_{\substack{\text { cos, } \\ 76971}}$ \& : \& : \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013 \& м80 \& 1195 \& Alliant nergy (Alliant East- WPL L Alliant West PL) \& u.s. \& 937,860 \& 937,80 \& \& - \& 985,071 \& 985071 \& \& - \& (47,211) \& (47,211) \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013
2013 \& Mro \& 1216
1220 \& Madison, 6 as and lectric
Midamerican nerery Company \& us. \& ${ }_{\text {12, }}^{112.097}$ \& 112,097 \& \& $:$ \& ${ }_{\substack{\text { che } \\ 9657740}}$ \&  \& $:$ \& : \& ${ }_{\text {(15,633) }}^{(46286)}$ \& ${ }_{\substack{(5,643) \\(46,285)}}^{(5)}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013
2013 \& Mro \& ${ }_{1221}^{1220}$ \& Midamericia Enerigy Company \& U.S. \&  \& 919,7870 \& : \& \& 943,64 \& 943,64 \& \& : \&  \&  \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }_{2013}^{2013}$ \& Mro \& ${ }_{1231}^{1226}$ \& Montan: Oaketa Uulilies Co . \& us. \&  \&  \& : \& \& $\underset{\substack{\text { 105,762 } \\ 53,104}}{ }$ \& (10,762 \& \& \&  \& ${ }_{\text {c }}^{(15,069)}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013 \& MRo \& 1233 \& Ooter tai Power company \& us. \& ${ }_{1418334}$ \& ${ }_{189,34}$ \& - \& - \& ${ }_{155,802}$ \& ${ }_{\text {15, }}^{53,02}$ \& - \& - \& ${ }^{(1,4,47)}$ \& ${ }^{(17.467)}$ \& \& \& \& \& \& \& \& \& \& \& <br>

\hline ${ }_{2013}^{2013}$ \& Mro \& \& Wiscosis Public senice (WPs) \& us. \& | 38,255 |
| :--- |
| 2,6502 | \& 398,255 \& - \& : \& | 418,303 |
| :---: |
| 127911 | \& ${ }_{4}^{418,303}$ \& - \& - \& (20.048) \& \multirow[t]{2}{*}{${ }_{\substack{(20,048) \\(1,339)}}^{(2,26)}$} \& \& \& \& \& \& \& \& \& \& \& <br>

\hline ${ }_{2013}^{2013}$ \& ${ }_{\text {MRO }}^{\text {MRO }}$ \& 1244 \& Uper Penisul P Powe Company (uppCo) \& u.s. \& ${ }_{\text {1,455,617 }}^{\text {26, }}$ \& 2,459,6,617 \& \& : \& 27,53,9931 \& ( $\begin{array}{r}27,941 \\ 1,53,093\end{array}$ \& $:$ \& $:$ \& ${ }_{(12,476)}^{(1,399)}$ \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013
2013 \& MRO \& ${ }_{160}^{1196}$ \&  \& us. \& ${ }_{\substack{24,967 \\ 2.688}}$ \& 24,677 \& \& : \& ¢ 26.224 \& (2,24 \& $\because$ \& : \& ${ }_{\text {(1,25) }}^{(125)}$ \& $\underset{\substack{\text { (1,25) } \\(135)}}{ }$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }_{2013}^{2013}$ \& MRo \& ${ }_{11204}^{1076}$ \&  \& us. \& ${ }_{\text {2, }}^{13,083}$ \& (13,938 \& \& : \& $\underset{\substack{2,8,710}}{2,18}$ \& ${ }_{\text {13,710 }}^{2,223}$ \& : \& : \& ${ }_{\text {(557) }}$ \&  \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }_{2013}$ \& MRo \& 1200 \& Cedar Falls Municipal utilites \& us. \& 17,268 \& ${ }^{17,268}$ \& \& - \& ${ }^{18,138}$ \& ${ }^{18,138}$ \& - \& \& ${ }^{(869)}$ \& ${ }_{\substack{1859) \\(760)}}^{(180)}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }_{2013}^{2013}$ \& MRO \& ${ }_{1203}^{1477}$ \&  \& U.s. \& ${ }_{\substack{15,514 \\ 4,514}}^{183}$ \& ${ }_{\substack{15,096 \\ 4,514}}^{10,}$ \& \& : \& ${ }_{\substack{15,856 \\ 4,741}}^{18,}$ \& ${ }_{\substack{15,586 \\ 4,741}}^{1810}$ \& $:$ \& $:$ \& (127) \& (120) \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013
2013 \& Mro \& ${ }^{1205}$ \& Fals Sity Water 8 Lifht departent \& u.s. \&  \& 1,841
12,45
2, \& \& - \& 1,934 \& 1,934 \& - \& - \& (93) \& ${ }^{(123)}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }_{2013}^{2013}$ \& MRO \& 1206
1208 \& Fremont tepartment ofutulites
Geneseo Municipal utilies \& u.s. \& 14,155
$2_{2,50}$
2 \& [ \& : \& \& (14,868 \&  \& \& \& ${ }_{(1108)}^{(713)}$ \& ${ }_{(1713)}^{(1708)}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013 \& mpo \& 1209 \& Grand sland utitites Department \& U.s. \& ${ }^{24,576}$ \& ${ }_{24,576}$ \& - \& \& ${ }_{25}^{25,813}$ \& ${ }^{25,813}$ \& \& \& ${ }^{(1,237)}$ \& \multirow[t]{2}{*}{$\underset{(129)}{(1,23)}$} \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }_{2013}^{2013}$ \& MRO \& ${ }_{1211}^{1606}$ \& Haran M Mnicipal Utilites
Hasting Uutites \& u.s. \& (778 \& (1788 \& : \& : \& (14,817 \& (12,871 \& : \& : \& ${ }^{(1729)}$ \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013 \& Mro \& 1212 \& Heartand Consumers Powe District \& u.s. \& 27,517 \& ${ }^{27,517}$ \& - \& . \& 28,902 \& 28,902 \& - \& - \& (1,385) \& ${ }_{(1,1885)}^{(172)}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline ${ }_{2013}^{2013}$ \& ${ }_{\text {Mro }}^{\text {MRO }}$ \& ${ }_{1215}^{1213}$ \& Huth inso Uutilies Commission \& U.S. \& (10,973 \& 9,573
105929 \& \& : \& 9,845
1112,26 \& (9,45 \& : \& : \& ${ }_{(55,322)}^{(472)}$ \& ${ }_{(5,322)}^{(472)}$ \& \& \& \& \& \& \& \& \& \& \& <br>

\hline 2013 \& Mro \& 1218 \& Manitowo Public ulities \& us. \& ${ }_{1} 17,507$ \& 1 17,507 \& \& - \& ${ }_{18,39}$ \& ${ }_{18,39}$ \& - \& - \& ${ }_{\text {(881) }}$ \& \multirow[t]{2}{*}{$$
\begin{aligned}
& 1881) \\
& \hline
\end{aligned}
$$} \& \multicolumn{3}{|l|}{} \& \& \& \& \& \& \& \& <br>

\hline ${ }_{2013}^{2013}$ \& MRo \& ${ }_{1224}^{1223}$ \&  \& U.S. \& \% ${ }_{\text {79,985 }}^{49,54}$ \&  \& : \& : \&  \& ${ }_{\substack{83,466 \\ 51,34}}$ \& : \& : \& ${ }_{\text {c }}^{(4,0,47)}$ \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013 \& мво \& 1607 \& Montezuma Muncicipal Lght \& Power \& us. \& 1,039 \& 1,039 \& \& - \& 1,092 \& 1,992 \& - \& - \& (52) \&  \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013
2013 \& Mro \& ${ }_{1228}^{1227}$ \& Municipil Enegra A Aencry o N Nebraska

Muscatine Powerand Water \& us. \& | 38,63 |
| :--- |
| 28,258 | \&  \& \& : \& 339,79 \& 39,979 \& : \& : \& ${ }_{\substack{\text { (1, } \\(1,292)}}^{(1,26)}$ \& (152) \& \& \& \& \& \& \& \& \& \& \& <br>

\hline 2013 \& MRo \& 1229 \& Nebraska City Utilites \& u.s. \& ${ }_{\substack{\text { c,5s0 }}}^{2,888}$ \& ${ }_{\substack{\text { c,5s0 }}}^{22,288}$ \& \& - \& ${ }_{5,380}^{2,080}$ \& 5 5,830 \& - \& - \& (279) \&  \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013
2013 \& Mro \& 1234
1236 \&  \& us. \& ${ }^{955574}$ \& ${ }_{95}^{1757}$ \& : \& \& 183
100.881 \& 183
100,381 \& \& : \& ${ }^{(4811)}$ \& ${ }_{\substack{1279 \\(9)}}$ \& \multicolumn{3}{|l|}{\multirow[t]{2}{*}{}} \& \& \& \& \& \& \& \& <br>
\hline 2013 \& MRo \& 1241 \& Wilmar Municiopal vilities \& us. \& 8.504 \& 8.504 \& - \& \& \%,932 \& \% \& \& \& ${ }_{\text {(428) }}(1417)$ \& ${ }_{(0,511)}^{(4,88)}$ \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 2013 \& mво \& 1242 \& \multicolumn{2}{|l|}{\multirow[t]{2}{*}{TOTALMRO}} \& ${ }^{177,534}$ \& \multirow[t]{2}{*}{} \& \multicolumn{2}{|l|}{\multirow[t]{2}{*}{1,579,249}} \& \& \multirow[t]{2}{*}{} \& \multicolumn{2}{|l|}{\multirow[t]{2}{*}{1,599,29}} \& ${ }^{18.887)}$ \& \multicolumn{4}{|l|}{} \& \& \& \& \& \& \& \& <br>
\hline \& \& \& \& \& 9,426,019 \& \& \& \& 9,821,019 \& \& \& \& [395,000) \& (395,000) \& \& \& \& \& \& \& \& \& \& \& <br>

\hline ${ }_{2013} 2013$ \& Npect \& ${ }^{1336}$ \& New England \& us. \& | $3,869,386$ |
| :--- |
| 18950 | \& \multicolumn{3}{|l|}{$3.86,386$

4890350} \& ${ }^{1,1,55,172}$ \& \multirow[t]{2}{*}{} \& \& - \& ${ }^{(1288321)}$ \& ${ }_{\substack{\text { (128,321) } \\(162199)}}^{(1)}$ \&  \& ${ }_{2}^{2,822,535}$ \& - \& \& \& \& \& \& \& \& <br>
\hline ${ }_{2013}^{2013}$ \& Npect
Necc
dec \& ${ }_{133}^{1339}$ \& ${ }_{\text {Nowh York }}^{\text {Onaio }}$ \& ${ }_{\text {U }}^{\text {Unesad }}$ \& 4,893, 350
1,985888 \& \multicolumn{3}{|l|}{} \&  \& \& 1,256,602 \& . \& \multirow[t]{3}{*}{} \& \multirow[t]{2}{*}{(162,19)} \& ${ }^{\text {3,592,588 }}$ \& 3,922,588 \& 728,686 \& \& \& \& \& \& \& \& <br>
\hline 2013
2013 \& NPpCC \& ${ }_{1}^{1341}$ \& Quebec \& Canata \& 2,781,209 \& $\because$ \& 2,781,204
$\substack{29616}$ \& : \& 1,693,975 \& 1,459,971 \& 1,693,975 \& - \& \& \& (1087,269 \& \& \& \& \& \& \& \& \& \& <br>

\hline | 2013 |
| :--- |
| 2013 | \& Nece \& ${ }_{1338}^{1338}$ \& Now fonswick \& | canad |
| :---: |
| Canada | \& ${ }_{\text {24,3,34 }}^{294646}$ \& \& $\begin{array}{r}2943,034 \\ \hline\end{array}$ \& \& ${ }_{\text {19, }}^{196151}$ \& \& \multirow[t]{2}{*}{} \& : \& \& \& (1) \& \& 1313,864

13,273 \& \& \& \& \& \& \& \& <br>
\hline \& \& \& total ipic \& \& 14,06,8,878 \& /59,736 \& 5,309,142 \& \& 5,791,23 \& [15,143 \& \& \& 20,500 \& 200,500 \& 8,568, 15 \& 6,435,093 \& 2,133,052 \& \& \& \& \& \& \& \& <br>
\hline
\end{tabular}








# NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION 

2015 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 3

NORTHEAST POWER COORDINATING COUNCIL, INC.

PROPOSED 2015 BUSINESS PLAN AND BUDGET

# Northeast Power Coordinating Council, Inc. (NPCC) 

## 2015 Business Plan and Budget



> Approved by the
> NPCC Board of Directors
> at its June 26, 2014 meeting and Resubmitted to NERC June 27, 2014

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## Introduction

| Total NPCC Resources <br> (in whole dollars) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2015 Budget | U.S. | Canada | Mexico |
| Regional Entity Division FTEs | 36.86 |  |  |  |
| Criteria Services Division FTEs | 2.14 |  |  |  |
| Total FTEs | 39.0 |  |  |  |
| Regional Entity Division Expenses | \$14,758,558 |  |  |  |
| Criteria Services Division Expenses | \$1,139,452 |  |  |  |
| Total Expenses | \$15,898,011 |  |  |  |
| Regional Entity Division Inc(Dec) in Fixed Assets | \$19,981 |  |  |  |
| Criteria Services Division Inc(Dec) in Fixed Assets | $(\$ 10,011)$ |  |  |  |
| Total Inc(Dec) in Fixed Assets | \$9,970 |  |  |  |
| Regional Entity Division Working Capital Requirement** | (\$355,161) |  |  |  |
| Criteria Services Division Working Capital Requirement*** | $(\$ 94,220)$ |  |  |  |
| Total Working Capital Requirement | $(\$ 449,381)$ |  |  |  |
| Total Regional Entity Division Funding Requirement | \$14,423,378 |  |  |  |
| Total Criteria Services Division Funding Requirement | \$1,035,221 |  |  |  |
| Total Funding Requirement | \$15,458,599 |  |  |  |
| Regional Entity Division Assessments | \$14,068,878 | \$8,759,736 | \$5,309,142 |  |
| Regional Entity Division Assessments Percentage | 100.0\% | 62.3\% | 37.7\% |  |
| Criteria Services Division Membership Fees | \$1,035,221 | \$467,474 | \$567,747 |  |
| Total NPCC Assessments \& Membership Fees | \$15,104,099 | \$9,227,210 | \$5,876,889 |  |
| NEL | 648,607,000 | 292,891,000 | 355,716,000 |  |
| NEL \% | 100\% | 45.16\% | 54.84\% |  |

** Refer to Table B-1 on page 77 in Section B.
*** Refer to the Reserve Analysis on page 96 in Section C.

## 2015 Overview of Total NPCC Resource Requirements

Due to the international nature of NPCC, the total resource requirements including both Regional Entity division and Criteria Services division are identified above. The individual divisional explanations are contained in subsequent sections.

NPCC proposes to increase its total funding requirement from $\$ 14,818,588$ to $\$ 15,458,599$ in 2015, an increase of $\$ 640,011$ or $4.3 \%$. The proposed 2015 funding requirements will be satisfied by a Regional Entity division assessment of $\$ 14,068,878$ and Criteria Services division fees of $\$ 1,035,221$, an overall increase of $3.4 \%$ compared to the 2014 total assessments and fees of $\$ 14,601,588$. NPCC believes that the Region remains an effective provider of Regional Entity and Criteria Services division functions. NPCC's corporate culture centers on consistent delivery of excellent results at a cost that is considerate of the longstanding tradition in the Northeast of affordable and reliable electricity.

## Organizational Overview

Northeast Power Coordinating Council, Inc. (NPCC) is a 501(c)(6) not-for-profit corporation in the state of New York responsible for promoting and improving the reliability of the international, interconnected bulk power systems in Northeastern North America through (i) the development of Regional Reliability Standards and compliance assessment and enforcement of continent-wide and Regional Reliability Standards, coordination of system planning, design and operations, and assessment of reliability (collectively, Regional Entity activities), and (ii) the establishment of Regionally-specific criteria, and monitoring and enforcement of compliance
with such criteria (collectively, criteria services activities). NPCC provides the functions and services for Northeastern North America of a cross-border Regional Entity through a Regional Entity division, as well as Regionally-specific criteria services for Northeastern North America through a criteria services division. NPCC's website is www.npcc.org.

The NPCC Region covers nearly 1.2 million square miles and is populated by more than 56 million people. NPCC U.S. includes the six New England states and the state of New York. NPCC Canada includes the provinces of Ontario, Québec and the Maritime provinces of New Brunswick and Nova Scotia. In total, from a net energy for load perspective, NPCC is approximately $45 \%$ U.S. and 55\% Canadian. With regard to Canada, approximately $70 \%$ of Canadian net energy for load is within the NPCC Region.

Effective January 1, 2012, NPCC executed an Amended and Restated Regional Delegation Agreement with the North American Electric Reliability Corporation (NERC) that delegates to NPCC certain responsibilities and authorities of a cross-border Regional Entity as defined by Section 215 of the Federal Power Act in the U.S. In addition, NPCC has executed Memoranda of Understanding or Agreements with Canadian provincial regulatory and/or governmental authorities in Ontario, Québec, New Brunswick and Nova Scotia.

In this 2015 business plan, NPCC has included activities consistent with NERC initiatives including the implementation of the revised BES definition, risk-based registration, the Reliability Assurance Initiative, and expanded training for compliance auditing.

It is imperative that NPCC maintain its ability to carry out delegated authorities and responsibilities. NPCC has a flat 2015 targeted staffing level of 39 power industry professionals and support personnel. Details of the 2015 business plans and budget for each program area are included in Section A for the Regional Entity division. The 2015 Regional Entity division schedules are shown in Section B. Section C details the 2015 criteria services division business plan and budget.

## Membership and Governance

NPCC monitors approximately 300 registered entities and some 602 functions in the Region for compliance with mandatory Reliability Standards. NPCC currently has approximately 78 members. There are two categories of membership, General and Full. The two categories distinguish between Regional Entity delegated services that are provided in support of the U.S. FERC and Canadian provincial MOUs or Agreements with regulatory and/or governmental authorities, and Criteria Services which FERC references as U.S. non-delegated activities.

General Membership is voluntary and is open to any person or entity, including any entity participating in the Registered Ballot Body of the Electric Reliability Organization (ERO) that has an interest in the reliable operation of the Northeastern North American bulk power system. General Members which are also registered entities within the NPCC Region are subject to compliance with Reliability Standards, consistent with their registration, and also receive additional services from the Regional Entity division of NPCC.

Full Membership is available to Members which are already General Members and participate in electricity markets in the Northeast. Independent system operators (ISOs), Regional transmission organizations (RTOs), Transcos and other organizations or entities that perform the Balancing Authority function operating in Northeastern North America are expected to be Full Members of NPCC. The New York State Reliability Council and any other sub-regional
reliability councils which may be formed are also expected to be Full Members. Full Members are subject to compliance with Regionally-specific more stringent reliability criteria for their generation and transmission facilities on which faults or disturbances can have a significant adverse impact outside of the local area and which are identified utilizing a reliability impactbased methodology, in addition to Reliability Standards, and receive additional services from the Criteria Services division of NPCC, which is not funded through the ERO.

Since January 1, 2012 NPCC is governed by a Board of Directors consisting of seven stakeholder voting sectors consisting of a maximum of two directors per sector, an independent sector consisting of two independent directors, an independent Board Chair with voting rights to preclude board deadlocks, and the President and CEO. Within NPCC, no two sectors can control and no one sector can block action. The voting sectors on the NPCC Board of Directors include:

Sector 1) Transmission Owners
Sector 2) Reliability Coordinators
Sector 3) Transmission Dependent Utilities, Distribution Companies, Load Serving Entities
Sector 4) Generator Owners
Sector 5) Marketers, Brokers and Aggregators
Sector 6) Regulators
Sector 7) Sub-Regional Reliability Councils, Customers, other Regional Entities and Interested Entities
Sector 8) Independent
A Finance and Audit Committee (FAC), a Pension Committee (PC), a Corporate Governance and Nominating Committee (CGNC), and a Management Development and Compensation Committee (MDCC) advise the Board on finance, governance, compensation and human resource matters. The Board endorses a non-employee, Certified Public Accountant for election by the NPCC Members as Treasurer of the corporation. The Treasurer chairs the FAC and works with the Chief Operating Officer who provides oversight of the finances of the corporation. The Treasurer reports to the Board on the corporation's financial position, on FAC activities, on tax code requirements, and on independent annual audit results and accounting practices.

The Regional Standards Committee (RSC), the Compliance Committee (CC), the Reliability Coordinating Committee (RCC), and the Public Information Committee, consistent with their approved scopes, are responsible for various reliability issues. The RSC, CC and RCC also provide technical policy recommendations to the Board. All General and Full Members are eligible for representation on the technical committees.

Industry technical experts from within the membership provide valuable input to the Board through various working groups and task forces as well as the committees. The Amended and Restated Bylaws establishes NPCC's independence from users, owners and operators of the bulk power system through the enhanced governance structure while providing fair stakeholder representation in the election of the Board of Directors and officers. The members, from each of the seven stakeholder voting sectors, vote to elect directors in their respective sector. The Amended and Restated Bylaws establish criteria for board service for both stakeholder and independent directors. Independent Directors are drawn from diverse backgrounds and possess a broad range of industry expertise, perspectives, experiences, skill sets and knowledge to contribute to the effective functioning of a hybrid board structure.

Compliance and enforcement activities are carried out by the NPCC compliance staff and are independent of all users, owners and operators of the international bulk electric system. Compliance activities are governed in the United States by the Amended and Restated Regional Delegation Agreement between NERC and NPCC, delegating portions of NERC's authority as the ERO to NPCC. NPCC compliance activities in Canada are governed by an individual provincial Memorandum of Understanding (MOU) or Agreements with each province providing the unique parameters for compliance and enforcement activities for each of the provinces. A MOU between the Independent Electricity System Operator in Ontario (IESO), NERC and NPCC establishes roles and responsibilities with regard to that province. NPCC, NERC and the New Brunswick Energy and Utilities Board are parties to a MOU that sets forth reliability activities for New Brunswick. The Régie de l'énergie, NERC and NPCC executed an Agreement regarding the development of electric power transmission Reliability Standards and a program for the monitoring of the application of these standards for Québec. NPCC, NERC and Nova Scotia executed a MOU that sets forth the mutual understanding of the parties in relation to the approval and implementation of NERC Reliability Standards and NPCC Regional reliability criteria for the province of Nova Scotia.

## International Foundation

The Regional Entity functions and services differ according to particular regulatory backstop:
a) U.S. Foundation

The Federal Energy Regulatory Commission (FERC) certified NERC as the Electric Reliability Organization (ERO) on July 20, 2006. The ERO is responsible for developing and enforcing reliability standards within the United States. In executing part of its responsibilities, NERC delegates authority to the Regional Entities to perform certain functions through delegation agreements. Ensuring the reliability of the bulk power system in the state of New York and the six New England States was delegated from NERC to NPCC through the Amended and Restated Regional Delegation Agreement.
b) Ontario

On February 5, 2010, NERC, NPCC and the IESO amended and restated their earlier MOU, dated November 29, 2006, setting forth their mutual understanding as regards NERC's and NPCC's status in Ontario with respect to standard and criteria development, compliance enforcement, and other related matters. The IESO, whose statutory responsibilities include making and enforcing reliability standards, and making and enforcing Ontario market rules that govern the IESO-controlled grid and the wholesale electricity market, was established April 1, 1999 as the Independent Electricity Market Operator in Ontario under the Electricity Act, 1998 (Ontario). The IESO is subject to the regulatory oversight of the Ontario Energy Board (OEB).

Among other things, the MOU recognizes that NERC and NPCC are standards authorities under the Electricity Act, 1998 (Ontario). Additionally, under the authority of that same legislation, and as memorialized in the MOU, the NERC reliability standards and NPCC reliability criteria have effect in Ontario. However a 2008 amendment to the Electricity Act, 1998 (Ontario) allows the OEB to review these standards and criteria and issue orders preventing their implementation and remanding them back to NERC and NPCC.

The IESO is subject to compliance monitoring and enforcement by NPCC. The IESO is also subject to compliance monitoring and enforcement of the Ontario market rules by the IESO's Market Assessment and Compliance Division (MACD) that operates at arm's length from the IESO's business units. The MOU notes that where MACD, NERC, and NPCC engage in
investigations pursuant to their respective mandates regarding compliance, MACD can request to take the lead. Moreover, of the three, MACD is the only entity that can assess financial penalties for any Ontario market participant's or the IESO's non-compliance with Ontario market rules, which includes non-compliance with NERC standards and NPCC criteria.

The MOU provides for a peer review process to promote the common compliance and enforcement objectives of NERC/NPCC and MACD. From the perspective of NPCC and NERC, this process, in part, is meant to assure registered entities outside of Ontario that the MACD program is rigorous, thorough and reliable.

The IESO is subject to NPCC assessments of compliance, including audits, as well as NPCC remedial action directives to correct non-compliance. In the event that the IESO disagrees with NPCC's finding of a violation or associated assessment of sanctions in connection with standards and criteria, the IESO has a right to a compliance hearing with NPCC.
c) Québec

The Régie de l'énergie, NERC and NPCC are parties to the May 8, 2009 Agreement on the Development of Electric Power Transmission Reliability Standards and of Procedures and a Program for the Monitoring of the Application of These Standards for Québec (the Agreement). Under the terms of the Agreement, the Régie de l'énergie , which is charged with ensuring the reliability of the electric transmission in Québec, retained NPCC and NERC as experts to develop reliability standards and monitoring program procedures for the Province.

The Régie de l'énergie is a public body established by the Act respecting the Régie de l'énergie (the Act). Pursuant to its authority under the Act, the Régie de l'énergie, through a series of decisions in 2007, designated Hydro-Québec TransÉnergie (HQTE) as the Reliability Coordinator for Québec. In accordance with its mandate and as recognized in the Agreement, it is this entity that is responsible for the filing with the Régie de l'énergie for approval of reliability standards in Québec. HQTE has filed for the approval of certain reliability standards and the Régie de l'énergie has begun the proceedings required to make such reliability standards mandatory in Québec.

The Agreement contemplates the execution of a second agreement that will detail the mandates granted by the Régie de l'énergie to NPCC and NERC with respect to the implementation of the procedures and program for the monitoring of the application of electric power transmission Reliability Standards in Québec and the provision of opinions and recommendations to the Régie in this regard. The second agreement is currently being negotiated by the Régie de l'énergie, NPCC and NERC. The intent, once all the appropriate authorizations are in place, is that NPCC and NERC will act as the Régie's agents in all compliance monitoring and enforcement activities through the implementation of a Québec specific compliance monitoring and enforcement program.

Currently, as there are only a limited number of mandatory standards that have come into effect, and as the second agreement and all the appropriate authorizations covering compliance monitoring and enforcement arrangements are not in place, there has been limited mandatory compliance activity under the formal Québec regime. However, the Hydro-Québec companies, including Hydro-Québec TransÉnergie and Hydro-Québec Production have been subject to voluntarily compliance monitoring, including comprehensive audits by NPCC. Additionally, NPCC has and continues to proceed with its reliability assurance activities within Québec,
including but not limited to events analysis, Reliability Assessment and Performance Analysis and compliance investigations, consistent with the NPCC Amended and Restated Bylaws.
d) New Brunswick

The New Brunswick Energy and Utilities Board ("EUB") and NPCC entered into an Agreement dated October 1, 2013, whereby NPCC provides services for the EUB. The EUB is a not-forprofit corporation which was established on October 1, 2004 under the Electricity Act (NB) and charged with developing and administering the wholesale electricity market and maintaining reliability of the integrated power system in New Brunswick.

Effective October 1, 2013, the Electricity Act (NB) and implementing regulations (together, "NB Electricity Act") amended how Reliability Standards are approved, monitored, and enforced in the province of New Brunswick. The NB Electricity Act designates NPCC as a compliance body and NERC as a standards body within the meaning of the NB Electricity Act. The October 1, 2013 Agreement between NPCC and the EUB is intended to be the preliminary step with respect to the implementation of the NB Electricity Act.

With respect to the approval of reliability standards, the NB Electricity Act provides that all of the NERC Reliability Standards that were effective in New Brunswick prior to October 1, 2013 continue to be effective in New Brunswick after October 1, 2013. Additionally, the New Brunswick Power Corporation (formed from several amalgamating corporations) ("NBPC") is required to file for approval, modification, or retirement of NERC Reliability Standards 60 days after a NERC Reliability Standard is approved, modified, or retired by the Federal Energy Regulatory Commission ("FERC"). The EUB rules on the filed Reliability Standard after considering (a) the potential impact on the reliability of the bulk power system, (b) the potential cost and benefits (c) the public interest, and (d) any other factors that the NBUEB considers relevant. The Electricity Act requires the NBEUB to notify NPCC and NERC of an application by the NBPC with respect to reliability standards and provide for a 60 day comment period. The NBEUB is required to approve the reliability standards if there are not substantive modifications proposed from the FERC approved NERC Reliability Standard and there were no substantive comments filed. Amendments to the reliability standard to make them compatible with New Brunswick or Canadian law are considered non-substantive. The approval of reliability standards may be subject to a hearing for several reasons, including substantive comments from NPCC or NERC.

With respect to the monitoring and enforcement of the Reliability Standards in New Brunswick, the NB Electricity Act requires NPCC to identify entities that must register with the EUB in the New Brunswick specific registry. Additionally, NPCC is required to carry out the compliance monitoring and assessment for the EUB and assist and advise the enforcement for the EUB, including financial penalties. NPCC is also permitted to carry out or exercise any power in the implementing regulations that is specific to the EUB. Additionally, NPCC has the powers of an inspector, which permits NPCC to audit and spot check entities within New Brunswick.
e) Nova Scotia

Nova Scotia Power Incorporated (NSPI), NPCC and NERC are parties to a May 11, 2010 Memorandum of Understanding regarding the approval and implementation of mandatory NERC reliability standards and NPCC Regional reliability criteria. Pursuant to the MOU's terms, NERC and NPCC filed standards and criteria with the Nova Scotia Utility and Review Board (NSUARB) for approval on June 30, 2010 and June 29, 2010, respectively. A decision from the NSUARB on both NERC and NPCC filings was rendered on July 20, 2011. Hence, the
standards and criteria are mandatory in Nova Scotia and NSPI will be subject to the NERC compliance monitoring and enforcement program, as implemented by NPCC.

NPCC will conduct compliance activities with respect to the standards and then forward any non-compliance information and recommendations to the NSUARB for use in enforcement proceedings. Enforcement will be administered by the NSUARB which will, among other things, determine whether a violation has occurred and, if so, what remedial measures or nonmonetary penalties should be imposed.

## Regional Entity Division Functional Scope

NPCC's Regional Entity division functions in support of the ERO include:

- Active participation in the development of North American Reliability Standards for the bulk electric system, and as needed development of Reliability Standards applicable within the NPCC cross-border Regional Entity
- Monitoring and enforcement of approved Reliability Standards, including the registration of responsible entities, and as needed certification of such entities
- Assessment of the present and future reliability of the bulk power system
- Operational coordination and situation awareness support
- Event analysis and identifying lessons learned to improve reliability
- Effective training and education of reliability personnel
- Promoting the protection of critical electric infrastructure

In recognition of the delegated compliance role of Regional Entities as an important means to enhancing reliability, NPCC has designated a significant percentage of its staff resources to compliance monitoring and enforcement. NPCC has also developed and deployed a robust set of online tools for gathering data, analysis, and tracking of compliance information to support its ability to carry out its responsibilities in a cost effective manner.

NPCC has organized the remaining staff into program areas consistent with EPAct 2005 to address the other functions listed above. These experts in operations, planning and reliability analysis assist registered entities in assessing and improving reliability. It is in support of these areas that NPCC engages the majority of industry experts on its technical committees.

## 2015 Key Assumptions and 2015 Goals and Key Deliverables

NERC and the eight Regional Entities collaborated in the development of a common operating model with complementary roles and responsibilities, an ERO Enterprise Strategic Plan, and a set of business planning assumptions, goals, metrics and key deliverables for the 2014 through 2017 period. The results from that collaboration are included as a set of Shared Business Plan and Budget Assumptions that will be contained in Exhibit A to the NERC 2015 Business Plan and Budget and may be referenced by the users of this document. In each of the following program area sections footnotes are used to reference the specific ERO Enterprise Goals that NPCC's activities support.

## 2015 Overview of Regional Entity Division Cost Impacts

NPCC proposes to increase its Regional Entity division funding requirement from \$13,828,880 to $\$ 14,423,378$ in 2015 , an increase of $\$ 594,498$ or $4.3 \%$. The proposed Regional Entity division assessment of $\$ 14,068,878$ to support the budget is an increase of $3.4 \%$ compared to the 2014 assessment of $\$ 13,611,880$.

## 2014 Projections

Current year projections are taken into consideration in development of the budget. Expenses are currently projected to be on budget or slightly under budget in all areas. 2014 Projections reflect expectations based on the first quarter statement of activities. It is anticipated that projections could change throughout 2014 and would be reflected in each subsequent quarter's statement of activities.

## Summary by Program

| Program |  | $\begin{gathered} \text { Budget } \\ 2014 \end{gathered}$ |  | $\begin{gathered} \text { Projection } \\ 2014 \end{gathered}$ |  | $\begin{gathered} \text { Budget } \\ 2015 \end{gathered}$ | Variance 2015 Budget v 2014 Budget |  | Variance \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reliability Standards | \$ | 1,447,330 | \$ | 1,447,330 | \$ | 1,456,129 | \$ | 8,799 | 0.6\% |
| Compliance Monitoring and Enforcement and Organization Registration and Certification | \$ | 8,079,371 | \$ | 8,079,371 | \$ | 8,568,145 | \$ | 488,774 | 6.0\% |
| Reliability Assessments and Performance Analysis | \$ | 2,942,339 | \$ | 2,942,339 | \$ | 3,053,923 | \$ | 111,585 | 3.8\% |
| Training, Education and Operator Certification | \$ | 195,855 | \$ | 195,855 | \$ | 199,010 | \$ | 3,154 | 1.6\% |
| Situation Awareness and Infrastructure Security | \$ | 1,464,111 | \$ | 1,464,111 | \$ | 1,501,332 | \$ | 37,221 | 2.5\% |
| Total | \$ | 14,129,006 | \$ | 14,129,006 | \$ | 14,778,539 | \$ | 649,533 | 4.6\% |

This chart does not include allocation of working capital requirements among the Program Areas.


This chart does not include allocation of working capital requirements among the Program Areas.

| Personnel Analysis |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total FTE's by Program Area | Budget 2014 | $\begin{aligned} & \text { Projection } \\ & 2014 \end{aligned}$ | Direct FTEs 2015 Budget | Shared FTEs ${ }^{1}$ 2015 Budget | Total FTEs 2015 Budget | Change from 2014 Budget |
| REGIONAL ENTITY DIVISION |  |  |  |  |  |  |
| Operational Programs |  |  |  |  |  |  |
| Reliability Standards | 2.93 | 2.93 | 2.00 | 0.93 | 2.93 | 0.00 |
| Compliance Monitoring and Enforcement and Organization Registration and Certification | 16.00 | 16.00 | 16.00 | 0.00 | 16.00 | 0.00 |
| Training, Education, and Operator Certification | 0.10 | 0.10 | 0.10 | 0.00 | 0.10 | 0.00 |
| Reliability Assessment and Performance Analys is | 5.83 | 5.83 | 4.90 | 0.93 | 5.83 | 0.00 |
| Situation Awareness and Infrastructure Security | 3.00 | 3.00 | 3.00 | 0.00 | 3.00 | 0.00 |
| Total FTEs Operational Programs | 27.86 | 27.86 | 26.00 | 1.86 | 27.86 | 0.00 |
| Administrative Programs |  |  |  |  |  |  |
| Technical Committees and Member Forums | 0.50 | 0.50 | 0.50 | 0.00 | 0.50 | 0.00 |
| General and Administrative | 2.50 | 2.50 | 2.50 | 0.00 | 2.50 | 0.00 |
| Information Technology | 3.00 | 3.00 | 3.00 | 0.00 | 3.00 | 0.00 |
| Legal and Regulatory | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 |
| Human Resources | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 |
| Accounting and Finance | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 |
| Total FTEs Administrative Programs | 9.00 | 9.00 | 9.00 | 0.00 | 9.00 | 0.00 |
| Total FTEs | 36.86 | 36.86 | 35.00 | 1.86 | 36.86 | 0.00 |

${ }^{1}$ A shared FTE is defined as an employee who performs both Regional Entity and Criteria Services division functions.

## 2014 Budget and Projection and 2015 Budget Comparisons



## Section A - Regional Entity Division 2015 Business Plan and Budget



## Section A - 2015 Business Plan

## Reliability Standards Program

| Reliability Standards Program Resources <br> (in whole dollars) |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 2014 Budget | 2015 Budget | Increase <br> (Decrease) |
| Total FTEs | 2.93 | 2.93 | 0.00 |
| Direct Expenses | \$917,936 | \$905,638 | (\$12,299) |
| Indirect Expenses | \$555,686 | \$561,221 | \$5,535 |
| Other Non-Operating Expenses | \$0 | \$0 | \$0 |
| Inc(Dec) in Fixed Assets | $(\$ 26,292)$ | (\$10,729) | \$15,563 |
| Total Funding Requirement | \$1,447,330 | \$1,456,129 | \$8,799 |

## Program Scope and Functional Description

The NPCC Reliability Standards program operates in accordance with NPCC's filed and approved Delegation Agreement "Exhibit C", and NERC Rules of Procedure Section 300. The program supports the ERO standards program area roles and responsibilities by providing supporting activities for the development of clear, concise, sustainable, high quality and technically sound mandatory "results based" reliability standards which provide for an adequate level of reliability in a timely and efficient manner. The primary objective of NPCC’s program area is to support the development of ERO standards which establish threshold requirements for ensuring the bulk electric system is planned, operated, and maintained in a manner that minimizes risks of cascading failures, avoids damage to major equipment, is responsive to risks, or limits interruptions of bulk power supply. At a Regional level, the program develops Regional Reliability Standards and ensures that Regional reliability criteria, contained in the form of Directories, are not inconsistent with any applicable NERC and Regional Reliability Standards. The NPCC Reliability Standards program also supports and participates in the development, revision, and maintenance of NERC Reliability Standards, initiates new regional or continent wide reliability standards when necessary, and provides a forum for the comprehensive review and improvement of existing and developing standards.

The NPCC Reliability Standards Program Area supports the reliability of the bulk electric system by:

- Facilitating active participation of NPCC Regional industry stakeholders in all NERC Reliability Standards activities to promote the development of results based, cost effective quality standards in a timely and efficient manner.
- Promote awareness by holding workshops and conducting Regional Standards Committee meetings to inform and educate stakeholders.
- Internally and informally training staff for the new and developing standards through meetings.
- Regional coordination activities with Standards Program Areas from other Regions.
- Development and maintenance of Regional Standards as necessary to address Regional reliability related issues or risks and ensure those standards are not inconsistent with the NERC continent wide standards. These Regional standards contain requirements that are more stringent, add specificity to or augment the NERC Continent-wide standards.
- NPCC maintains and abides by the NPCC Regional Standards Processes Manual assuring compliance with all FERC filed documents with respect to standards development.


## Funding Drivers and Reliability Benefits

- Expanded Scope of Standards activities
o Utilize NPCC RSC, Task Forces and Working Groups to comment on developing NERC Standards to ensure they are results based and directionally consistent with the Independent Experts Review Panel Report (IERP) ${ }^{1}$
o Develop process for ensuring lessons learned from Event Analysis are evaluated for any gaps in standards or criteria ${ }^{2}$
o Responding to increasing amount of FERC Rulings, NOPRs, preliminary staff assessments, and FERC issued Directives ${ }^{3}$
o Providing support for increased standard development activities as outlined in the NERC 2014-2016 Reliability Standards Development Plan and assuming an active role in the newly formed NERC Project Management Oversight Subcommittee ("PMOS")
o Participating in informal activities of standards development to promote consensus early in project development and provide technical guidance
o Providing a forum for all NPCC representatives on the NERC drafting teams
o Actively coordinating and reviewing Reliability Standards Audit Worksheets (RSAW) for correctness
o Provide NPCC Regional point of contact for the new Reliability Issues Steering Committee ("RISC") to provide emerging and existing BES reliability related risks and potential gaps in the existing NERC standards
- Increased Number of Standards Projects
o Active NERC Projects in the standards area are also expected to increase to achieve the ERO goal of reaching "steady state" for standards.
o The concept of informal development was introduced in 2013 and will be expanded to include more standards development projects in 2015 requiring more technical support, participation, and facilitation from NPCC staff to address industry resources shortfalls.
o NERC has developed procedures and processes to allow it to revise standards in a more expeditious manner that may need clarification or address some deficiency.
o NPCC is assisting with the Project Management Oversight Subcommittee (PMOS) which is responsible for managing the development of NERC standards projects and tracking Paragraph 81 Phase 2 retirement candidates

[^32]o Promote and assist with the development of the "second generation" of the Cost Effective Analysis Process ("CEAP") to provide NERC with a tool which will help ensure standards have the most cost effective requirements which meet the reliability objectives of standards under development ${ }^{4}$

- Further resources required to evaluate the standards from a "cost benefit" and also a "cost effectiveness" perspective will be required.
- NERC Reliability Standards will continue to require Violation Risk Factors (VRFs) to be developed and NERC is reviewing additional levels of VRF and development of a Sanction Matrix which is envisioned to replace the Violation Severity Levels (VSLs).
- Reliability Standards Audit Worksheets (RSAWs) are now being posted with draft standards during the development process for industry review and comment. These RSAWs must be evaluated for accuracy from a technical basis.
- Expanded efforts to educate and inform stakeholders in the areas of NERC and NPCC Regional Standards through NPCC Workshops and with anticipated additional forums such as increases in the amount of Internet based meetings and technical conferences. ${ }^{5}$


## 2015 Key Assumptions

- Facilitate stakeholder review, comment on, and develop ballot recommendations or list of Regional issues, for all NERC Reliability Standards Projects under informal or formal development or revision prior to the end of ballots
o NERC and NPCC benefit from NPCC's Regional coordination consisting of a broad stakeholder review process and development of consensus recommendations to assure proposed standards will support international reliability and provide appropriate reliability objectives for the Continent-wide standards
o Coordinate a comprehensive review of the results based standards initiative processes and standards being implemented
o Conduct and obtain training for performing Quality Reviews of standards at both the Regional level and to assist the ERO with analysis of the continent wide standards
o Coordinate the review of all Reliability Standards Audit Worksheets during their postings for comment for potential expansion of their associated standard's requirements
o Refine the NPCC triage process to assess posted standards and related material to ensure it is properly routed to and addressed by the appropriate NPCC technical or process resources.
- Participate in the stakeholder efforts to develop Standards Authorization Requests (SARs) and Regional SARs to further improve standards in response to any potential inadequacies in reliability or to improve standards
- Monitor and participate in the drafting of key NERC Reliability Standards-CIP, Protections Systems, Balancing Control Performance, and Frequency Response, etc.

[^33]o The NPCC monitoring of the development of standards helps to ensure reliability requirements that are clear, measureable, and enforceable and support international reliability in the Northeast

- Continue with the development and maintenance of a set of NPCC Phase II Directories not inconsistent with the NERC Reliability Standards which clearly delineate the more stringent NPCC criteria requirements
o The combination of North American and Regional Reliability Standards with the more-stringent NPCC Regional criteria provides for consistency and operational clarity while providing robust defense in-depth, results based, standards to ensure BES reliability
o Ensure no redundancies exist between the criteria found in the NPCC Directories and the ERO standards
o Retire Directories that have been overtaken by improved NERC standards
o Continually file the more stringent requirements with the New York State Department of Public Service and Canadian Provinces as applicable
- Review reliability requirements of ERO and NPCC Regional Standards, NPCC Criteria and ensure consistency, remove redundancies, adopt Functional Model language and ensure requirements are "results based"
o The unambiguous assignment of reliability requirements to specific functional entities benefits international reliability
o Participate in the continuing refinement of the Functional Model to capture evolving issues essential to reliability and new objectives in the industry, i.e. demand resource operator, planning functions, new activities yet to be identified such as those associated with Smart Grid, "Synchro-Phasor" technology, etc.
o Participate in the continual improvement of the NERC standards development processes and initiatives such as the CEAP, PMOS and Single Portal Project.
o Contribute to the improvement of process related to NERC providing interpretations.
- Review all FERC orders and Provincial regulations as they relate to the standards, their revision and adoption
o Northeast reliability benefits from careful analyses of governmental orders or actions adopting standards to assure consistency in interpretation
o Review rulings that are issued and all FERC Directives for potential reliability related issues
o Conduct and support Regulatory/Governmental Provincial filings on a periodic basis based on individual Provincial Laws and requirements outlined in the Memorandum of Understandings for each Province.
- Enhance NPCC standards website pages to provide uniform and clear information to the stakeholders while also providing the historical and archived information to support NERC and FERC approvals and expanding requirements


## 2015 Goals and Key Deliverables

The Reliability Standards program goals and objectives for 2015 are grouped into seven categories:

1) Participate in the ERO Results-Based Standards Development

- Participate in the development and revision of the NERC three year work plan through review, commenting and drafting activities
- Participate in the Standards Committee Strategic initiatives to develop results based standards that will provide a defense in depth, complete the standards due for 5 year review, and address all existing and outstanding FERC Directives.
- Support the implementation of the NERC Board of Trustees ("BOT") resolutions specifically supporting the timeliness, cost effectiveness, timely development, and quality of new standards
- Coordinate the development of ERO Reliability Standards within NERC's three-year standards work plan with the emphasis placed on reducing the amount of new FERC Directives issues by closer coordination with the Commission staff
- Conduct thorough reviews of all NERC standards being developed or revised and coordinate comments for Northeastern North America driving consensus to the extent possible
- Facilitate and enhance the NERC Cost Effective Analysis Procedure both within NPCC throughout the industry
- Conduct thorough reviews of all Industry requested NERC Formal Interpretations of standards and develop and promote the NERC Informal Guidance Process, a comprehensive process to deal with all standards related questions, e.g. Single Portal
- NPCC staff along with NPCC solicited Regional drafting team volunteers, will participate in the drafting of all ERO standards affecting or potentially affecting reliability in the Eastern Interconnection and provide support for review and development of comments and propose improvements with specific emphasis on CIP
- NPCC and its members will review and coordinate potential comment on FERC preliminary staff assessments as appropriate
- Participate in ballots for ERO standards and provide consensus recommendations to the NPCC Members of the NERC Registered Ballot Body or provide a list of issues to allow the Members to cast a ballot based on Regional concerns prior to the end of the ballots
- Review and develop issues on FERC Notice of Proposed Rulemakings for any and all standards related issues as appropriate
- Coordinate and evaluate proposed standards utilizing NPCC’s Regional technical task forces, working groups and committees
- Educate and notify stakeholders and regulators about issues related to standards development through various means such as webinars and workshops
- Provide outreach to industry trade groups to educate and drive consensus such as the North American Generator Forum and North American Transmission Forum
- Provide a forum for NPCC review of proposed and posted documents from the NERC Critical Infrastructure Protection Committee (CIPC) and NPCC Task Force on Infrastructure Security and Technology (TFIST)
- Provide support to NERC's strategy in the prioritization, identification, scheduling and development of NERC directed Regional Reliability Standards
- Participate in NERC's Standards Committee standards prioritization process, to identify immediate standards needs and prioritization based on need
- Participate in the NERC RISC by providing a Regional point of contact for all potential reliability related risks and gaps within the Northeast or as noted by NPCC stakeholders
- Participate in and provide support to critical standards, such as UVLS, Voltage and Reactive Control, Real Time Tools, Frequency Response, etc.
- Identify and initiate Regional Variances to the NERC Reliability Standards as soon as possible, allowing incorporation into the continent wide standard at its inception
- Identify potential drivers for standards revisions based on revisions to the BES to a bright line criteria and any document revisions required as a result of consideration of the "Exception Process".
- Support additional standards workload from further economic stimulus, i.e. standards on integrating variable generation resources or EHV backbone, Smart Grid, Electric Vehicles or "Synchro-Phasor" projects as necessary
- Provide continued input and leadership to NERC, based on NPCC experiences, regarding strategy for developing cost effectiveness analysis for standards and support activities to enhance this to identify "benefits" for the draft standards.
- Provide support and assistance to the ERO for conducting Quality Review activities on NERC continent-wide standards as possible
- Continually file the NPCC Directories with the Canadian Provincial Regulatory Authorities within the NPCC "footprint", on an as needed basis, as the directories are developed and revised and as the Provinces establish procedures and agreements with NPCC.
- Continue to develop new and innovative processes to better utilize the limited internal and external resources in the Region to enable sufficient technical review of posted standards and related materials
- Support the ERO and the relationships with FERC and the provincial governmental authorities for standards development activities as necessary to accomplish the ERO goals and objectives
- Support the development of system protection and control, communication, transmission operation standards and other critical standards efforts.

2) Regional Standards Development

- NPCC does not anticipate developing further Regional Standards but reserves the right to do so if a reliability issue exists that is not appropriate for Continent-wide development and also will perform clarifications as needed to existing approved Regional Standards.
- Draft any additional standard NERC directs NPCC to develop to meet an urgent reliability related needs, i.e. Geomagnetic disturbance system hardening
- Accomplish all directives of ERO and governmental and/or regulatory authorities with regard to Regional Standards development and procedures
- Adhere to and surpass, where practical, the 2014-2016 NERC Work plan milestones as they pertain to targets for the Regional Standards
- Respond to any FERC Directives that may arise as a result of the filing of NPCC's Regional Standards with the FERC or any Provincial "directives" that may be issued by the Canadian Regulatory Authorities

3) Standards Improvement

- Achieve NPCC reliability goals and objectives by initiating, participating in, and efficiently completing standards related activities
- Leverage internet and web based tools functionality to ensure inter-Regional consistency and quality of Regional Reliability Standards
- Establish long-term strategy for standards improvement and initiate implementation
- Continually identify additional future Regional Standard opportunities if Continent-wide standards are not an appropriate solution
- Ensure the topics addressed by the Reliability Standards parallel changing industry needs
- Participate in reliability metrics activities to identify potential measures for benchmarking of reliability to determine if an adequate level of reliability is being achieved
- Support and develop cost-benefit analysis activities to determine if any potential incremental increases in costs of implementing a standard have sufficient enough reliability benefit to implement that standard

4) Coordination of review of RSAWs

- Develop a process to review the RSAWs consisting of subject matter experts to determine if the RSAWs are technically representative of the standard's requirements and also to review the evidence suggested in the RSAW for satisfactory compliance assessment
- The Regional Standards Committee ("RSC") will oversee and provide the results of the coordination to the appropriate NERC SDT charged with development of the RSAW

5) Business Practices Interface

- Coordinate the review of standards through NPCC RSC, staff, and other members participating in activities of the North American Electric Standards Review Board (NAESB)
- Identify potential market related issues for Regional Standards through NPCC RSC coordination and reviews

6) Opportunities for Process Improvement

- Identify efficiencies for a coordinated NERC standards development process and NPCC Regional Standards Development Procedure and recommend revisions as applicable to either process
- Refine the NERC and NPCC CEAP s to evaluate the costs and effectiveness of proposed new and revised reliability standards to achieve an adequate level of reliability and a steady state set of standards
- Participate in any potential revision and redrafting of the NERC Standards Development Process to consider expedited standards development and cost effectiveness analysis and maintaining the ANSI Accreditation for standards development
- Participate in the enhancement of the Single Portal on the NERC website to provide one stop shopping for stakeholders seeking answers to questions.
- Identify potential future processes to obtain expedited interpretations
- Identify expedited processes for adjusting NERC glossary terms
- Identify refinements for credentialing standard drafting team members to ensure the correct subject matter experts are developing the standards at both the Regional level and the ERO level.
- Establish targets for NERC and NPCC standards procedure improvement and support initiation of implementation of the strategy
- Streamline and improve the Regional Standards program tools and IT based solutions
- Refine the records retention programs to ensure sufficient documentation exists for regulatory approvals
- Develop document management systems to allow the efficient and effective revisions of documents, control of authorship and security of documents
- Identify improvements in process for feedback loops to ensure that event analysis and investigation lessons learned and compliance issues involving violations are fed into the
standards program area, as appropriate for review and potential consideration when revising standards
- Support the creation of an ERO standards database, available to industry and online, to identify and review issues related to all approved and developing standards
- Participate in the Functional Model Working Group activities to refine functions, tasks and responsibilities of applicable entities
- Solicit and provide outreach to FERC in the Regional Standards Development Processes


## 7) Communications

- Improve automated notifications process to assure awareness of dates and proceedings of all standard development activities
- Strengthen the relationship with the industry's technical committees to ensure adequate input to standards development, such as the North American Generator Forum.
- Participate in NPCC and NERC workshops as necessary, to promote awareness and educate the industry
- Develop and institute a consensus building and notification process(es) for engaging stakeholders and providing immediate notification for the need to review standards. Provide the associated coordination for this review utilizing subject matter experts, both internal and external to the Regional Entity staff
- Promote the reliability objectives of the NERC standards as appropriate to the NPCC members of the NERC Registered Ballot Body in order to achieve consensus and support of beneficial standards and to promote the "One-Enterprise" model.

Technically excellent, results based standards that enhance reliability and are developed in a timely and efficient fashion, require the full participation of the right industry experts from all Regional Entities when developing Reliability Standards. The NPCC RSC promotes the drafting team process and solicits drafting team members from appropriate NPCC technical bodies and others in the industry and adjoining Regional Entities. In addition the NPCC RSC works with the individual NERC standards developers to participate in Regional outreach and coordination of issues at each NPCC RSC meeting.

NPCC RSC will also assist in providing notifications and announcements to NPCC participants in the Northeastern North America NERC Registered Ballot Body of important applicable deadlines for ballot pool registration and for casting ballots thereby enhancing participation, promulgation of important information and increasing awareness. In the fourth quarter of 2014 NERC will "roll out" a new Standards Balloting System (SBS). This new system will require training and an implementation communication plan. NERC will develop the training and NPCC will assist in providing it throughout the Northeast. The SBS will require all users to reregister to cast ballots as well as submit comments. This support will enhance efficiency of the NERC procedure and help to ensure the necessary quorums are present at ballot and help to clean up the registered ballot body list. NPCC will also, when practical, promote important standards and the requirements of those standards through various communications.

NPCC will also participate in the development and revision of standards as directed by FERC, Canadian provincial and other regulatory and/or governmental authorities. FERC to date has identified numerous NERC Reliability Standards needing further work and has issued numerous Directives appearing in FERC Orders. In 2013 FERC also issued remanded interpretations and standards which require NERC to address commissions concerns as outlined in the associated Orders. These remands have created a need for NERC to review existing processes and
determine approaches going forward. NPCC will support these efforts and will lead the review and potential revision of the NERC Interpretation process. These standards needing revision are delineated in the 2014 - 2016 NERC Reliability Standards Development Plan, and will be ready to be reviewed and revised throughout 2015.
NPCC will provide support and coordination of NERC standards development activities as outlined in the 2014-2016 Reliability Standards Development Plan and the Standards Committee and ERO strategic goals and initiatives.

## Regional Standards Development

The NPCC currently has two FERC approved Regional standards, Disturbance Monitoring and Underfrequency Load Shedding. NPCC has undertaken the review of the Disturbance Monitoring standard for adequacy from the perspective of a "bright line" BES definition and currently developing PRC-002-2 Disturbance Monitoring continent wide standard. This review of the standard and proposed revision to the standard will be performed in the 2014-2015 timeframe. In addition there are two other Regional standards that NPCC may review to determine if they should move forward into active formal development. These Regional Standards will include, but not be restricted to the following:

- Special Protection Systems (SPS) scheduled to begin development in 2014 Balancing Authority Controls (BA - Reserve Sharing)
Whether NPCC pursues these Regional standard will depend in large part to how comprehensive their associated continent-wide standards are. NPCC will review the continent wide standards as they are develop, participating in those activities and providing supporting subject matter expertise as it is available.

Based on the portion of professional/technical staff time and other resources devoted to Reliability Standards development, NPCC estimates that it will expend approximately 10 percent of its resources on this activity.

## Funding Sources and Requirements - Explanation of Increase (Decrease)

## Funding Sources (Other than ERO Assessments)

- U.S. Penalty Sanctions remitted from 7/1/13 through 6/30/14 reduce U.S. LSE designee assessments for 2015.


## Personnel Expenses

- NPCC anticipates no need to hire additional personnel in this program area in 2015.
- Salaries expense reflects implementation of recommendations of NPCC’s Management Development and Compensation Committee, which were based on an independent compensation study.
- Benefits expense decreased due to more staff opting out of company sponsored health insurance for superior coverage through prior employer or spouse.
- Retirement expense decreased due to transition of employees formerly accruing benefits under the defined benefit plan to receiving defined contribution benefits in 2015.


## Meeting and Travel Expenses

- Meeting expenses will be minimized due to a continued effort to keep costs down by holding more meetings via WebEx and teleconferences, at the NPCC offices or member facilities when possible, as well as lower meeting space rental rates through negotiations. However, meeting volume is expected to increase in 2015. Travel expenses due to continued practice of advance bookings, adjustments to class of hotel used, increased meetings at NPCC's offices, and meetings conducted via teleconference will be held to a minimum. Conference calls and Internet meetings, which are budgeted as a part of G\&A and then allocated to the direct programs through indirect expenses, will be conducted for business when practical.


## Operating Expenses and Indirect Expenses

- 2015 Reliability Standards program funding is driven by the need for additional activities to support NERC standards activity to achieve a results based, adequate, set of steady state standards, FERC activity and increased number of rulings and directives are anticipated as a result of the NERC three year work plan. NPCC anticipates expanded activity and plans to prioritize the efforts of existing resources to meet this expanded workload to support reliability and the ERO Strategic Goals. In addition, as standards reviews increase in number, there may be a need to have contractors assist due to constrained resources of NPCC Staff and members.
- NPCC total overhead expenses, such as office rent and office costs will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.


## Other Non-Operating Expenses

- None


## Fixed Asset Additions

- None


## Reliability Standards Program

Funding sources and related expenses for the Reliability Standards section of the 2015 business plan are shown in the table below.

| Statement of Activities and Capital Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reliability Standards |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | Variance |  |  |  | ce |
|  |  |  |  |  |  | 2014 Projection |  |  |  | dget |
|  |  | 14 |  | 14 |  | v 2014 Budget |  | 15 |  | udget |
|  |  | dget |  | ction |  | Over(Under) |  | dget |  | der) |
| Funding |  |  |  |  |  |  |  |  |  |  |
| ERO Funding |  |  |  |  |  |  |  |  |  |  |
| ERO Assessments | \$ | 1,431,239 | \$ | 1,431,239 | \$ | \$ - | \$ | 1,425,578 | \$ | $(5,662)$ |
| Penalty Sanctions |  | 16,091 |  | 16,091 |  | - |  | 30,552 |  | 14,461 |
| Total ERO Funding | \$ | 1,447,330 | \$ | 1,447,330 | \$ | \$ - | \$ | 1,456,129 | \$ | 8,799 |
|  |  |  |  |  |  |  |  |  |  |  |
| Membership Dues |  | - |  | - |  | - |  | - |  | - |
| Testing Fees |  | - |  | - |  | - |  | - |  | - |
| Services \& Software |  | - |  | - |  | - |  | - |  | - |
| Workshops |  | - |  | - |  | - |  | - |  | - |
| Interest |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Total Funding (A) | \$ | 1,447,330 | \$ | 1,447,330 | \$ | \$ - | \$ | 1,456,129 | \$ | 8,799 |
|  |  |  |  |  |  |  |  |  |  |  |
| Expenses |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 502,840 | \$ | 502,840 | \$ | \$ - | \$ | 535,458 | \$ | 32,618 |
| Payroll Taxes |  | 31,305 |  | 31,305 |  | - |  | 31,420 |  | 115 |
| Benefits |  | 131,342 |  | 131,342 |  | - |  | 93,684 |  | $(37,658)$ |
| Retirement Costs |  | 87,449 |  | 87,449 |  | - |  | 85,075 |  | $(2,374)$ |
| Total Personnel Expenses | \$ | 752,936 | \$ | 752,936 | \$ | \$ - | \$ | 745,638 | \$ | $(7,299)$ |
|  |  |  |  |  |  |  |  |  |  |  |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 25,000 | \$ | 25,000 | \$ | \$ - | \$ | 20,000 | \$ | $(5,000)$ |
| Travel |  | 110,000 |  | 110,000 |  | - |  | 115,000 |  | 5,000 |
| Conference Calls |  | - |  | - |  | - |  | - |  | - |
| Total Meeting Expenses | \$ | 135,000 | \$ | 135,000 | \$ | \$ - | \$ | 135,000 | \$ | - |
|  |  |  |  |  |  |  |  |  |  |  |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | 30,000 | \$ | 30,000 | \$ | \$ - | \$ | 25,000 | \$ | $(5,000)$ |
| Office Rent |  | - |  | - |  | - |  | - |  | - |
| Office Costs |  | - |  | - |  | - |  | - |  | - |
| Professional Services |  | - |  | - |  | - |  | - |  | - |
| Computer \& Equipment Leases |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Depreciation |  | - |  | - |  | - |  | - |  | - |
| Total Operating Expenses | \$ | 30,000 | \$ | 30,000 | \$ | \$ - | \$ | 25,000 | \$ | $(5,000)$ |
|  |  |  |  |  |  |  |  |  |  |  |
| Total Direct Expenses | \$ | 917,936 | \$ | 917,936 | \$ | \$ | \$ | 905,638 | \$ | $(12,299)$ |
|  |  |  |  |  |  |  |  |  |  |  |
| Indirect Expenses | \$ | 555,686 | \$ | 555,686 | \$ | \$ - | \$ | 561,221 | \$ | 5,535 |
|  |  |  |  |  |  |  |  |  |  |  |
| Other Non-Operating Expenses | \$ | $\cdot$ | \$ | - | \$ | \$ - | \$ | - | \$ | - |
|  |  |  |  |  |  |  |  |  |  |  |
| Total Expenses (B) | \$ | 1,473,622 | \$ | 1,473,622 | \$ | \$ - | \$ | 1,466,858 | \$ | $(6,764)$ |
|  |  |  |  |  |  |  |  |  |  |  |
| Change in Assets | \$ | $(26,292)$ | \$ | $(26,292)$ | \$ | \$ - | \$ | $(10,729)$ | \$ | 15,563 |
|  |  |  |  |  |  |  |  |  |  |  |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |
| Depreciation | \$ | - |  | - | \$ | S |  | - | \$ | - |
| Computer \& Software CapEx |  | - |  | - |  | - |  | - |  | - |
| Furniture \& Fixtures CapEx |  | - |  | - |  | - |  | - |  | - |
| Equipment CapEx |  | - |  | - |  | - |  | - |  | - |
| Leasehold Improvements |  | - |  | - |  | - |  | - |  | - |
|  |  |  |  |  |  |  |  |  |  |  |
| Allocation of Fixed Assets |  | $(26,292)$ |  | $(26,292)$ |  | - |  | $(10,729)$ |  | 15,563 |
|  |  |  |  |  |  |  |  |  |  |  |
| Inc(Dec) in Fixed Assets (C) |  | $(26,292)$ |  | $(26,292)$ |  | - |  | $(10,729)$ |  | 15,563 |
|  |  |  |  |  |  |  |  |  |  |  |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ | 1,447,330 | \$ | 1,447,330 | \$ | \$ - | \$ | 1,456,129 | \$ | 8,799 |
| TOTAL CHANGE IN WORKING CAPITAL (=A-B-C) | \$ |  | \$ | - - | \$ |  | S | 0 | \$ | 0 |

## Compliance Monitoring and Enforcement and Organization Registration and Certification Program

| Compliance Monitoring and Enforcement and Organization Registration and Certification Program Resources |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 2014 Budget | 2015 Budget | Increase <br> (Decrease) |
| Total FTEs | 16.00 | 16.00 | 0.00 |
| Direct Expenses | \$5,080,485 | \$5,440,048 | \$359,564 |
| Indirect Expenses | \$3,034,462 | \$3,064,686 | \$30,225 |
| Other Non-Operating Expenses | \$0 | \$0 | \$0 |
| Inc(Dec) in Fixed Assets | $(\$ 35,575)$ | \$63,410 | \$98,985 |
| Total Funding Requirement | \$8,079,371 | \$8,568,145 | \$488,774 |

## Program Scope and Functional Description

The Compliance Monitoring and Enforcement and Organization Registration and Certification Program (CORC) Program scope covers: 1) the identification, registration and certification of those entities responsible for meeting the NERC Reliability Standards and any approved Regional Standards; 2) the implementation of the NERC Compliance Monitoring and Enforcement Program (CMEP) in the United States, including the compliance monitoring, assessment and enforcement of NERC Reliability Standards and Regional Reliability Standards. and 3) the implementation of compliance monitoring, assessment and enforcement recommendations in accordance with individual executed MOUs or Agreements in the Canadian Provinces of Ontario, Québec, New Brunswick and Nova Scotia.

The NPCC Compliance Committee (CC) is charged with providing objective stakeholder policy input to NPCC's implementation of the CMEP in the U.S. and compliance related activities under the above mentioned MOUs in the NPCC portion of Canada. With regard to NERC Reliability Standards and Regional Reliability Standards, the CC provides an oversight role of the independent NPCC compliance staff's implementation of the CMEP. In this oversight role the CC will review and endorse the processes used by the NPCC compliance staff in the conduct of the CMEP.

The NPCC compliance staff makes the initial and final determination of alleged violations and determines appropriate penalties and sanctions in accordance with the NERC Sanction Guidelines. To accomplish this objective, NPCC's compliance staff is further divided into four sub- program areas: Compliance Implementation and Registration; Compliance Audit Program; Compliance Enforcement; and Compliance Investigation:

## Compliance Implementation and Registration

The Compliance Implementation and Registration sub-program is responsible for:
a) Identifying for registration, using a risk based registration model, all entities that are required to meet the NERC and Regional Reliability Standards. During the course of this activity, regular communication with registered entities is promoted through face-to face meetings, compliance workshops, teleconferences and email;
b) Development and maintenance of all CMEP Compliance Procedures, Compliance Instructions and all other CMEP related documentation;
c) Development and maintenance of Performance Metrics that are used to measure the quality and effectiveness of CMEP Implementation and its impact on the reliability of the Bulk Electric System;
d) Coordinating the implementation of NPCC Compliance Staff responsibilities as they pertain to the executed MOU with each of the Canadian Provinces in the NPCC Region.
e) Day-to-day implementation of the CMEP;
f) Development of annual CMEP Implementation Plan;
g) Monitoring and assessment of self-certification, self-report, exception reporting, periodic data and complaint submittals;
h) Development and maintenance of CMEP Data Administration Application (CDAA);
i) Development and maintenance of compliance website.
j) Support the anticipated expansion of the number of registered entities in NPCC due to the implementation of the FERC Order related to the definition of Bulk Electric System
k) Conduct Entity Impact Evaluations. Conduct certification(s) of newly identified Transmission Operators (TOPs), as needed.
l) Maintain database of BES assets subject to NERC and NPCC Reliability Standards
m) Participation on various NERC and NPCC working groups to remain apprised of changes to Compliance processes, and commonality of registration, monitoring, auditing, and enforcement approaches.

## Compliance Audit Program

The Compliance Audit Program is charged with conducting both on-site and off-site compliance audits, and spot checks, of NERC Reliability Standards in accordance with the NERC Rules of Procedure and associated NPCC procedures developed under the NPCC Compliance Implementation Program. These audits are performed on the basis of risk to the BES. The yearly schedule is produced consistent with Risk Assessment of registered entities and the frequency of their last audit. The schedule is posted annually on NERC and NPCC public websites. Flexibility may be used in the predefined frequency based on the risk assessment and performance based assessment of each entity scheduled for an audit, and changes requiring certification. The audits are led by qualified senior NPCC Staff and the audit teams prepare public and non-public audit reports with their findings, including the identification of any possible violations. Contents and processing of the reports are in accordance with NERC directives for audit reporting. Specific lessons learned are factored into the audit program to promote continuous improvement and are presented at workshops in conjunction with the Compliance Implementation Program. The comprehensive spot-check program is established based on the NERC actively monitored list, NPCC's assessment of self-certifications, followups on entities who have previously violated a Reliability Standard, follow-up on entities that have been involved in a significant system event, and other requirements which at the discretion
of NPCC could pose a higher risk to reliability if not followed properly. The schedule for Spot Checks is not public.

Resources from the Compliance Audit Program are also used to implement the Certification process for entities intending to register as new TOPs, BAs or RCs, as well as certification reviews of changes made by existing TOPs, BAs and RCs that meet the threshold requiring same. These actions are performed in support of the Compliance Registration Program which encompasses the Certification process. Resources for this activity, which is independent of the audit process, depend on the scope, function, and location of the entity being certified.

## Compliance Investigation

A Compliance Investigation (CI) may be initiated at any time by NPCC in response to a system disturbance, complaint, or possible violation of a Reliability Standard identified by any other means. The CI process requires the establishment of an investigation team that coordinates with NERC and FERC as necessary; and also coordinates with the Situation Awareness Program Area.

## Compliance Enforcement

In processing identified violations NPCC Compliance Enforcement will strive to promote both timeliness and transparency of compliance results, including those efforts associated with meeting the enforcement metrics described below. In addition NPCC will promote the use of self-identification of non-compliance and implementation of discretion, including increased utilization of streamlined tracks such as FFT and discretion as shown below.

Compliance Enforcement responsibilities:
a) Issuing all Notices as described in the CMEP including the Notice of Possible Violation (NOPV), Notice of Find, Fix and Track (FFT) Treatment; Notice of Alleged Violation (NOAV), and the Notice of Confirmed Violation (NOCV);
b) Conducting comprehensive enforcement investigations based on the facts and circumstances related to all possible violations of Reliability Standards, whether identified in an audit, a self-report, complaint, or other source, and determining whether further action is warranted;
c) Reviewing, approving, submitting to NERC and tracking the progress of all mitigation plans /mitigating activities associated with confirmed violations;
d) Coordinating settlement activities once they have been initiated and submitting settlement agreements to NERC for approval;
e) Identifying and processing candidates for the FFT Process;
f) Participating in the Hearing Process by representing NPCC before the Hearing Body. Compliance Hearings would be conducted at NPCC under the supervision of a qualified, independent hearing officer contracted by NPCC;
g) Issuing Remedial Action Directives when appropriate; and
h) Implementing of the Reliability Assurance Initiative (RAI), including :
i. Notifying the registered entity, within 60 days on average, whether a noncompliance will proceed through enforcement, be treated as a compliance exception or additional information is needed ("Triage");
ii. Utilizing the Aggregation of Minimal Risk Process; and
iii. Utilizing the Enforcement Discretion Process.

A set of enforcement metrics, that include those metrics included in the ERO Corporate Goals, are produced that cover the following:
a. Caseload Index and Violation Aging
b. Mitigation Aging
c. Percentage of self-identified violations
d. Percentage of minimal and moderate risk violations through FFT, SNOP or discretion

Each of these metrics will have target values defined that are consistent with those target values identified in the ERO Corporate Goals.

## 2015 Key Assumptions and Cost Impacts

| 2014 | Projected 2015 |
| :--- | :--- |
| 3 Large On-Site Audits | 4 Large On-Site Audits |
| 0 Medium On-Site Audits | 0 Medium On-Site Audits |
| 3 Small On-Site Audits | 3 Small On-Site Audits |
| 12 On-Site CIP Audits | 4 On-Site CIP Audits |
| 20 Large Off-Site Audits | 8 Large Off-Site Audits |
| 7 Medium Off-Site Audits | 21 Medium Off-Site Audits |
| 7 Small Off-Site Audits | 10 Small Off-Site Audits |
| 22 Off-Site CIP Audits | 24 Off-Site CIP Audits |
| 300 Spot Checks | 350 Spot Checks |
| 8 On-site TFE Part B reviews | 4 TFE Part B Reviews |
| 200 Violations (Estimated) | 200 Violations (Estimated) |
| Settlements Covering 100 Violations | Settlements Covering 100 Violations |
| 2 Hearings (Unbudgeted) | 2 Hearings (Unbudgeted) |
| 1 CI (Estimated) | 1 Cl (Estimated) |
| 0 Entity Certifications | 2 Entity Certifications |

- Regarding the Compliance Audit Program, Technical Feasibility Exception (TFE) reviews are conducted both on-site at the entity's facility and at the NPCC offices when possible. TFE's continue to be requested as entities replace and install new equipment/devices/components that meet the criteria set forth in Rules of Procedure Appendix 4D. Compliance estimates 4 on-site reviews will be performed in 2015.
- Increases in Audit costs reflect Risk Assessment activity that is the basis for audit scoping. The Risk Assessment includes an assessment of an entity's Internal Controls which will be used for future audits in the scoping and frequency of engagements.
- Potential increases due to the newly identified role related to implementing the QCMEP in Quebec and the continuing role of implementing the NB CMEP in New Brunswick.
- The 2015 Business Plan projects no increases in Enforcement Processing activities over the 2014 Budget.
- The 2015 Business Plan projects the need for 1 Compliance Investigation. These Compliance Investigations are manpower intensive for NPCC staff (requiring allocation of more resources and potentially higher than normal costs) since previous Compliance Investigations have also included entities outside of NPCC's footprint for which NPCC is the Compliance Enforcement Authority.


## 2015 Goals and Key Deliverables

- Conduct 2015 CMEP consistent with the Reliability Assurance Initiative, incorporating Risk Assessment; Internal Control assessment; Aggregation of Minimal Risk Violations; and Enforcement Discretion and all NERC Reliability Standards contained in the NERC actively-monitored list for 2015 and any approved and applicable Regional Reliability Standards
o Process identified violations as effectively as possible, including the timely identification of a violation, timely issuance of violation notices including the NOPV; the Notice of Alleged Violation and the NOCV
o Implement settlement process when applicable and send proper notifications to NERC and FERC
o Conduct necessary Hearings related to resolution of outstanding disputes regarding violations and/or sanctions. Send results of hearings to NERC and FERC ${ }^{6}$;
- Continue to enhance the settlement process by modifying existing practices and adopting new practices to reduce the duration of settlement negotiations without sacrificing the rigor and quality of the negotiated settlements. Develop and analyze appropriate performance metrics that track settlement process duration and utilize results of analysis to further enhance process.
- Implement compliance responsibilities identified in the approved Canadian MOUs ${ }^{7}$;
- Annual report to NERC and Régie on NPCC implementation of QCMEP
- Annual report to NERC and New Brunswick Electric Utility Board (EUB) on NPCC implementation of NB CMEP.
- Review and revise NPCC Compliance Registry based on a risk-based approach ${ }^{8}$;
- Evaluate CMEP and Canadian entity compliance program implementation with the objective of establishing a long-term strategy for compliance improvement, and initiate the implementation of the long term strategy ${ }^{9}$;
- Provide NPCC Regional Entity input, through participation in appropriate NERC compliance committees, on policy and implementation issues related to compliance and enforcement including the development of compliance elements for all new or revised NERC Reliability Standards ${ }^{10}$;

[^34]- Provide required information to NERC on a timely basis including reporting of alleged violations and confirmed violations ${ }^{11}$;
- Track the progress of, report status of, and approve mitigation plans ${ }^{12}$;
- Conduct 2015 Compliance Audit Schedule based on risk to the BES and number of registered entities (Each audit covers a single registered entity that could be audited for multiple Functional Model types that they are registered for and is done in accordance with the 2015 Compliance Audit Program schedule) ${ }^{13}$; and promote RAI initiatives by:
o Utilizing the Audit Checklist and Auditor's Handbook for all on-site and offsite audits
o Preparing a Risk Assessment and Internal Control Assessment for all on-site audits ${ }^{14}$;
- In addition, 28 registered entities will be audited for the requirements of the version in place for CIP 002 to CIP 009. These will be separate audits. On-site CIP audits may be combined with the normally scheduled 2015 on-site audits ${ }^{15}$;
- A spot check can be viewed as a limited unscheduled small off-site compliance audit that will be utilized to verify self-certification submittals that have been done earlier in the year or other requirements based on factors as described in the Compliance Audits section. In 2015 the number of spot checks to be done is estimated to be $350^{16}$;
- Assure that NPCC Staff is trained to conduct Compliance Audits including CIP Compliance Audit training ${ }^{17}$;
- Assure that NPCC Staff is trained to conduct Certification of entities intending to Register as BA, RC or TOP for the first time, or Certification Reviews of changes by existing BAs, RCs or TOPs that meet the criteria requiring a Certification Review ${ }^{18}$;
- NPCC is working with the other Regions to access, train and perform certifications (and re-certification) in an effort to be consistent across the ERO ${ }^{19}$;
- Continue to actively perform a risk profile of each entity prior to audit and upon completion of an audit, continue to identify risk and reliability gaps ${ }^{20}$;

[^35]- Develop and implement compliance reform via the Reliability Assurance Initiative (RAI) by being an integral participant in committees and workgroups involved in the RAI ${ }^{21}$;
- Promote a culture of compliance that addresses reliability risks of NPCC registered entities by using reliability gap analysis. Assess and evaluate registered entity’s Internal Controls as part of the audit and spot check process ${ }^{22}$;
- Continue to expand the use of discretion through the utilization of compliance exception. ${ }^{23}$;
- NPCC will collaborate with NERC to promote better coordination, planning, delivery and management of training efforts across the enterprise through a unified learning management system (LMS), without adversely impacting region-specific training requirements;
- Continue to implement physical security outreach and Cyber Security outreach by visiting four registered entity sites to perform an assessment of their physical security, evaluate their Cyber Security and supply recommendations for improvements ${ }^{24}$;
- Enhance the CDAA to expand its capabilities from both the registered entity perspective and the NPCC Compliance Staff perspective ${ }^{25}$;
- Conduct 2015 Compliance Workshops and interim information sessions for registered entities as necessary as a part of Training and Education program area ${ }^{26}$.
Adopt and promote practices to enhance the benefits of the self-reporting of violations by both the Regional Entity and the registered entity. This would include improvement to the registered entity internal processes used for identifying and submitting self-reports (e.g. adoption of an aggregated approach for submittal of self-reports, etc.), improvement in the way Regional Entities process self-reports and the streamlining and standardizing of the amount and type of data needed to evaluate a self-report.

[^36]Based on the portion of professional/technical staff time and other resources devoted to Compliance monitoring and enforcement and organizational registration and certification, NPCC estimates that it will expend 58 percent of its resources on this activity.

## Funding Sources and Requirements - Explanation of Increase (Decrease)

Funding Sources (Other than ERO Assessments)

- U.S. Penalty Sanctions remitted from 7/1/13 through 6/30/14 reduce U.S. LSE designee assessments for 2015.


## Personnel Expenses

- NPCC anticipates no need to hire additional personnel in this program area in 2015.
- Salaries expense reflects implementation of recommendations of NPCC's Management Development and Compensation Committee, which were based on an independent compensation study.
- Benefits expense decreased due to more staff opting out of company sponsored health insurance for superior coverage through prior employer or spouse.
- Retirement expense decreased due to transition of employees formerly accruing benefits under the defined benefit plan to receiving defined contribution benefits in 2015.


## Meeting and Travel Expenses

- Meeting expenses will be minimized due to a continued effort to keep costs down by holding more meetings via teleconference, at the NPCC offices or member facilities, combining or appending meetings to other mandatory training/meetings, as well as lower meeting space rental rates through negotiations. Travel expenses due to continued practice of advance bookings, adjustments to class of hotel used, increased meetings at NPCC's offices, and meetings conducted via teleconference will be held to a minimum, however, the amount of activity is expected to increase in 2015. Conference calls and internet meetings, which are budgeted as a part of G\&A and then allocated to the direct programs through indirect expenses, will be conducted for business when possible.


## Operating Expenses and Indirect Expenses

- Consultant and contractor costs increased due to increased workload related to the initial implementation of RAI, incorporating Risk Assessment and Internal Control assessment. Without this one time ramp up in RAI endeavors for 2015, contractor costs would have remained relatively flat. These joint ERO Enterprise initiatives are intended to benefit the registered entities, Regional Entities and NERC. With a risk and performance based assessment of each registered entity, audits will transition to a periodicity more reflective of the risk profile of the entity such that some audits will be more in-depth while others may have a reduced scope which will require less independent contractor resources.
- NPCC total overhead expenses, such as office rent and office costs, will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.

Other Non-Operating Expenses

- None


## Fixed Asset Additions

- Software development costs related to CMEP Data Administration Application (CDAA) and Compliance Issues Tracking System (CITS) enhancements are projected to continue into 2015.


## Compliance Monitoring and Enforcement and Organization Registration and Certification Program

Funding sources and related expenses for the compliance enforcement and organization registration and certification section of the 2015 business plan are shown in the table below.

| Statement of Activities and Capital Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Compliance Monitoring and Enforcement and Organization Registration and Certification |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | Variance |  |  |  | ance |
|  |  |  |  |  |  | 2014 Projection |  |  |  | udget |
|  |  | 14 |  | 14 |  | v 2014 Budget |  | 15 |  | Budget |
|  |  | dget |  | ction |  | Over(Under) |  | dget |  | Under) |
| Funding |  |  |  |  |  |  |  |  |  |  |
| ERO Funding |  |  |  |  |  |  |  |  |  |  |
| ERO Assessments | \$ | 7,991,503 | \$ | 7,991,503 | \$ | \$ - | \$ | 8,401,311 | \$ | 409,808 |
| Penalty Sanctions |  | 87,868 |  | 87,868 |  | - |  | 166,834 |  | 78,966 |
| Total ERO Funding | \$ | 8,079,371 | \$ | 8,079,371 | \$ | - | \$ | 8,568,145 | \$ | 488,774 |
|  |  |  |  |  |  |  |  |  |  |  |
| Membership Dues |  | - |  | - |  | - |  | - |  | - |
| Testing Fees |  | - |  | - |  | - |  | - |  | - |
| Services \& Software |  | - |  | - |  | - |  | - |  | - |
| Workshops |  | - |  | - |  | - |  | - |  | - |
| Interest |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Total Funding (A) | \$ | 8,079,371 | \$ | 8,079,371 | \$ | - | \$ | 8,568,145 | \$ | 488,774 |
|  |  |  |  |  |  |  |  |  |  |  |
| Expenses |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 2,287,504 | \$ | 2,287,504 | \$ | - | \$ | 2,393,832 | \$ | 106,328 |
| Payroll Taxes |  | 162,571 |  | 162,571 |  | - |  | 162,511 |  | (59) |
| Benefits |  | 537,087 |  | 537,087 |  | - |  | 479,499 |  | $(57,588)$ |
| Retirement Costs |  | 298,890 |  | 298,890 |  | - |  | 284,206 |  | $(14,684)$ |
| Total Personnel Expenses | \$ | 3,286,052 | \$ | 3,286,052 | \$ | - | \$ | 3,320,048 | \$ | 33,997 |
|  |  |  |  |  |  |  |  |  |  |  |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 25,000 | \$ | 25,000 | \$ | - | \$ | 32,000 | \$ | 7,000 |
| Travel |  | 375,000 |  | 375,000 |  | - |  | 360,000 |  | $(15,000)$ |
| Conference Calls |  | - |  | - |  | - |  | - |  | - |
| Total Meeting Expenses | \$ | 400,000 | \$ | 400,000 | \$ | - | \$ | 392,000 | \$ | $(8,000)$ |
|  |  |  |  |  |  |  |  |  |  |  |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | 1,394,433 | \$ | 1,394,433 | \$ | - | \$ | 1,728,000 | \$ | 333,567 |
| Office Rent |  | - |  | - |  | - |  | - |  | - |
| Office Costs |  | - |  | - |  | - |  | - |  | - |
| Professional Services |  | - |  | - |  | - |  | - |  | - |
| Computer \& Equipment Leases |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Depreciation |  | - |  | - |  | - |  | - |  | - |
| Total Operating Expenses | \$ | 1,394,433 | \$ | 1,394,433 | \$ | - | \$ | 1,728,000 | \$ | 333,567 |
|  |  |  |  |  |  |  |  |  |  |  |
| Total Direct Expenses | \$ | 5,080,485 | \$ | 5,080,485 | \$ | - | \$ | 5,440,048 | \$ | 359,564 |
|  |  |  |  |  |  |  |  |  |  |  |
| Indirect Expenses | \$ | 3,034,462 | \$ | 3,034,462 | \$ | - | \$ | 3,064,686 | \$ | 30,225 |
|  |  |  |  |  |  |  |  |  |  |  |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
|  |  |  |  |  |  |  |  |  |  |  |
| Total Expenses (B) | \$ | 8,114,946 | \$ | 8,114,946 | \$ | - - | \$ | 8,504,735 | \$ | 389,788 |
|  |  |  |  |  |  |  |  |  |  |  |
| Change in Assets | \$ | $(35,575)$ | \$ | $(35,575)$ | \$ | - - | \$ | 63,410 | \$ | 98,985 |
|  |  |  |  |  |  |  |  |  |  |  |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |
| Depreciation | \$ | - |  | - | \$ | - - | \$ | - | \$ | - |
| Computer \& Software CapEx |  | 108,000 |  | 108,000 |  | - |  | 122,000 |  | 14,000 |
| Furniture \& Fixtures CapEx |  | - |  | - |  | - |  | - |  | - |
| Equipment CapEx |  | - |  | - |  | - |  | - |  | - |
| Leasehold Improvements |  | - |  | - |  | - |  | - |  | - |
|  |  |  |  |  |  |  |  |  |  |  |
| Allocation of Fixed Assets |  | $(143,575)$ |  | $(143,575)$ |  | - |  | $(58,590)$ |  | 84,985 |
|  |  |  |  |  |  |  |  |  |  |  |
| Inc(Dec) in Fixed Assets (C) |  | $(35,575)$ |  | $(35,575)$ |  | - |  | 63,410 |  | 98,985 |
|  |  |  |  |  |  |  |  |  |  |  |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ | 8,079,371 | \$ | 8,079,371 | \$ | \$ - | \$ | 8,568,145 | \$ | 488,774 |
|  |  |  |  |  |  |  |  |  |  |  |
| TOTAL CHANGE IN WORKING CAPITAL (=A-B-C) | \$ | (0) | \$ | (0) | \$ | - | \$ | (0) | \$ | 0 |

## Reliability Assessment and Performance Analysis Program

| Reliability Assessment and Performance Analysis Program Resources <br> (in whole dollars) |  |  |  |
| :--- | :---: | :---: | :---: |
|  | 2014 Budget |  |  | 2015 Budget | Increase |
| :---: |
| (Decrease) |

## Program Scope and Functional Description

NPCC, through its top technical committee, the Reliability Coordinating Committee (RCC), integrates the deliverables of its Task Force's and Working Group’s Reliability Assessment and Performance Analysis related activities. Consistent with the applicable NERC Reliability Standards, these efforts include:

- Reviewing the adequacy of the NPCC systems to supply load considering forecast demand, installed and planned supply and demand resources and required reserves in accordance with NPCC Reliability Directory No. 1 and other related reliability directories; and,
- Assessing the impact of planned transmission and resource additions or modifications on NPCC system reliability in accordance with NPCC Reliability Directory No. 1 and other related reliability directories.

Seasonal assessments of the overall NPCC resource adequacy assessments are performed and possible actions to mitigate any potential problems are identified. NPCC reviews operations and disturbances both internal and external to the Region in order to identify any lessons to be learned and recommends any necessary follow-up actions.

If appropriate, enhancements to Regional Standards or NPCC's more stringent, Regionallyspecific reliability requirements are also recommended. NPCC promotes and conducts both interArea and inter-Regional studies to enhance reliability and operational effectiveness, and provides a forum for the discussion and coordination of operating issues within the NPCC Region and with other Regions.

## 2015 Key Assumptions

Support of identified key NERC Reliability Assessment and Performance Analysis (RAPA) projects; ${ }^{27}$ NERC and Regional Entities will gather data or perform analysis in support of U.S. Federal and NERC initiatives, such as:

- Report Recommendation from the "NERC Special Reliability Assessment Interim Report: Effects of Geomagnetic Disturbances (GMD) on the Bulk Power System", including:
i. enhancing system models in support of the study of GMD impacts;
ii. Enhancing GMD notification procedures; and,
iii. Determining optimum locations for monitoring capability on transformers, based on studies and operational experience.
- Follow-up study from the recommendations of the "2013 NERC Special Reliability Assessment: Increasing Dependence on Natural Gas for Electric Power - Phase II: A Vulnerability and Scenario Assessment for the North American Bulk Power System;"
- System frequency response analysis; and,
- Assessing reliability issues resulting from compliance to final EPA environmental regulations, reliable integration of new technologies such as renewable energy, smart grid, energy storage, and/or reliability assessment of increased penetration of electric vehicles.

In support of NERC's 2015 Business Plan and Budget Program Area Services and Activities, NPCC will continue to:

- Vet proposed and future metric development, collection, and analysis with industry stakeholders and identify and spotlight trends through assessments of the availability data systems and metrics (e.g., TADS, DADS, GADS, TADS, SED, etc.)
- Conduct post-seasonal assessments (Summer and Winter) and additional scenario and special reliability assessments as required. Specialized contractors may be used to complete detailed analysis to support scenario assessments. Special reliability assessments currently proposed may include: changes in resource mix due to environmental regulations, electric/gas system interdependency, delays in proposed transmission development in the reliable integration of renewable resources.

In addition, NPCC supports:

- Development of NERC's Reliability Assessment Data System (RADS), ${ }^{28}$ for the reporting and validation of the NERC Reliability Assessment Subcommittee Seasonal and Long-Term Reliability Assessment data requirements.
- Evaluation of a common set of probabilistic reliability indices and probabilisticbased work products to supplement the NERC Long-Term Reliability Assessments;

[^37]- Coordination with event analysis, lesson learned ${ }^{29}$ and model validation activities. ${ }^{30}$ Specialized contractors may be used to complete detailed analysis to support model data collection and validation;
- Support of NERC PMO IT deployments; ${ }^{31}$ and,
- Provide support and technical input for related BES risks identified by the NERC Reliability Issues Steering Committee (RISC). ${ }^{32}$


## Definition of the Bulk Electric System (BES) Definition ${ }^{33}$

Implementation of the Bulk Electric System (BES) definition and Exception Process as of the July 1, 2014 BES Effective Date is not expected to significantly impact resources requirements in this program area for 2015. NPCC’s 2014 survey of its registered entities did not indicate that an overwhelming number of NPCC BES Exception requests would be sought based on the filed BES Definition. Based on the Commission approved BES Definition ${ }^{34}$ and the NPCC BES 2014 survey results, the 2015 RAPA personnel should be sufficient to process any NPCC BES Exception requests received in 2015.

NPCC will use the NERC PMO developed BESnet application and related BES reference and guidance documents to assist industry in the implementation of the BES definition approved by the Federal Energy Regulatory Commission. The BES reference and guidance documents, processes and tool are designed to provide industry with certainty and clarity about the implementation of the revised BES definition.

The procedure to request an exception from application of the BES definition is set forth in Appendix 5C to the NERC Rules of Procedure, effective July 1, 2014. The REMG formed the BES Exception Process Working Group (BEPWG) in 2012 - comprised of representations from the eight Regional Entities and NERC staff - to help create an efficient and effective Regional mechanism for processing Entity self-determined BES notifications and BES Exception requests. The activities of the BEPWG are expected to continue in 2015, in order to provide a Regional forum for consistent Regional BES Exception request review and 'lessons learned.’

## Eastern Interconnection Reliability Assessment Group ${ }^{35}$

The primary function of the Eastern Interconnection Reliability Assessment Group (ERAG) is to augment reliability of the bulk-power system in the Eastern Interconnection through periodic reviews of generation and transmission expansion. These assessments are conducted by the

[^38]ERAG Steering Committees. In addition, ERAG has the responsibility to develop the annual set of seasonal and future steady state and dynamic simulation base cases for use by the Regional Entities and other industry groups in the Eastern Interconnection. This is done through the ERAG Multi-Regional Modeling Working Group (MMWG). NPCC participates in the ERAG activities as one of the six Eastern Interconnection Regional Entities.

NPCC RAPA staff participates with the ERAG Management Committee and acts as the liaison between the ERAG MMWG and the NPCC SS-37 Working Group; activities include:

## Management Committee Activities

$\checkmark$ Oversee the steady state and dynamic simulation base case development;
$\checkmark$ Make necessary changes to the modeling of governor-turbine control systems to achieve frequency response that more closely reflects actual response during system frequency deviation events. Oversee ERAG Multi-Regional Modeling Working Group (MMWG) changes to the dynamics base cases;
$\checkmark$ Continue the review of the NERC governor survey information to assess how to revise the governor-turbine plant control models at most generators;
$\checkmark$ Review the 2015 Summer and 2015-2016 Winter Assessments, including, the MRSS (MRO-RFC-SERC-SPP) and the R-N (RFC-NPCC) Assessments of anticipated inter-Regional, inter-Balancing Authority transfer limit conditions and sensitivities;
$\checkmark$ Participate in discussions with NERC staff, North American Transmission Forum, NERC System Analysis and Modeling Subcommittee, FERC staff and possibly North American Generation Forum representatives regarding base case modeling improvements and future general industry modeling improvements;
$\checkmark$ Develop ERAG Strategic Direction (i.e. anticipated new developments in MMWG process and system assessments); and,
$\checkmark$ Confirm MMWG cases and assessments continue to have sufficient protections in place for use and transmittal of confidential data and information.

## Multi-Regional Modeling Working Group Items

$\checkmark$ Complete the steady state and dynamic simulation base cases for the 2015 series of cases;
$\checkmark$ Complete necessary changes to the modeling of governor-turbine control systems to achieve frequency response that more closely reflects actual response during system frequency deviation events;
$\checkmark$ Continue the review of the NERC governor survey information to assess how to revise the governor-turbine plant control models at most generators. Recommend the necessary changes in the models for specific generators;
$\checkmark$ Incorporate dispatch information into the future and seasonal ERAG MMWG base cases so that the dispatches are more closely aligned with economic dispatch practices;
$\checkmark$ Determine how the Regional MMWG case development processes will change due to the use of the new web-based System Dynamics Data Base program;
$\checkmark$ Verify procedures in the MMWG manual are followed;
$\checkmark$ Check and confirm that the dynamic model data passes all applicable checks and acceptance criteria. Include 60 second steady state simulation of each case to detect numerical errors; and,
$\checkmark$ Apply changes to the MMWG dynamics case so they are available for interconnection dynamics studies.

## System Assessments Items

$\checkmark$ Completion of 2015 Summer and 2015-2016 Winter Assessments, including, the MRSS and the R-N Assessments of anticipated inter-Regional, inter-Balancing Authority transfer limit conditions and sensitivities; and,
$\checkmark$ Take additional steps to achieve consistency among the MRSS and the R-N study forums assessments and practices. Make additional recommendations to the ERAG Management Committee on how to complete this process.

## NERC ${ }^{36}$

Through its Task Forces and Working Groups, NPCC will continue to provide the NPCC Regional perspective with active NPCC RAPA staff participation on the NERC Planning and Operating Committees and key related NERC Subcommittees, Task Forces and Working Groups:
$\checkmark$ Reliability Assessment Data Working Group (RADWG);
$\checkmark$ Protection System Mis-operations Task Force (PSMTF);
$\checkmark$ Spare Equipment Database Task Force (SEDTF);
$\checkmark$ Demand Response Availability Data System Working Group (DADSWG);
$\checkmark$ Generating Availability Data System Working Group (GADSWG);
$\checkmark$ Transmission Availability Data System Working Group (TADSWG);
$\checkmark$ Model Validation Working Group (MVWG);
$\checkmark$ Reliability Assessment Subcommittee (RAS) - Seasonal and Long-Term Reliability Assessments;
$\checkmark$ System Analysis and Modeling Subcommittee (SAMS);
$\checkmark$ Performance Analysis Subcommittee (PAS);
$\checkmark$ Regional support and coordination of the NERC:
o Generator Availability Data System (GADS);
o Demand Availability Data System (DADS);
o Transmission Availability Data System (TADS);
o Spare Equipment Data Base System (SEDS);
$\checkmark$ Incorporating any probabilistic reliability metrics required for the 2015 NERC LongTerm Reliability Assessment through the NPCC 2015 Long Range Adequacy Overview;
$\checkmark$ Providing analytic support to ERO-RAPA group for the:
o Analysis of Relay and Special Protection System mis-operations;
o Regional coordination of data required for the calculation of metrics proposed by the NERC Reliability Metrics Working Group; and,
o Other activities as directed by the ERO-Executive Management Group.
As well as:
$\checkmark$ Updating the NPCC Electric System Map; Producing the annual NPCC Load, Capacity, Energy, Fuels, and Transmission (LCEFT) Report
$\checkmark$ Liaison with the New York Defensive Strategies Working Group in coordination and implementation of Synchro-Phasor measurement devices on the NPCC and neighboring systems and monitor related efforts of the NERC North American Synchro-Phasor Initiative;
$\checkmark$ Processing BES Exception requests received through the BES Exception Process;

[^39]$\checkmark$ Participating in on-going NERC analysis of the Eastern Interconnection Frequency Response;
$\checkmark$ Developing NPCC guidelines for load modeling in system reliability studies;
$\checkmark$ Conducting NPCC resource adequacy assessments addressing impacts of emerging reliability issues identified by NERC (e.g., environmental requirements, gas-electric system interdependency, distributed generation, delays in transmission plans, etc.);
$\checkmark$ Coordinating any resulting NPCC inter-Area reliability analyses required to assess the proposed integration of related large-scale renewable resource proposals from Regional activities;
$\checkmark$ Completing the 2015 NERC Seasonal (and post Seasonal) Reliability Assessments; and,
$\checkmark$ Completing the 2015 NERC Long-Term Reliability Assessment.

## 2015 Goals and Key Deliverables

## Task Force on Coordination of Planning

The primary mission of the NPCC Task Force on Coordination of Planning (TFCP) is to promote reliability through the coordination of NPCC Area and NERC planning processes and activities. In addition, the TFCP provides technical support regarding operating expertise to the NPCC Regional Standards Committee and the NPCC Compliance Committee as requested.

TFCP activities include, but are not limited to:

- Leading the NPCC Task Force review of the revision of NPCC criteria, guidelines, and procedures related to planning, and of those documents which provide for the uniform implementation, interpretation and monitoring of compliance with criteria, guidelines and procedures related to planning.
- Supporting the NPCC Directory Project by either drafting, reviewing or approving directories.
- Coordinating, monitoring, reviewing, and making recommendations on proposed or modified Special Protection Systems.
- Facilitating Wide-Area Planning by supporting the Joint ISO/RTO Planning Committee Activities, implementation of the Northeast Planning Protocol, and performing any NPCC interconnection reliability analyses, as required.
- Reviewing the overall reliability of the NPCC Areas and performing multi-Area probabilistic reliability assessments.
- Identifying and assisting in the development of new Regional Reliability Standards.
- Assisting the NPCC Compliance Subcommittee, to monitor and coordinate the compliance efforts of the Areas with NPCC planning documents and registered entities with NERC Reliability Standards.
- Reviewing the Standards Authorization Requests and NERC Reliability Standards as well as participating in the NERC process. Educating and informing NPCC membership and registered entities of developments.
- Ensuring coordination of data and assumptions for conducting NPCC planning studies (i.e. load forecasts, reserve requirements, DOE EIA 411 data, and new facilities)
- Monitoring the activities of other NPCC Task Forces to ensure coordination with planning activities.
- Reviewing the adequacy of the NPCC systems to supply load considering forecast demand, installed and planned supply and demand resources and required reserve margins in accordance with NPCC Directory No. 1 based on a schedule set forth in the Reliability Assessment Program.
- Coordinating the review of the compliance of future Area plans with the Basic Criteria, including an analysis of resource and transmission system additions, and the potential inter-Area effects of special protection systems, in accordance with NPCC Reliability Directory No. 1 based on a schedule set forth in the Reliability Assessment Program. (Specific projects, which in the opinion of the Task Force could have an impact on the reliability of the NPCC Bulk Power System, may be reviewed outside of the set schedule).

Key TFCP Reliability Assessment and Performance Analysis Deliverables
$\checkmark$ Coordinating activities related to reactive power and voltage control practices, which includes Under Voltage Load Shedding (UVLS) with the Task Force on Coordination of Operation and the Task Force on System Studies to ensure that developments in the NERC Planning Committee and its Subcommittees are addressed.
$\checkmark$ Monitoring the actions of the NERC Performance Analysis Subcommittee (PAS).
$\checkmark$ Monitoring the actions of the NERC System Analysis and Modeling Subcommittee (SAMS).
$\checkmark$ Overseeing the A-10 BPS Implementation Plan.
$\checkmark$ Overseeing the summer 2015 and winter 2015-2016 NPCC multi-area probabilistic reliability evaluations.
$\checkmark$ Overseeing the 2015 NPCC Long-Range Adequacy Overview.
$\checkmark$ Evaluating and approving Balancing Authority Area Transmission Reviews.
$\checkmark$ Coordinating, monitoring, reviewing, and making recommendations on the retirement of existing in-service Special Protection Systems (SPS); and the implementation of proposed new or modified Special Protection Systems.
$\checkmark$ Review the NPCC SPS criteria with respect to proposed NERC SPS Standards.
$\checkmark$ Monitoring industry practices and making recommendations to NPCC on transmission adequacy standards related to intermittent generation such as wind or solar-voltaic.
$\checkmark$ Reviewing and giving direction to other task forces on changes required to the Underfrequency Load Shedding (UFLS) program required to take into account increasing amounts of distribution connected generation and/or intermittent generation.
$\checkmark$ Evaluating and recommending approval of NPCC Balancing Authority Area Resource Adequacy Assessments.
$\checkmark$ Monitoring the developments in demand resources, energy efficiency, distributed generation and conservation methods including all intermittent renewable resources.
$\checkmark$ Conducting resource adequacy assessment studies addressing emerging reliability issues as identified by the NERC Planning Committee (e.g., environmental requirements, etc.)
$\checkmark$ Supporting Joint ISO/RTO Planning Committee activities.
$\checkmark$ Facilitating Wide-Area Planning through participation in Regional and coordinating any resulting required inter-Area Reliability Assessment of the proposed integration related large-scale renewable resource proposals.
$\checkmark$ Completion of the NERC 2015 Long-Term Reliability Assessment.
$\checkmark$ Completion of the 2015 Review of NPCC Interconnection Assistance Reliability Benefits Study.
$\checkmark$ Review NERC Events Analysis Lessons Learned for consideration in TFCP activities and processes.

## Task Force on System Studies

The primary mission of the NPCC Task Force on System Studies (TFSS) is to provide active overall coordination of system studies of the reliability of the interconnected bulk power systems
and for the review of certain NPCC documents. In addition, the TFSS provides technical support regarding operating expertise to the NPCC Regional Standards Committee and the NPCC Compliance Committee as requested.

The activities of the TFSS include, but are not limited to:

- Participating with the Task Force on Coordination of Planning, the Task Force on Coordination of Operation, and the Task Force on System Protection in reviews of the NPCC Reliability Directory No. 1 and other NERC Reliability Standards and NPCC criteria, guidelines, procedures and documents which provide for the uniform implementation, interpretation and monitoring of conformance to criteria, guidelines and procedures related to system studies.
- Conducting NPCC Balancing Authority Area Reviews, in accordance with NPCC Reliability Directory No. 1, based on material presented by the Balancing Authority Areas. These reviews will assess the impact of planned transmission and resource additions or modifications on system reliability, and determine the Balancing Authority Area's conformance with the NPCC Basic Criteria.
- Reviewing and approving changes to Balancing Authority Areas’ lists of bulk power system elements, in accordance with the Classification of Bulk Power System Elements (Document A-10). Annually review and update the NPCC BPS List.
- Reviewing and classifying new and modified Special Protection Systems, in accordance with NPCC Reliability Directory No. 7. Annually reviewing and updating the NPCC Special Protection System List.
- Conducting such load flow, transient stability, and other studies as required analyzing the overall reliability of the planned bulk power transmission systems of NPCC and the interconnections between NPCC and other Regional reliability organizations. As a part of this effort, analyze potential inter-Area effects of Special Protection Systems.
- Conducting analytical studies as appropriate to support the coordination of system planning, system operation and system protection in NPCC.
- Maintaining, through the SS-37 Working Group, a library of load flow base cases and associated dynamics data, for use in and support of Balancing Authority Area Reviews, overall transmission assessments, operational studies, inter-Regional studies, etc. Coordinate this effort with the NERC inter-Regional base case development process.
- In conjunction with other Task Forces, reviewing major system disturbances to ascertain the adequacy of the interconnected systems. Also, reviewing any associated recommendations for system modifications and considering the need for criteria changes.
- Identifying and recommending improved system study techniques. This includes, but is not limited to, the following:
o improved techniques and models for power system simulation;
o improved techniques for power system Reliability Assessment;
- Conducting a periodic review of the adequacy of the NPCC underfrequency load shedding program. Annually reviewing and updating the NPCC underfrequency load shedding database.
- Maintaining a listing and monitoring the status of major transmission and generation projects within NPCC.
- Maintaining liaison with other NPCC Task Forces and report to the Reliability Coordinating Committee as required.
- Monitoring the work of industry research and development organizations such as the IEEE, Canadian Electricity Association, Electric Power Research Institute, CIGRE and other technical organizations.
- Annually developing updates to the NPCC Electric System Map


## Key TFSS Reliability Assessment and Performance Analysis Deliverables:

$\checkmark$ Conducting Balancing Authority Area reviews, in accordance with the Guidelines for NPCC Area Transmission Reviews (Appendix B of NPCC Reliability Directory No. 1), based on material presented by the Balancing Authority Areas. These reviews assess the impact of planned transmission and resource additions or modifications on system reliability, and determine the Area's conformance with the NPCC Basic Criteria. Through the Area Transmission Reviews, re-evaluate the performance and classification of existing SPSs and Dynamic Control Systems as appropriate.
$\checkmark$ Reviewing and classifying new and modified Special Protection Systems, in accordance with NPCC Reliability Directory No. 7 Procedure for NPCC Review of New or Modified Bulk Power System Special Protection Systems as required.
$\checkmark$ Reviewing and approving changes to the Balancing Authority Areas’ lists of bulk power system elements, in accordance with the Classification of Bulk Power System Elements (Document A-10), as required.
$\checkmark$ Updating the NPCC Bulk Power System List.
$\checkmark$ Through the ad hoc Load Modeling Task Force, address the recommendations from the SS-38 Load Modeling White Paper regarding the use of dynamic load models for transient stability analysis.
$\checkmark$ Perform the Overall NPCC Transmission Assessment.
$\checkmark$ Reviewing and updating NPCC Undervoltage Load Shedding Database.
$\checkmark$ Participation in on-going NERC analysis of the Eastern Interconnection Frequency Response.
$\checkmark$ Through the SS-37 Working Group, develop the annual library of power flow base cases and associated dynamic models for use by NPCC members and input into the development of the MMWG library of power flow and dynamic cases and databases for the Eastern Interconnection
i. Final development of NPCC power flow models for 2015
ii. Final development of NPCC dynamic models for 2015
iii. Address wind modeling issues including maintaining a database of NPCC wind models for use in the MMWG library of power flow and dynamic cases and databases for the Eastern Interconnection.
$\checkmark$ Annually performing event replication and exercise the procedure. Reviewing existing Regional criteria and procedures for validation of data used in power flow and dynamic simulations by benchmarking against actual system performance. If the existing criteria or procedures are found to be deficient, propose changes to provide for adequate data validation
$\checkmark$ Updating the NPCC SS-37 Working Group Procedure Manual and other related documents including the Master Tie line Data, and Interchange Schedule, as required.
$\checkmark$ Providing mid-term updates to the Library of NPCC/MMWG cases
$\checkmark$ Enhancing the governor modeling on a unit by unit basis suitable for use in the system simulation.
$\checkmark$ Annually reviewing and updating a list of NPCC underfrequency load shedding.
$\checkmark$ Coordinate activities with those of the New York State Defensive Strategies Working Group, regarding the coordination and implementation of Synro-Phasor measurement devices.
$\checkmark$ Incorporate NPCC guidelines for load and power system modeling approved by the RCC
$\checkmark$ Classification of Bulk Power System Elements.
$\checkmark$ Participate at Siemens PTI User Group meetings to provide PSSE program enhancements
$\checkmark$ Supporting Regional system studies to integrate large-scale renewable resources.
$\checkmark$ Provide support to NERC Event Analysis process, as needed.
$\checkmark$ Develop updates to the NPCC Electric System Map.
$\checkmark$ Provide support to the NERC Model Validation Working Group (MVWG) as needed.
$\checkmark$ Review NERC Events Analysis Lessons Learned for consideration in TFSS activities and processes.

## Task Force on System Protection (TFSP)

The purpose of the NPCC Task Force on System Protection (TFSP) is to promote the reliable and efficient operation of the interconnected bulk power systems in Northeastern North America through the establishment of directories, criteria, guidelines, and procedures and coordination of design, relative to the protection associated with the bulk power systems. In addition, the TFSP provides technical support regarding operating expertise to the NPCC Regional Standards Committee and the NPCC Compliance Committee as requested.

The Reliability Assessment and Performance Analysis activities of the TFSP include, but are not limited to:

- Assessing proposed protection systems and special protection systems in accordance with NPCC Reliability Directory No. 4 and No. 7.
- Reviewing and analyzing the performance of protection systems following selected major power system disturbances and events, inside as well as outside NPCC in accordance with NPCC Reliability Directory No. 4. Issue recommendations for changes to NPCC Documents, as appropriate.
- Providing technical advice on protection issues to NPCC and coordinate with other Task Forces on the application of Intelligent Electronic Devices (IEDs) that include functions related to energy management systems in addition to their protective functions, in order to safeguard the integrity of the protective functions.
- Through the SP-7 Working Group, review, on a quarterly basis all protection system (including special protection system) misoperations reported to NPCC.
- Reviewing and assessing significant protection issues of common interest or informational value.
- Reviewing and assessing regulatory and industry based documents as they relate to system protection.
- Maintaining an effective liaison with North America groups working in the protection areas (for example: NERC System Protection \& Control Subcommittee.)
- Exchanging information with other power pools, Regional Reliability Councils, Regional Transmission Organizations and other industry groups on matters concerned with system protection.
- Identifying the need for special studies and new documents, recommend action to the Reliability Coordinating Committee.

Key TFSP Reliability Assessment and Performance Analysis Deliverables:
$\checkmark$ Assessing proposed protection systems and special protection systems for compliance with NPCC Directory No. 4 and No. 7 criteria.
$\checkmark$ Reviewing and analyzing the performance of protection systems in power system disturbances and events, brought to the attention of the Task Force, inside as well as outside NPCC in accordance with Procedures for Task Force on System Protection

Review of Disturbances (Document C-30). Issuing recommendations for changes to NPCC Documents, as appropriate.
$\checkmark$ Develop a new NPCC Directory for Disturbance Monitoring Equipment for related criteria, guides and procedures.
$\checkmark$ Participate or serve as lead Task Force in the development and/or implementation of Regional Reliability Standards.
$\checkmark$ Providing support to the NERC Event Analysis process as required.
$\checkmark$ Participate in the ongoing development and submission of NPCC input into the development of related NERC Reliability Standards.
$\checkmark$ Conducting any follow-up to the bulk power system protection risk assessment as directed by the Reliability Coordinating Committee.
$\checkmark$ Through the SP-7 Working Group, monitor the review of protection system (including special protection system) mis-operations as they occurred in the NPCC Region and participation in providing the NPCC input for NERC Metric ALR4-1 on Protection Misoperations.
$\checkmark$ Monitor and review industry activities on the mitigation of the effects of SMD on protection systems. Report to RCC on any significant findings.
$\checkmark$ Review mitigations and/or progress reports for BPS Risk Reduction Implementation at each meeting and annually report to the RCC on the status of this implementation.
$\checkmark$ Participate in the development and submission of NPCC inputs/comments into the development of protection related NERC technical documents.
$\checkmark$ Review best practices from its members and industry to pull together design considerations for the new IEC 61850 protection implementation with the output being possible additions to NPCC Directory No. 4 and Directory No. 7.
$\checkmark$ Review NERC Events Analysis Lessons Learned for consideration in TFSP activities and processes.

## Task Force on Coordination of Operation

The NPCC Task Force on Coordination of Operation (TFCO) facilitates the coordination of operations among the NPCC Reliability Coordinator areas and adjacent NERC Regions to enhance the reliability of the bulk power system. In addition, the TFCO provides technical support regarding operating expertise to the NPCC Regional Standards Committee and the NPCC Compliance Committee as requested.

The activities of the NPCC TFCO include, but are not limited to:

- Conducting seasonal reviews of the overall reliability of the generation and transmission systems in NPCC, and coordinating these efforts with parallel assessments conducted by the NPCC Task Force on Coordination of Planning and by NERC. Reviewing the operational preparedness of NPCC and recommending possible actions to mitigate any potential problems identified for each operating period.
- Reviewing operations and system disturbances and providing any necessary follow-up, including the recommendation of remedial or mitigating actions.
- Facilitating the reliable operational integration of new bulk power system facilities.
- Coordinating the development of operating NPCC requirements and procedures affecting the reliability and operability of the bulk power system in coordination with, and as directed by, NERC and NPCC.
- Promoting and sponsoring inter-Balancing Authority Area and inter-Regional studies to enhance reliability and operational effectiveness of the bulk power system.
- Providing coordination of operating issues with other NPCC Task Forces and other Regions.
- Reviewing, and acting upon, NERC actions, motions and recommendations in relation to the operation of the power system.
- Formulating the position of the TFCO on NERC Standards, and providing this position to the NPCC Regional Standards Committee as appropriate.
- Providing assistance as requested by the NPCC Regional Standards Committee in the development of Regional Standards and Directories.
- Providing assistance as requested by the NPCC Compliance Committee in monitoring and coordinating the compliance efforts of the registered entities of NPCC.


## Key TFCO Reliability Assessment and Performance Analysis Deliverables:

$\checkmark$ Review and analyze the performance of Simultaneous Activation of Reserve implementation following an event to enhance the process. Manage the implementation of action items emanating from the NERC report, "High-Impact, Low-Frequency Event Risk to the North American Bulk Power System-June 2010," and its subsequent reports:
$>$ Severe Impact Resilience Severe Impact Resilience Task Force
> Geomagnetic Disturbance Task Force
> Cyber Attack Task Force
> Spare Equipment Database Task Force
> Smart Grid Task Force
$\checkmark$ Monitor the development of the NERC North American Synchro-Phasor Initiative in its effort to establish an effective control monitoring tool.
$\checkmark$ Provide assistance to the NPCC Regional Standards Committee in the second phase of the NPCC directories process.
$\checkmark$ Review NPCC Reliability Coordinator Area Restoration Plans.
$\checkmark$ Complete the NPCC 2015 summer and winter Operational Reliability Assessments.
$\checkmark$ Completion of the NERC 2015 Seasonal Reliability Assessments.
$\checkmark$ Review NERC Events Analysis Lessons Learned for consideration in TFCO activities and processes.
$\checkmark$ Support the implementation of the NERC Cyber Standards, as required.

## NPCC Regulatory/Governmental Affairs Advisory Group

The purpose of the NPCC Regulatory/Governmental Affairs Advisory Group is to promote NPCC interaction and coordination with Federal/State/Provincial governmental and/or regulatory agencies on a coordinated Regional basis, and identify and develop policy input for NPCC and Northeast Regional governmental and/or regulatory bodies.

The NPCC Governmental/Regulatory Affairs Advisory Group provides a forum where industry and governmental and/or regulatory representatives can exchange views and strive to develop consensus policy recommendations on reliability issues specific to the NPCC Region (Northeastern United States and Eastern Canada) and share actionable information among NPCC, NERC and other related governmental and/or regulatory agencies related to Regional energy and reliability matters.

Based on the portion of professional/technical staff time and other resources devoted to Reliability Assessment and Performance Analysis, NPCC estimates that it will expend 21 percent of its resources on these activities.

## Funding Sources and Requirements - Explanation of Increase (Decrease)

## Funding Sources (Other than ERO Assessments)

- U.S. Penalty Sanctions remitted from 7/1/13 through 6/30/14 reduce U.S. LSE designee assessments for 2015.


## Personnel Expenses

- NPCC anticipates no need to hire additional personnel in this program area in 2015.
- Salaries expense reflects implementation of recommendations of NPCC’s Management Development and Compensation Committee, which were based on an independent compensation study.
- Benefits expense decreased due to more staff opting out of company sponsored health insurance for superior coverage through prior employer or spouse.
- Retirement expense decreased due to transition of employees formerly accruing benefits under the defined benefit plan to receiving defined contribution benefits in 2015.


## Meeting and Travel Expenses

- While the amount of activity continues to increase in 2015, due to the volume of work described above, meeting expenses will be minimized to the extent possible due to continued efforts to keep costs down by holding meetings via conference calls and internet meetings, which are budgeted as a part of G\&A and then allocated to the direct programs through indirect expenses, conducting meetings at the NPCC offices or member facilities, as well as negotiating lower meeting space rental rates.


## Operating Expenses and Indirect Expenses

- Reliability Assessment and Performance Analysis contracts expense increase is related to implementation of the revised BES definition.
- NPCC total overhead expenses, such as office rent and office costs will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.


## Other Non-Operating Expenses

- None


## Fixed Asset Additions

- None


## Reliability Assessment and Performance Analysis Program

Funding sources and related expenses for the Reliability Assessment and Performance Analysis section of the 2015 business plan are shown in the table below.


## Training, Education, and Operator Certification Program

| Training, Education, and Operator Certification Program Resources <br> (in whole dollars) |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 2014 Budget | 2015 Budget | Increase <br> (Decrease) |
| Total FTEs | 0.10 | 0.10 | 0.00 |
| Direct Expenses | \$177,787 | \$180,222 | \$2,434 |
| Indirect Expenses | \$18,965 | \$19,154 | \$189 |
| Other Non-Operating Expenses | \$0 | \$0 | \$0 |
| Inc(Dec) in Fixed Assets | (\$897) | (\$366) | \$531 |
| Total Funding Requirement | \$195,855 | \$199,010 | \$3,154 |

## Program Scope and Functional Description

The NPCC Training, Education, and Operator Certification program supports NERC Rules of Procedure Section 900. The program provides education and training necessary to understand and operate the bulk electric system. The target audience of the program is bulk power system operating personnel - including system operations personnel, operations support personnel (engineering and information technology), supervisors and managers, and training personnel. This program also supports the administration of records necessary to maintain status as a NERC Continuing Education provider. NPCC staff training and development is incorporated within each respective program area.

## Training Program Background and Description

NPCC establishes and coordinates programs for system operator training relating to interReliability Coordinator area matters, criteria, terminology, standards and operating procedures and instructions. It develops and conducts training seminars, held twice yearly, at which potential operational problems for the coming season are discussed, the implementation of NPCC standards and procedures are discussed, significant disturbances are reviewed for lessons to be learned and table-top drills and communication and coordination exercises are conducted. The seminars promote camaraderie and better communication among system operators from the NPCC Reliability Coordinator Areas.

NPCC shares, evaluates and proposes new techniques and training aids as they become available; reviews opportunities to consolidate training among the NPCC Reliability Coordinators, which includes opportunities to share training material and training sessions and exchanges information on internal methods of system operator selection and training.

In addition, NPCC participates in the activities of the NERC Staff Training Group (STG). The main objective of the NERC STG is to coordinate the development of Regional Entity and NERC staff training and registered entity education materials to support and continually enhance reliability across North America for the benefit of all bulk electric system users, owners, and operators. The main focus of this group has been on NERC compliance auditor training.

## Funding Drivers and Reliability Benefits

- Provide two high-quality continuing education seminars for system operators

0 System operators participating in the Seminars get exposure to NPCC issues and current industry operations topics, review recent NPCC or major external disturbances, discuss projected conditions for the coming summer or winter peak season and participate in hands on "table top exercises" pertaining to system operation practices. PJM operators also attend and participate in these seminars.
0 Seminar attendees also receive Continuing Education Hours (CEHs) and each Balancing Authority Area utilizes the seminar content by including it in their internal training programs to provide CEHs to all system operators
o The seminars help to improve system operation coordination through better camaraderie among operators

- Review and revise the curriculum of the training seminars to better emphasize NERC standards, Regional Standards and business practices, NPCC wide-area operations and Regionally-specific criteria and procedures. ${ }^{37}$
- Enhance the system operator's awareness and knowledge of the standards, criteria and procedures they apply in real time operation. ${ }^{38}$
- Provide more sharing of new training approaches, exchange of information on internal methods of system operator selection, training material and training sessions.
o Enhance efficiency and cost savings in the training programs in the NPCC Balancing Authority Areas
- Provide a forum among NPCC Reliability Coordinator / Balancing Authority (RC / BA) Areas for sharing of approaches to meet the requirements of the NERC PER standards. The sharing of approaches used by some NPCC Areas to address the PER-005-1, Requirement 3.1 on Training using simulator technology has been especially valuable to CO-2 Working Group members.
- Determine what changes would be needed for the NPCC Reliability Coordinator / Balancing Authority Areas to meet proposed expanded Systematic Approach to Training (SAT) requirement for operations support staff in PER-005-2.


## 2015 Key Assumptions

NPCC will conduct two workshops in 2015, for NPCC Stakeholders, for the express purpose of providing the most current and applicable information related to the development of NERC and Regional Reliability Standards and the implementation of the Compliance Monitoring and Enforcement Program (CMEP). These workshops are specifically designed, primarily through the conduct of targeted breakout class room sessions and presentations on current industry related activities, to provide for the most efficient exchange of information between the NPCC Compliance and Standards Staff and the NPCC Stakeholders. Presentations in the past have been conducted by FERC, NERC and Stakeholder representatives in addition to NPCC Staff members. To supplement these workshops, NPCC is also considering expanding the use of on-

[^40]line webinars. These webinars will focus on a specific topic pertinent to developments related to compliance program implementation, standards development or technical topics.

NPCC also regularly conducts spring and fall System Operator Seminars. These seminars involve system operators from the NPCC Reliability Coordinator / Balancing Authority Areas and PJM. These will be held in early May and early November.

With the exception of meeting expenses, it is proposed that the NPCC resources to support Training and Education will remain virtually unchanged for the calendar year. In 2015, to be consistent with NERC and other Regional Entities, NPCC will charge for participation in NPCC workshops in an effort to defray some of the costs.

## 2015 Goals and Key Deliverables

- Prepare and conduct the spring and autumn NPCC System Operator Seminars
- Review approaches to reliability related-task definition, task instruction, and instruction tracking on an individual basis. Coordinate the effects of the PER-005-2 expanded SAT training requirements within the NPCC RC / BA Area programs.
- Expand the content of the Reliability Coordinator training programs, based on the new requirements generated by PER-005-2.
- Continue collaboration and sharing of the intended RC / BA approaches, experiences and materials to task identification and training development associated with NERC Standard PER-005-2.
- Create and expand the restricted-access NPCC repository of training resources and learning verification activities addressing fundamental power system topics, training methods and operation procedure training exercises, which may be shared as elements of operator training in compliance with NERC Standard PER-005, "System Personnel Training".
- Participate in NERC Staff Training Group activities and provide NPCC input to the development of training policies by this group.

Based on the portion of professional/technical staff time and other resources devoted to training, education, and operator certification, NPCC estimates that it will expend 1 percent of its resources on this activity.

## Funding Sources and Requirements - Explanation of Increase (Decrease)

## Funding Sources (Other than ERO Assessments)

- U.S. Penalty Sanctions remitted from 7/1/13 through 6/30/14 reduce U.S. LSE designee assessments for 2015.


## Personnel Expenses

- NPCC anticipates no need to hire additional personnel in this program area in 2015.
- Salaries expense reflects implementation of recommendations of NPCC's Management Development and Compensation Committee, which were based on an independent compensation study.
- Benefits expense decreased due to more staff opting out of company sponsored health insurance for superior coverage through prior employer or spouse.
- Retirement expense decreased due to transition of employees formerly accruing benefits under the defined benefit plan to receiving defined contribution benefits in 2015.


## Operating Expenses and Indirect Expenses

- NPCC total overhead expenses, such as office rent and office costs will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.


## Other Non-Operating Expenses

- None


## Fixed Asset Additions

- None


## Training, Education, and Operator Certification Program

Funding sources and related expenses for the training, education, and operator certification section of the 2015 business plan are shown in the table below.


## Situation Awareness and Infrastructure Security Program

| Situation Awareness and Infrastructure Security Program Resources <br> (in whole dollars) |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 2014 Budget | 2015 Budget | Increase <br> (Decrease) |
| Total FTEs | 3.00 | 3.00 | 0.00 |
| Direct Expenses | \$922,070 | \$937,689 | \$15,619 |
| Indirect Expenses | \$568,962 | \$574,629 | \$5,667 |
| Other Non-Operating Expenses | \$0 | \$0 | \$0 |
| Inc(Dec) in Fixed Assets | $(\$ 26,920)$ | $(\$ 10,986)$ | \$15,935 |
| Total Funding Requirement | \$1,464,111 | \$1,501,332 | \$37,221 |

## Program Scope and Functional Description

The Situation Awareness and Infrastructure Security Program is the combination of near real time awareness of conditions on the bulk power system with the programs necessary to increase the physical and cyber security of the electricity infrastructure, including the operation and maintenance of tools and other support services for the benefit of Reliability Coordinators and the system operators within the registered entities. Maintaining the real-time awareness of conditions on the interconnected bulk power systems by the NPCC Reliability Coordinator is critical to maintaining reliable operation within NPCC, including the communication of information concerning system conditions and abnormal events among the neighboring system operators responsible for the reliable operation of the bulk power systems. When a disturbance does occur, it is critical to use the event as a learning opportunity and provide a forum for the active coordination of reliability and operation among the NPCC Reliability Coordinator areas and neighboring NERC Regions to enhance the reliability of the interconnected bulk power system through the lessons to be learned which can be gleaned from such an event.

## Event Analysis Program ${ }^{39}$

NERC and the industry pursue three avenues in the analysis of a disturbance: the identification of lessons to be learned, a formal cause code analysis and a review of applicable standards.

The Event Analysis Program recognizes that many events which occur on the bulk power system beyond the routine reporting requirements previously in place can have varying levels of significance to the electric system, providing otherwise unrealized lessons to be learned from these events and the trending of such events to identify possible reliability concerns. By integrating a "bottom-up" approach to a disturbance review within the framework of the NERC Event Analysis Program, consistency, comparability, flexibility and timeliness in the event analysis process will be promoted by NPCC, the registered entities and NERC in a collaborative initiative. Upon the identification of an event, the goal of the Event Analysis Program is to:

- identify what transpired;
- categorize the event within the NERC Event Analysis Program;

[^41]- establish the sequence of events;
- understand the essential root causes of the event;
- identify recommendations or corrective actions; and
- develop and disseminate to the industry, lessons to be learned so that the operational reliability of the bulk power system can be further enhanced.

In assessing any system event, it is recognized that, if the timely dissemination of lessons learned from an event or disturbance is to be realized, any potential compliance implications associated with an event must be addressed and dismissed. Throughout an event analysis effort, to make this process successful and complete, and to solidify the "bottom-up" approach, registered entities are encouraged to establish a liaison between the event analysis and compliance functions internal to the registered entity during the event analysis process. This serves to facilitate the development of a registered entity compliance self-assessment report which will perform a sufficiency review of the reliability standards deemed applicable to the event, assisting in the self-reporting of possible violations should any be discovered.

To complete this effort, the entity, the Region and NERC staff collaborate to assess the NERC Event Analysis Report and perform a formal cause code analysis, identifying a root cause and complementing any lessons learned gathered from the disturbance.

The adoption by NERC of the Event Analysis Program brings clarity and certainty about what system events are relevant to analyze and to what level of detail, targeting potential vulnerabilities to the reliability of the bulk power system for detailed and in depth analysis; only concise and succinct reviews are desired for more minor events. It also delineates the expectations of roles and responsibilities of the registered entities, NPCC and NERC in a uniform review of system disturbances by the industry, and, ultimately, the program promotes the timely development and dissemination of valuable lessons learned to the industry. The identification and tracking of emerging common elements in system events will further distinguish trends which may be of concern to reliability. By rigorously pursuing the lesser events on the system and learning from these disturbances, the larger event can be avoided or mitigated.

NPCC Staff works step-by-step with the registered entity in the total event analysis process, permitting the entity to assume the primary role in the initial analysis, the development of lessons learned which may benefit the industry and the Standards sufficiency review.

## NERC Alert Process ${ }^{40}$

NPCC Staff works with the registered entities to appropriately respond to the NERC Alert system, a process through which notifications of potential threats to electric reliability are disseminated to the industry with the expectations placed on the entity proportional to the severity of the Alert being issued.

NPCC Staff is also working closely with the NERC Staff to incorporate greater efficiencies, industry input and precision into the NERC proposal for a more streamlined NERC Alert process which can disseminate critical information to the appropriate Subject Matter Expert within the organization who can promptly act on the alert.

[^42]Operational Status ${ }^{41}$
On an ongoing, but non-real time basis, NPCC monitors the operational status of the bulk power system and coordinates normal and pre-emergency communication, awareness and assistance in addition to the same during an emergency among the Reliability Coordinators within NPCC and its neighboring RCs: the New Brunswick Power Corporation, Hydro-Québec TransÉnergie, the ISO New England, Inc., the New York ISO and the Independent Electricity System Operator in Ontario. The industry is notified of significant bulk power system events that have occurred in one Reliability Coordinator Area, and which have the potential to impact reliability in other NPCC Reliability Coordinator Areas or Regions external to NPCC. These events include contingencies on the bulk power system, potential shortfalls of operating reserve, operating problems, potential security threats and potential threats or disruptions to the cyber systems.

The "NPCC Emergency Preparedness Conference Call Procedures" provide a mechanism that enables the Reliability Coordinator in NPCC, and, as circumstances may require, their counterparts in neighboring Regions, to rapidly communicate the status of current operating conditions, to facilitate the procurement of assistance during emergency conditions and to identify potential physical or cyber threats to the system.

Items of particular concern that can be discussed during the calls may include, but are not limited to, the following: anticipated weather conditions critical to the system or systems experiencing or projecting resource deficiencies; load forecast; largest first and second contingencies; potential need for emergency transfers; operating reserve requirements and expected available operating reserve capacity deficiencies; potential fuel shortages or potential fuel supply disruptions which could lead to energy shortfalls; identified or projected voltage conditions; status of short term transactions; additional capability available within four hours and additional capability available within twelve hours; generator outages; significant transmission outages; expected transfer limits and limiting elements; anticipated implementation of NERC Transmission Loading Relief (TLR); changes in the status of relay protection systems; arming of special protection systems not normally armed; and/or the application of abnormal operating procedures.

NPCC has also established a daily conference call to serve as a complement to the NPCC Emergency Preparedness Conference Call. The participants of the call are the Reliability Coordinators within NPCC and its neighboring RCs, the Midwest ISO and PJM. The conference call is implemented through a bridge, the initiation of the call quickly ringing all pre-selected telephones simultaneously. The goal of the call is to alert all Reliability Coordinators of emerging problems. If no system difficulties are anticipated for the day, no unnecessary information is to be discussed. Subjects for discussion are limited to credible events which could impact the ability of an entity to serve its load and meet its operating reserve obligations or would impose a burden to the interconnection, including the following: Projected Load; Adverse Weather; Operating Reserve; Generation; Transmission; and Sabotage. If conditions worsen in the course of the day, the NPCC Emergency Preparedness Conference Call will be implemented.

NPCC monitors the status of the bulk power system through the NERC Situational AwarenessFERC, NERC, Regions (SAFNR) initiative, a near real-time operating display for the United States portion of the Reliability Coordinators footprints of North America. Transmission voltage

[^43]levels of 230 kV and above are displayed, and the tool provides the ability to "drill down" to detailed bus information.

To ensure the capability for continued voice communications among NPCC and its Reliability Coordinators, a satellite telephone network was also established, and it is tested on a monthly basis. This back-up communications system will function in the event of a collapse of the Public Switched Telephone Network (PSTN), and cross-border voice communications can still be maintained among the Canadian Reliability Coordinators of NPCC and the Reliability Coordinators in the United States.

## Critical Infrastructure Objectives

NPCC's critical infrastructure objectives are defined within the scope of the NPCC Task Force on Infrastructure Security \& Technology, (TFIST) and include, but are not confined to:

- Providing a forum for NPCC review of proposed and posted documents from the NERC Critical Infrastructure Protection Committee (CIPC)
- Representing and advocating NPCC's position in the activities of NERC groups involved in the development and/or implementation of physical and cyber security

NPCC's 2015 critical infrastructure goals and objectives, as identified by the 2014-2015 Work Plan of the Task Force on Infrastructure Security and Technology include, but are not confined to:

- Oversee the implementation of version 5 of the CIP Standards
- Monitor the Homeland Security Information Network (HSIN), ES-ISAC, Critical Information Protection Information Sharing (CIPIS), NERC Alerts and Canadian Information Sharing and share information with CO-8 ${ }^{42}$
- Coordinate Cyber Protection activities, discussions and hold workshops as may be required to maintain Cyber Security of BES Cyber Assets. ${ }^{43}$
- Provide continued support and participation in NERC's Critical Infrastructure Protection Committee (CIPC) ${ }^{44}$
- Review and submit comments on NERC proposed Reliability Standards, modified Reliability Standards, proposed Guidelines and modified Guidelines related to Infrastructure Security and Technology
- Keep current on all governmental agencies regarding applicable security recommendations and requirements, and other applicable security and reliability recommendations and keep the RCC and its committees appropriately informed, e.g. Sector Specific Plan.
- Develop and maintain levels of expertise in those areas of concern to the task force through activities such as periodic workshop presentations, seminars, and meetings, open to the general NPCC membership ${ }^{45}$.
- Regarding the Cross Border Emergency Telecommunications recommendation
o Continue to annually report to RCC on this testing

[^44]o Continue to support CO-8's monthly testing

- Assess the telecommunications industry's desire to convert Frame Relay customers to Multiprotocol Label Switching (MPLS) and potentially provide recommendations to RCC


## System Operations Security Objectives

NPCC's system operations security objectives are defined within the scope of the NPCC Task Force on Coordination of Operation (TFCO) and include, but are not confined to:

- Coordinating inter-Regional pre-emergency actions in the event of a threat to the security of the Northeastern North American bulk power supply system ${ }^{46}$
- Assisting in the development of real time operating tools assuring cyber security concerns are addressed ${ }^{47}$

NPCC's 2015 operational situation awareness goals and objectives, as identified by the 20142015 Work Plan of the NPCC Task Force on Coordination of Operation (TFCO) include, but are not confined to:

- Continue to monitor the reliable implementation of version 5 of the Cyber Standards. ${ }^{48}$
- Work directly with applicable NPCC Task Forces to provide an in depth assessment of Lessons Learned unique to the NPCC members and NPCC criteria.


## 2015 Key Assumptions

- The monitoring of Lessons Learned will be a major focus of NERC in 2015.
- Critical infrastructure protection will fully integrate the requirements of version 5 of the Cyber Standards in 2015.


## 2015 Goals and Key Deliverables

- Continue to monitor the reliable implementation of version 5 of the Cyber Standards.
- Work directly with applicable NPCC Task Forces to provide an in depth assessment of Lessons Learned unique to the NPCC members and NPCC criteria.
- Establish a unique NPCC Event Analysis web site to post NPCC Lessons Learned.
- Contribute to the reduction of Category 3 events and no Category 4 or 5 events in NPCC- by disseminating to the RCC compiled information on NPCC Region specific, as well as industry wide, event related causal analysis and analysis of Lessons Learned. ${ }^{49}$

Based on the portion of professional/technical staff time and other resources devoted to situation awareness and infrastructure security, NPCC estimates that it will expend 10 percent of its resources on this activity.

[^45]
## Funding Sources and Requirements - Explanation of Increase (Decrease)

## Funding Sources (Other than ERO Assessments)

- U.S. Penalty Sanctions remitted from 7/1/13 through 6/30/14 reduce U.S. LSE designee assessments for 2015.


## Personnel Expenses

- NPCC anticipates no need to hire additional personnel in this program area in 2015.
- Salaries expense relects implementation of recommendations of NPCC’s Management Development and Compensation Committee, which were based on an independent compensation study.
- Benefits expense decreased due to more staff opting out of company sponsored health insurance for superior coverage through prior employer or spouse.
- Retirement expense decreased due to transition of employees formerly accruing benefits under the defined benefit plan to receiving defined contribution benefits in 2015.


## Operating Expenses and Indirect Expenses

- NPCC total overhead expenses, such as office rent and office costs will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.
- Consultants and contracts expense increase in support of NPCC's efforts to assess and improve system frequency and generator governor response.


## Other Non-Operating Expenses

- None


## Fixed Asset Additions

- None


## Situation Awareness and Infrastructure Security Program

Funding sources and related expenses for the situation awareness and infrastructure security section of the 2015 business plan are shown in the table below.

| Statement of Activities and Capital Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Situation Awareness and Infrastructure Security |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | ance |
|  |  |  |  |  |  | tion |  |  |  | udget |
|  |  | 014 |  | 14 |  |  |  | 15 |  | Budget |
|  |  | dget |  | ction |  |  |  | dget |  | Inder) |
| Funding |  |  |  |  |  |  |  |  |  |  |
| ERO Funding |  |  |  |  |  |  |  |  |  |  |
| ERO Assessments | \$ | 1,447,636 | \$ | 1,447,636 | \$ | - | \$ | 1,470,051 | \$ | 22,415 |
| Penalty Sanctions |  | 16,475 |  | 16,475 |  | - |  | 31,281 |  | 14,806 |
| Total ERO Funding | \$ | 1,464,111 | \$ | 1,464,111 | \$ | - | \$ | 1,501,332 | \$ | 37,221 |
|  |  |  |  |  |  |  |  |  |  |  |
| Membership Dues |  | - |  | - |  | - |  | - |  | - |
| Testing Fees |  | - |  | - |  | - |  | - |  | - |
| Services \& Software |  | - |  | - |  | - |  | - |  | - |
| Workshops |  | - |  | - |  | - |  | - |  | - |
| Interest |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Total Funding (A) | \$ | 1,464,111 | \$ | 1,464,111 | \$ | - | \$ | 1,501,332 | \$ | 37,221 |
|  |  |  |  |  |  |  |  |  |  |  |
| Expenses |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 522,672 | \$ | 522,672 | \$ | - | \$ | 541,258 | \$ | 18,586 |
| Payroll Taxes |  | 32,961 |  | 32,961 |  | - |  | 32,811 |  | (150) |
| Benefits |  | 88,851 |  | 88,851 |  | - |  | 80,801 |  | $(8,049)$ |
| Retirement Costs |  | 117,586 |  | 117,586 |  | - |  | 107,819 |  | $(9,767)$ |
| Total Personnel Expenses | \$ | 762,070 | \$ | 762,070 | \$ | - | \$ | 762,689 | \$ | 619 |
|  |  |  |  |  |  |  |  |  |  |  |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 25,000 | \$ | 25,000 | \$ | - | \$ | 15,000 | \$ | $(10,000)$ |
| Travel |  | 60,000 |  | 60,000 |  | - |  | 60,000 |  | - |
| Conference Calls |  | - |  | - |  | - |  | - |  | - |
| Total Meeting Expenses | \$ | 85,000 | \$ | 85,000 | \$ | - | \$ | 75,000 | \$ | $(10,000)$ |
|  |  |  |  |  |  |  |  |  |  |  |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | 75,000 | \$ | 75,000 | \$ | - | \$ | 100,000 | \$ | 25,000 |
| Office Rent |  | - |  | - |  | - |  | - |  | - |
| Office Costs |  | - |  | - |  | - |  | - |  | - |
| Professional Services |  | - |  | - |  | - |  | - |  | - |
| Computer \& Equipment Leases |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Depreciation |  | - |  | - |  | - |  | - |  | - |
| Total Operating Expenses | \$ | 75,000 | \$ | 75,000 | \$ | - | \$ | 100,000 | \$ | 25,000 |
|  |  |  |  |  |  |  |  |  |  |  |
| Total Direct Expenses | \$ | 922,070 | \$ | 922,070 | \$ | - | \$ | 937,689 | \$ | 15,619 |
|  |  |  |  |  |  |  |  |  |  |  |
| Indirect Expenses | \$ | 568,962 | \$ | 568,962 | \$ | - | \$ | 574,629 | \$ | 5,667 |
|  |  |  |  |  |  |  |  |  |  |  |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
|  |  |  |  |  |  |  |  |  |  |  |
| Total Expenses (B) | \$ | 1,491,031 | \$ | 1,491,031 | \$ | - | \$ | 1,512,318 | \$ | 21,286 |
|  |  |  |  |  |  |  |  |  |  |  |
| Change in Assets | \$ | $(26,920)$ | \$ | $(26,920)$ | \$ | - | \$ | $(10,986)$ | \$ | 15,935 |
|  |  |  |  |  |  |  |  |  |  |  |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |
| Depreciation | \$ | - |  | - | \$ | - | \$ | - | \$ | - |
| Computer \& Software CapEx |  | - |  | - |  | - |  | - |  | - |
| Furniture \& Fixtures CapEx |  | - |  | - |  | - |  | - |  | - |
| Equipment CapEx |  | - |  | - |  | - |  | - |  | - |
| Leasehold Improvements |  | - |  | - |  | - |  | - |  | - |
|  |  |  |  |  |  |  |  |  |  |  |
| Allocation of Fixed Assets |  | $(26,920)$ |  | $(26,920)$ |  | - |  | $(10,986)$ |  | 15,935 |
|  |  |  |  |  |  |  |  |  |  |  |
| Inc(Dec) in Fixed Assets (C) |  | $(26,920)$ |  | $(26,920)$ |  | - |  | $(10,986)$ |  | 15,935 |
|  |  |  |  |  |  |  |  |  |  |  |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) |  | 1,464,111 |  | 1,464,111 |  | - |  | 1,501,332 |  | 37,221 |
| TOTAL CHANGE IN WORKING CAPITAL (=A-B-C) |  |  |  |  |  |  |  |  |  |  |
|  | \$ | (0) | \$ | (0) | \$ | - | \$ | (0) | \$ | (0) |

## Administrative Services

| $\begin{array}{c}\text { Administrative Services Program Resources } \\ \text { (in whole dollars) }\end{array}$ |  |  |  |
| :--- | :---: | :---: | :---: |
|  | 2014 Budget |  |  | 2015 Budget \(\left.\begin{array}{c}Increase <br>

(Decrease)\end{array}\right]\)

## Program Scope and Functional Description

Administrative services support the previously identified five program areas of: reliability standards; compliance monitoring and enforcement and organization registration and certification; training, education, and operator certification; reliability assessment and performance analysis; and situation awareness and infrastructure security. Administrative services consist of: technical committees and members' forums; general and administrative; legal and regulatory; information technology; human resources; and finance and accounting.

## Methodology for Allocation of Administrative Services Expenses to Programs

NPCC total overhead expenses, such as office rent and office costs, will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.

## Funding Sources and Requirements - Explanation of Increase (Decrease)

## Personnel Expenses

- NPCC anticipates no need to hire additional personnel in this program area in 2015.
- Salaries expense reflects implementation of recommendations of NPCC's Management Development and Compensation Committee, which were based on an independent compensation study.
- Benefits expense decreased due to more staff opting out of company sponsored health insurance for superior coverage through prior employer or spouse.


## Administrative Services

Funding sources and related expenses for the Administrative Services section of the 2015 business plan are shown in the table below.

| Statement of Activities and Capital Expenditures 2014 Budget \& Projection, and 2015 Budget |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ADMINISTRATIVE SERVICES |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | Variance |  |  |  | ance |
|  |  |  |  |  |  | 2014 Projection |  |  |  | Budget |
|  |  | 14 |  | 14 |  | v 2014 Budget |  | 15 |  | Budget |
|  |  | dget |  | ection |  | Over(Under) |  | dget |  | Under) |
| Funding |  |  |  |  |  |  |  |  |  |  |
| ERO Funding |  |  |  |  |  |  |  |  |  |  |
| ERO Assessments | \$ | $(300,126)$ | \$ | $(300,126)$ |  | \$ | \$ | $(355,161)$ | \$ | $(55,035)$ |
| Penalty Sanctions |  |  |  | - |  | - |  | - |  | - |
| Total ERO Funding | \$ | $(300,126)$ | \$ | $(300,126)$ |  | \$ | \$ | $(355,161)$ | \$ | $(55,035)$ |
|  |  |  |  |  |  |  |  |  |  |  |
| Membership Dues |  | - |  | - |  | - |  | - |  | - |
| Testing Fees |  | - |  | - |  | - |  | - |  | - |
| Services \& Software |  | - |  | - |  | - |  | - |  | - |
| Workshops |  | - |  | - |  | - |  | - |  | - |
| Interest |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | - |  | - |  | - |  | - |  | - |
| Total Funding (A) | \$ | $(300,126)$ | \$ | $(300,126)$ |  | \$ | \$ | $(355,161)$ | \$ | $(55,035)$ |
|  |  |  |  |  |  |  |  |  |  |  |
| Expenses |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 1,676,735 | \$ | 1,676,735 |  | \$ | \$ | 1,769,318 | \$ | 92,583 |
| Payroll Taxes |  | 96,083 |  | 96,083 |  | - |  | 97,804 |  | 1,722 |
| Benefits |  | 442,256 |  | 442,256 |  | - |  | 402,307 |  | $(39,949)$ |
| Retirement Costs |  | 425,270 |  | 425,270 |  | - |  | 435,638 |  | 10,368 |
| Total Personnel Expenses | \$ | 2,640,344 | \$ | 2,640,344 |  | \$ | \$ | 2,705,068 | \$ | 64,724 |
|  |  |  |  |  |  |  |  |  |  |  |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 110,000 | \$ | 110,000 | \$ | \$ | \$ | 120,000 | \$ | 10,000 |
| Travel |  | 155,000 |  | 155,000 |  | - |  | 155,000 |  | - |
| Conference Calls |  | 77,000 |  | 77,000 |  | - |  | 45,000 |  | $(32,000)$ |
| Total Meeting Expenses | \$ | 342,000 | \$ | 342,000 | \$ | \$ | \$ | 320,000 | \$ | $(22,000)$ |
|  |  |  |  |  |  |  |  |  |  |  |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | 150,000 | \$ | 150,000 |  | \$ | \$ | 124,000 | \$ | $(26,000)$ |
| Office Rent |  | 737,272 |  | 737,272 |  | - |  | 751,500 |  | 14,228 |
| Office Costs |  | 523,500 |  | 523,500 |  | - |  | 578,700 |  | 55,200 |
| Professional Services |  | 966,500 |  | 966,500 |  | - |  | 1,025,000 |  | 58,500 |
| Computer \& Equipment Leases |  | - |  | - |  | - |  | - |  | - |
| Miscellaneous |  | 80,000 |  | 80,000 |  | - |  | 40,000 |  | $(40,000)$ |
| Depreciation |  | 250,000 |  | 250,000 |  | - |  | 202,019 |  | $(47,981)$ |
| Total Operating Expenses | \$ | 2,707,272 | \$ | 2,707,272 | \$ | \$ | \$ | 2,721,219 | \$ | 13,947 |
|  |  |  |  |  |  |  |  |  |  |  |
| Total Direct Expenses | \$ | 5,689,616 | \$ | 5,689,616 |  | \$ | \$ | 5,746,287 | \$ | 56,671 |
|  |  |  |  |  |  |  |  |  |  |  |
| Indirect Expenses | \$ | $(5,689,616)$ | \$ | (5,689,616) | \$ | \$ | \$ | $(5,746,287)$ | \$ | $(56,671)$ |
|  |  |  |  |  |  |  |  |  |  |  |
| Other Non-Operating Expenses | \$ | - | \$ | - |  | \$ | \$ | - | \$ | - |
|  |  |  |  |  |  |  |  |  |  |  |
| Total Expenses (B) | \$ | - | \$ | - |  | \$ | \$ | (0) | \$ | (0) |
|  |  |  |  |  |  |  |  |  |  |  |
| Change in Assets | \$ | $(300,126)$ | \$ | $(300,126)$ |  | \$ | \$ | $(355,161)$ | \$ | $(55,035)$ |
|  |  |  |  |  |  |  |  |  |  |  |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |
| Depreciation |  | $(250,000)$ |  | $(250,000)$ |  | \$ |  | $(202,019)$ | \$ | 47,981 |
| Computer \& Software CapEx |  | - |  | - |  | - |  | 100,000 |  | 100,000 |
| Furniture \& Fixtures CapEx |  | - |  | - |  | - |  | - |  | - |
| Equipment CapEx |  | - |  | - |  | - |  | - |  | - |
| Leasehold Improvements |  | - |  | - |  | - |  | - |  | - |
|  |  |  |  |  |  |  |  |  |  |  |
| Allocation of Fixed Assets |  | 250,000 |  | 250,000 |  | - |  | 102,019 |  | $(147,981)$ |
|  |  |  |  |  |  |  |  |  |  |  |
| $\operatorname{Inc}(\mathrm{Dec})$ in Fixed Assets (C) |  | - |  | - |  | - |  | - |  | - |
|  |  |  |  |  |  |  |  |  |  |  |
| TOTAL BUDGET ( $=$ B+C) |  | - |  | - |  | - |  | (0) |  | (0) |
| TOTAL CHANGE IN WORKING CAPITAL (=A-B-C) | \$ | $(300,126)$ | \$ | $(300,126)$ |  | \$ | \$ | (355,161) | \$ | $(55,035)$ |

## Technical Committees and Member Forums

| Technical Committees and Members Forum Program Resources |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| (in whole dollars) |  | Increase <br> (Decrease) |  |  |
|  | 2014 Budget |  |  |  |

## Program Scope and Functional Description

The success of the NPCC programs depends on the active and direct volunteerism and participation of its members. The stakeholders are the source of expertise in the industry. To promote the reliable and efficient operation of the interconnected bulk power systems in Northeastern North America, NPCC invites high level policy makers from Federal, Provincial and State regulatory and/or governmental authorities and senior executives within NPCC and NERC to identify and discuss emerging issues related to the reliability of the NPCC Region.

## 2015 Key Assumptions

- NPCC's standing committee and subgroup structure for effective stakeholder involvement will continue in 2015
- NPCC will continue to utilize methods to encourage active involvement in its Regional programs that require less stakeholder travel and face-to-face meetings, as the economy improves in 2015
- NPCC will continue to invest in technology and innovation to allow efficient collaboration on technical issues related to reliability


## 2015 Goals and Key Deliverables

The 2015 NPCC General Meeting provides an opportunity for NPCC Members to meet high level policy makers from Federal, Provincial and State regulatory and/or governmental authorities and senior NERC and NPCC executives to discuss topics related to the reliable planning and operation of the power system, including consideration of emerging reliability, critical infrastructure and environmental issues.

## 2015 Public Information Committee Goals and Objectives

The objective of the NPCC Public Information Committee is to highlight and summarize NPCC activities and accomplishments in the past year, disseminate and coordinate the appropriate release of information to the media, respond to related requests for information, and coordinate with related NPCC Area, NERC media and public information activities. Activities anticipated for include, but are not limited to:

- Conducting the Media Event - release of the Summer 2015 NPCC Reliability Assessment
- Participation in NERC Regional communication initiatives:
- Regional communications teleconferences as required
- Coordination of Emergency or Blackout communications plans
- Coordination with other NERC activities as required (i.e., situation awareness, event analysis, reliability assessments, etc.)


## Funding Sources and Requirements - Explanation of Increase (Decrease)

## Funding Sources (Other than ERO Assessments)

- Not applicable


## Operating Expenses and Indirect Expenses

- NPCC total overhead expenses, such as office rent and office costs will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.


## Other Non-Operating Expenses

- None


## Fixed Asset Additions

- None


## General and Administrative

| General and Administrative Program Resources |  |  |  |
| :--- | :---: | :---: | :---: |
| (in whole dollars) |  |  |  |
|  | 2014 Budget | 2015 Budget | Increase |
| (Decrease) |  |  |  |
| Total FTEs | 2.50 | 2.50 | 0.00 |
| Total Direct Expenses | $\$ 3,293,356$ | $\$ 3,209,290$ | $(\$ 84,066)$ |
| Other Non-Operating Expenses | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Inc(Dec) in Fixed Assets | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Working Capital Requirement | $(\$ 300,126)$ | $(\$ 355,161)$ | $(\$ 55,035)$ |

## Program Scope and Functional Description

The NPCC general and administrative function provides executive management of the corporation, management of NPCC office, and other administrative support programs.

NPCC total overhead expenses, such as office rent and office costs, will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.

## Funding Requirements - Explanation of Increase (Decrease)

## Funding Sources (Other than ERO Assessments)

- Not applicable


## Operating Expenses and Indirect Expenses

- NPCC total overhead expenses, such as office rent and office costs will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.


## Other Non-Operating Expenses

- None


## Fixed Asset Additions

- None


## Legal and Regulatory

| Legal and Regulatory Program Resources <br> (in whole dollars) |  |  |  |
| :--- | :---: | :---: | :---: |
|  | 2014 Budget | 2015 Budget | Increase <br> (Decrease) |
| Total FTEs | 1.00 | 1.00 | 0.00 |
| Total Direct Expenses | $\$ 621,004$ | $\$ 628,183$ | $\$ 7,179$ |
| Other Non-Operating Expenses | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Inc(Dec) in Fixed Assets | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Working Capital Requirement | $\$ 0$ | $\$ 0$ | $\$ 0$ |

## Program Scope and Functional Description

NPCC's professional legal services provide counsel to the President and CEO, Board of Directors, Vice President and COO, Treasurer and staff on a wide range of legal and regulatory matters including legislation, corporate law, code of conduct, confidentiality, governance, employment law, tax matters, contract law and other areas affecting NPCC. Regulatory counsel provides legal advice to advance significant corporate policy and strategic planning initiatives and also provides legal support to other program areas on matters arising in connection with the performance of NPCC's delegated functions. Regulatory counsel drafts agreements and pleadings and provides interpretations of relevant statutes, regulations, court opinions, and regulatory decisions of FERC, state agencies and provincial authorities. Outside counsel, as necessary, reviews items filed with the governmental agencies for legal sufficiency, maintains relationships with U.S. and Canadian jurisdictions and provides contract review.

## Funding Sources (Other than ERO Assessments)

- Not applicable


## Operating Expenses and Indirect Expenses

- NPCC total overhead expenses, such as office rent and office costs will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.


## Other Non-Operating Expenses

- None


## Fixed Asset Additions

- None


## Information Technology

| Information Technology Program Resources (in whole dollars) |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 2014 Budget | 2015 Budget | Increase <br> (Decrease) |
| Total FTEs | 3.00 | 3.00 | 0.00 |
| Total Direct Expenses | \$1,037,624 | \$1,111,674 | \$74,050 |
| Other Non-Operating Expenses | \$0 | \$0 | \$0 |
| Inc(Dec) in Fixed Assets | \$0 | \$0 | \$0 |
| Working Capital Requirement | \$0 | \$0 | \$0 |

## Program Scope and Functional Description

NPCC's Information Technology services ensure information assets and the environment in which they operate are secure and in conformance to NPCC IT Policies and Procedures. NPCC maintains an offsite backup server for continuity of essential operations in the event that its primary location is unavailable.

## 2015 Key Assumptions

- Continue to develop and maintain the compliance portal through collaboration with other Regions and NERC (CUG).
- Achieve greater consistency with the other Regions and NERC by participating in the NERC IT Steering Group (ITSG) and deriving the efficiencies and cost savings which may result from the projects of this group. ${ }^{50}$
o The ERO EMG identifies and prioritizes ERO-wide applications to be developed under a PMO housed at NERC. The NERC IT budget does not supplant the Regional Entities’ need for IT expenditures for specific regional projects, but to the extent that agreed-upon ERO Enterprise applications provide greater efficiencies, there should not be any unnecessary, redundant expenditures at the regional level.
- Support the Event Analysis program through continued participation in the tools used for the tracking and analysis of system events. ${ }^{51}$
- Support the Bulk Electric System Exception Process "BEP" to enable and facilitate tracking and processing of exceptions submitted. ${ }^{52}$ Maintenance of the BESNET support services such as updates, patching, coordinating issues with NERC.
- Support Cyber Security Reviews done by compliance to provide advisory role during those reviews.

[^46]
## 2015 Goals and Key Deliverables

Responsibilities encompass a variety of complex technical, administrative, and supervisory work in the development, installation, and maintenance of information technology systems. IT goals include, but are not limited to:

- Create an information security program and environment aimed at reducing breach of security risks
- Determine long-term software and systems needs and hardware acquisitions
- Develop and implement information security standards and procedures
- Ensure all information systems are functional and secure, and that all applications running on those systems meet business requirements for performance, availability, and security
- Plan and implement organization-wide information systems, services, and network facilities, including local area networks, wide-area networks, and peripheral systems
- Provide outreach and education to NPCC members in IT best practices
- Continually improve Disaster Recovery policies and practices to ensure continuity of service


## Funding Sources and Requirements - Explanation of Increase (Decrease)

## Funding Sources (Other than ERO Assessments)

- Not applicable


## Operating Expenses and Indirect Expenses

- NPCC total overhead expenses, such as office rent and office costs will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.


## Other Non-Operating Expenses

- None


## Fixed Asset Additions

- None


## Human Resources

| Human Resources Program Resources <br> (in whole dollars) |  |  |  |
| :--- | :---: | :---: | :---: |
|  | 2014 Budget | 2015 Budget | Increase |
| (Decrease) |  |  |  |
| Total FTEs | 1.00 | 1.00 | 0.00 |
| Total Direct Expenses | $\$ 178,931$ | $\$ 183,817$ | $\$ 4,886$ |
| Other Non-Operating Expenses | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Inc(Dec) in Fixed Assets | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Working Capital Requirement | $\$ 0$ | $\$ 0$ | $\$ 0$ |

## Program Scope and Functional Description

NPCC has assembled an exceptional team of highly qualified employees to carry out the activities of NPCC. The human resources function, in adherence with applicable federal and state laws, designs, plans, and implements human resources policies and procedures, including staffing, compensation, benefits, employee relations, and training and development.

An enhanced employee time tracking system was implemented in 2013 based on FERC audit recommendations. Employee time tracking and reporting is also handled by the human resources program area.

## Funding Sources (Other than ERO Assessments)

- Not applicable


## Operating Expenses and Indirect Expenses

- NPCC total overhead expenses, such as office rent and office costs will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.

Other Non-Operating Expenses

- None


## Fixed Asset Additions

- None


## Accounting and Finance

| Accounting and Finance Program Resources <br> (in whole dollars) |  |  |  |
| :--- | :---: | :---: | :---: |
|  | 2014 Budget | 2015 Budget | Increase <br> (Decrease) |
| Total FTEs | 1.00 | 1.00 | 0.00 |
| Total Direct Expenses | $\$ 482,991$ | $\$ 494,544$ | $\$ 11,554$ |
| Other Non-Operating Expenses | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Inc(Dec) in Fixed Assets | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Working Capital Requirement | $\$ 0$ | $\$ 0$ | $\$ 0$ |

## Program Scope and Functional Description

The accounting and finance function directs the overall financial plans and accounting practices of the organization; oversees treasury, accounting, budget, tax, and audit activities; and oversees financial and accounting system controls and standards. NPCC uses a CPA firm to prepare its unaudited statements of activities and financial statements for quarterly reviews. Independent audits have identified this system as a best practice.

## 2015 Goals and Key Deliverables

The objectives are to provide or obtain the financial and accounting services for NPCC and coordinate with NERC requirements:

- Utilize the NERC System of Accounts for consistency
- Utilize an accrual method of accounting for consistency with NERC in methodology
- Cash Management
- Budget Development using the NERC budget template formats
- Forecasts and Projections
- Alignment of NPCC Committees, Task Forces and Working Groups with the programs
- Payroll and expense administration
- Preparation of unaudited Quarterly Financial Statements
- IRS Reporting
- Annual Independent Audit initiated by the Regional Entity


## Funding Sources and Requirements - Explanation of Increase (Decrease)

## Funding Sources (Other than ERO Assessments)

- Not applicable


## Operating Expenses and Indirect Expenses

- NPCC total overhead expenses, such as office rent and office costs will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.

Other Non-Operating Expenses

- None

Fixed Asset Additions

- None


## Regional Entity Assessment Analysis

In the area of assessments there are distinct funding mechanisms as outlined in the following table. For the Regional Entity division, the North American Electric Reliability Corporation (NERC) will assess load serving entities (LSEs) or their designees (within NPCC the designees are the Balancing Authority Areas (BAAs) for New York, New England, New Brunswick, Nova Scotia, Ontario and Québec) based upon 2013 proportional Net Energy for Load (NEL) and other specific program area funding arrangements and make quarterly remittances to the Regional Entity on or about the 15th day of January, April, July and October. For funding associated with the criteria services division, the Independent System Operators/Balancing Authority Areas (ISO/BAAs) will be assessed by NPCC for their proportional share of the divisional budget based upon 2012 NEL within the Region. Non ISO/BAA Full Members will be assessed no membership fee.

## NPCC Cost Allocation Methodology

The accompanying table provides information regarding cost allocation for both the Regional Entity division and the criteria services division of NPCC, including the details associated with the funding of the Compliance Program within the RE division. For purposes of determining assessments to support NPCC's resource requirements, costs are allocated among the BAAs within NPCC as the designees for the load-serving-entities in New York, New England, Ontario, Québec, New Brunswick and Nova Scotia (Column A-1).

In order to reflect and respect the international membership and nature of NPCC, the compliance responsibilities and authorities within the U.S., and the specific compliance responsibilities within each of the Canadian provinces within NPCC, the attendant costs of portions of the compliance program differ among the areas within the Regional Entity. Within the U.S. portion of NPCC all costs attributable to delegated (statutory) functions performed by NPCC, including all compliance functions, are assessed based on a NEL allocation. Within the Canadian portion of NPCC those costs attributable to compliance functions performed by NPCC on behalf of provincial governmental and/or regulatory authorities are allocated consistent with the unique Memoranda of Understanding or Agreements that have been entered into for those provinces. To address these different compliance regimes, NPCC developed a composite cost allocation methodology that allocates compliance costs on a fair and equitable basis within the Regional Entity.

As an initial step of that methodology, the NEL for each of the BAAs and their relative percentage to the NPCC total NEL is calculated for the most recent year for which data is available, the second previous year (Columns B-1 and C-1, respectively). In order to establish the RE division funding requirements for each balancing authority area on a NEL basis for all programs except for compliance (Column F-1), the proposed expenses and fixed assets of all other programs are calculated (Column D-1) and the adjustment for the RE division cash reserve requirement is identified (Column E-1). Any penalty monies received from NPCC registered entities within the U.S. prior to June $30^{\text {th }}$ of the year preceding the business plan and budget year are then allocated among the NPCC program areas based on their FTE ratio and between the U.S. BAAs based on their relative NELs (Columns B-1a., C-1a. and G-1, respectively). Consistent with each of the Canadian provincial MOUs and agreements, all penalty monies resulting from compliance actions within Canada, if any, would remain within the applicable province. The total budgeted fees for NPCC workshop participation are indicated as a credit
(Column H-1), with the resultant addition being the RE division assessment, without the compliance program costs, calculated on a NEL basis (Column I-1).

In accordance with the NPCC Amended and Restated Bylaws the CS division proposed expenses and fixed assets of all programs are calculated (Column J-1) and the adjustment for the CS division cash reserve requirement is identified (Column K-1), with the resultant addition being the CS division funding requirement and assessment, calculated on a NEL basis (Column L-1).

For costs associated with the RE division compliance program, NPCC's allocation methodology apportions $22.41 \%$ of the costs for the program, attributed to CORC Fundamentals (CF), between the BAAs in the United States and Canada on a NEL basis (Column B-2).

Audits and Investigations (AI) related costs, representing $51.71 \%$ of the costs of the compliance program, are allocated between U.S. and Canadian BAAs in NPCC, and among the Canadian provinces, using an audit-based methodology (Columns C-2a., C-2c., and D-2b., respectively). The audit-based methodology incorporates relative costs based on categories of compliance audits which are reflective of their size and complexity, as well as the differing compliance program implementation models that are utilized in NPCC due to the international nature of the Regional Entity. The portion allocated to the U.S. BAAs in NPCC is calculated using the auditbased methodology, and this amount is then re-allocated between the New York and New England BAAs based on their relative NEL (Columns C-2b. and D-2a.).

The remaining $25.88 \%$ of the costs of the compliance program represent Mitigation and Enforcement (ME) related costs and are allocated between U.S. and Canadian BAAs in NPCC, and among the Canadian provinces, using an enforcement activity based methodology, (Columns E-2a., E-2c., and F-2b., respectively). Based on historical data, NPCC reviewed each BAAs percentage of violations, mitigation plans and settlement agreements to determine each BAAs total average percentage of enforcement activities. The portion allocated to the U.S. BAAs in NPCC is calculated using the enforcement activity based methodology, and this amount is then re-allocated between the New York and New England BAAs based on their relative NEL (Columns E-2b. and F-2a.).

Any penalty monies received from NPCC registered entities within the U.S. by June 30th of the year preceding the business plan and budget year are then allocated among the NPCC program areas based on their FTE ratio and between the U.S. BAAs based on their relative NELs, and then added to the total compliance program expenses and fixed assets to yield a total compliance program assessment (Columns C-1a., H-2, G-2 and I-2, respectively).

Finally, the total RE division funding requirements and assessments by BAA are tabulated and the total funding requirements and assessments for NPCC, both the RE and CS divisions, are combined (Column M).


|  |  |  | CORC A | d Investigation | Allocation ${ }^{3}$ |  |  | CORC Mitig | and Enforcemen | st Allocation ${ }^{4}$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A-2 | B-2 |  | C-2 |  |  |  |  | E-2 |  |  |  | G-2 | H-2 | I-2 | ${ }^{\text {J-2 }}$ | K-2 | L-2 | M |
| NPCC | 2013 NEL Based Allocation of | Audit and Ir | ${ }_{\text {igation Allocait }}^{2015}$ | ethodology | 51.71\% | Corc Program | Mitigation and | ${ }_{\text {cement Alloca }}^{2015}$ | Methodology | 25.88\% | f CORC Program | $\begin{gathered} 2015 \\ \text { Total CORC } \end{gathered}$ |  | $\begin{gathered} 2015 \\ \text { Total CORC } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { RE Division } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { RE Division } \end{gathered}$ | $\begin{gathered} 2015 \\ \text { NPCC } \end{gathered}$ | $\underset{\text { Total }}{2015 \mathrm{NPCC}}$ |
| Balancing | 22.41\% of 2014 | a | b | c | a | b | ${ }^{\text {a }}$ | b | c | a | b | Program | Penaly Monies | Program | Total Funding | Total | Total Funding |  |
| Authorit | CORC Program | Total NPCC | u.s. | Canada | u.s. | Canada | Enforcement | u.s. | Canada | u.s. | Canada | Expenses \& | Applied to | Assesmment | Requirement | Assessment | Requirement | Member Fees |
| (LSE Designes) | Fundamentak ${ }^{2}$ | Audit Based | NEL Based | Audit Based | NEL Based | Audit Based | Activity Based | NEL Based | Activity Based | NEL Based | Activity Based | Fixed Assets | CORC Program | (G-2 plus $\mathrm{H}-2$ ) | (F-1 plus G-2) | (l-1 plus $1-2)$ | (L-1 plus J-2) | (L-1 plus K-2) |
| New England | 383,005 | 47.39467\% | 36.35833\% |  | 1,610,888 |  | 53.26680\% | 38.27137\% |  | 848,643 |  | 2,842,535 | -73,695 | 2,768,841 | 4,010,473 | 3,869,386 | 4,216,968 | 4,075,881 |
| New York | 484,063 | 34.91537\% | 45.95172\% |  | 2,03,931 |  | 33.37410\% | 48.36953\% |  | 1,072,563 |  | 3,592,558 | -93,140 | 3,499,418 | 5,068,664 | 4,890,350 | 5,329,643 | 5,151,330 |
| Ontario | 416,635 | 5.14634\% |  | 5.14634\% |  | 228,013 | 3.78990\% |  | 3.78990\% |  | 84,039 | 728,686 | 0 | 728,686 | 1,999,175 | 1,985,288 | 2,223,801 | 2,209,914 |
| Québec | 561,649 | 7.64011\% |  | 7.64011\% |  | 338,502 | 8.43670\% |  | 8.43670\% |  | 187,078 | 1,087,229 | 0 | 1,087,229 | 2,799,925 | 2,781,204 | 3,102,734 | 3,084,014 |
| New Bruswick | 41,694 | 2.73304\% |  | 2.73304\% |  | 121,090 | 0.49970\% |  | 0.49970\% |  | 11,081 | 173,864 | 0 | 173,864 | 301,006 | 299,616 | 323,485 | 322,095 |
| Nova Scotia | 33,076 | 2.17047\% |  | 2.1704\% |  | 96,165 | 0.63280\% |  | 0.63280\% |  | 14,032 | 143,273 | 0 | 143,273 | 244,136 | 243,033 | 261,969 | 260,866 |
| Total | \$1,920,121 | 100.00000\% | 82.31005\% | 17.68995\% | $\begin{gathered} \text { S3,646,819 } \\ \text { Total }= \end{gathered}$ | $\begin{gathered} \$ 783,769 \\ \$ 4,430,588 \end{gathered}$ | 100.00000\% | 86.64090\% | 13.35910\% | $\underset{\substack{\text { S1,921,206 } \\ \text { Total }}}{ }$ | $\begin{aligned} & \$ 296,229 \\ & \$ 2,217,436 \end{aligned}$ | \$8,568,145 | -\$166,834 | \$8,401,311 | \$14,423,378 | \$14,068,878 | \$15,458,599 | \$15,104,099 |

2 CORC Program Fundamentals expenses of $\$ 1,920,121$ represent $22.41 \%$ of the Total CORC Program Cosst and are allocated using the Regional NEL based methodology.
 Columss B-1a. and C-1a. The ratios in C-1a. are applied to the 82.31005\% of U.S. audit cosss to obtain the percentages (Column C-2 b) which are then applied to the $51.71 \%$ of CORC costs. Audit based allocation uses Compliance Registry Data registrants as of May 1,2014 .


## Section B - Supplemental Financial Information 2015 Business Plan and Budget



## Section B - Supplemental Financial Information

## Reserve Balance

## Table B-1 - Reserve Balance

## Working Capital and Operating Reserve Analysis 2014-2015

 REGIONAL ENTITY DIVISION
${ }^{1}$ Total Reserve within a range of $16.67 \%-33.33 \%$ of Budget.
${ }^{2}$ Operating Reserve within a range from $8.33 \%$ to $25.00 \%$ of Budget. $\$ 3,358,411$ represents $22.72 \%$ of the 2015 budget of $\$ 14,778,539$
${ }^{3}$ Working Capital equal to $8.33 \%$ of Budget. $\$ 1,231,496$ represents $8.33 \%$ of the 2015 budget of $\$ 14,778,539$
${ }^{4}$ Represents collections prior to June 30, 2014.

## Explanation of Changes in Reserve Policy from Prior Year

On October 29, 2013 NPCC's Board of Directors approved management's proposed Working Capital and Operating Reserve Policy. The policy calls for a range between 8.33\% (30 days) and 25.00\% (90 days) rather than the specific required level of Operating Reserves of 8.33\%. This range will allow for more stability in Assessments. The Working Capital required balance remains unchanged at $8.33 \%$ ( 30 days).

## Breakdown by Statement of Activity Sections

The following detailed schedules are in support of the Regional Entity division Statement of Activities on page 13 of the 2015 Business Plan and Budget. All significant variances have been disclosed by program area in the preceding pages.

## Penalty Sanctions

U.S. penalty monies received prior to June 30, 2014 are to be used to offset assessments in the 2015 Budget, as documented in the NERC Policy - Accounting, Financial Statement, and Budgetary Treatment of Penalties Imposed and Received for Violations of Reliability Standard. Penalty monies received from July 1, 2014 through June 30, 2015 will be used to offset U.S. load serving entity designee assessments in the 2016 Budget.

All penalties received prior to June 30, 2014 are detailed below, including date received and the penalty amount.

Allocation Method: U.S. penalty sanctions received have been allocated to the following Regional Entity division programs to reduce assessments: Reliability Standards; Compliance Monitoring \& Enforcement and Organization Registration \& Certification; Reliability Assessments and Performance Analysis; Training, Education and Operator Certification; and Situation Awareness and Infrastructure Security. U.S. penalty sanctions are allocated based upon the number of FTEs in the Program divided by the aggregate total FTEs in the Programs receiving the allocation.

Table B-2 - Penalty Sanctions

| Penalty Sanctions Received Prior to June 30, 2014 |  |  |  |
| :--- | ---: | ---: | ---: |
| Penalty Payment 1 | Date Received | Amount Received |  |
| Penalty Payment 2 | $7 / 5 / 2013$ | $\$$ | $50,000.00$ |
| Penalty Payment 3 | $7 / 5 / 2013$ | $\$$ | $10,000.00$ |
| Penalty Payment 4 | $7 / 5 / 2013$ | $\$$ | $30,000.00$ |
| Penalty Payment 5 | $7 / 5 / 2013$ | $\$$ | $25,000.00$ |
| Penalty Payment 6 | $9 / 4 / 2013$ | $\$$ | $7,000.00$ |
| Penalty Payment 7 | $10 / 16 / 2013$ | $\$$ | $25,000.00$ |
| Penalty Payment 8 | $11 / 1 / 2013$ | $\$$ | $5,000.00$ |
| Penalty Payment 9 | $1 / 8 / 2014$ | $\$$ | $25,000.00$ |
| Penalty Payment 10 | $3 / 6 / 2014$ | $\$$ | $14,000.00$ |
| Penalty Payment 11 | $4 / 30 / 2014$ | $\$$ | $90,000.00$ |
|  | $6 / 18 / 2014$ | $\$$ | $9,500.00$ |
|  |  |  |  |
| Total Penalties Received |  |  |  |

Table B-3 - Supplemental Funding

| Outside Funding Breakdown By Program (excluding ERO Assessments \& Penalty Sanctions) |  | $\begin{aligned} & \text { Budget } \\ & 2014 \end{aligned}$ |  | $\begin{aligned} & \text { Projection } \\ & 2014 \end{aligned}$ |  | $\begin{gathered} \text { Budget } \\ 2015 \end{gathered}$ | Variance2015 Budget v2014 Budget |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reliability Standards |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Total | \$ | - | \$ | - | \$ | - | \$ | - |
| mpliance Monitoring, Enforcement \& Org. Registration |  |  |  |  |  |  |  |  |
|  | \$ | - | \$ | - | \$ | - | \$ | - |
|  |  | - |  | - |  | - |  | - |
| Total | \$ | - | \$ | - | \$ | - | \$ | - |
|  |  |  |  |  |  |  |  |  |
| Reliability Assessment and Performance Analysis |  |  |  |  |  |  |  |  |
|  | \$ | - | \$ | - | \$ | - | \$ | - |
|  |  | - |  | - |  | - |  | - |
| Total | \$ | - | \$ | - | \$ | - | \$ | - |
|  |  |  |  |  |  |  |  |  |
| Training and Education |  |  |  |  |  |  |  |  |
| Workshops | \$ | 64,000 | \$ | 64,000 | \$ | 64,000 | \$ | - |
|  |  |  |  |  |  |  |  |  |
| Total | \$ | 64,000 | \$ | 64,000 | \$ | 64,000 | \$ | - |
|  |  |  |  |  |  |  |  |  |
| Situation Awareness and Infrastructure Security |  |  |  |  |  |  |  |  |
|  | \$ | - | \$ | - | \$ | - | \$ | - |
|  |  |  |  |  |  |  |  |  |
| Total | \$ | - | \$ | - | \$ | - | \$ | - |
|  |  |  |  |  |  |  |  |  |
| Technical Committees and Member Forums |  |  |  |  |  |  |  |  |
|  | \$ | - | \$ | - | \$ | - | \$ | - |
|  |  |  |  |  |  |  |  |  |
| Total | \$ | - | \$ | - | \$ | - | \$ | - |
|  |  |  |  |  |  |  |  |  |
| Administrative Services Programs |  |  |  |  |  |  |  |  |
|  | \$ | - | \$ | - | \$ | - | \$ | - |
|  |  |  |  |  |  |  |  |  |
| Total | \$ | - | \$ | - | \$ | - | \$ | - |
|  |  |  |  |  |  |  |  |  |
| Total Outside Funding | \$ | 64,000 | \$ | 64,000 | \$ | 64,000 | \$ | - |

## Explanation of Significant Variances -2015 Budget versus 2014 Budget

- NPCC assumed no interest income because of continuing low market interest rates.

Table B-4 - Personnel Expenses

| Personnel Expenses |  | Budget$2014$ |  | $\begin{gathered} \text { Projection } \\ 2014 \end{gathered}$ |  | Budget 2015 |  | Variance 2015 Budget v 2014 Budget |  | Variance \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Salaries |  |  |  |  |  |  |  |  |  |  |
| Salary |  | \$ | 5,886,227 | \$ | 5,886,227 | \$ | 6,175,425 | \$ | 289,198 | 4.9\% |
| Employment Agency Fees |  | \$ | 15,000 | \$ | 15,000 | \$ | 10,000 | \$ | $(5,000)$ | -33.3\% |
| Temporary Office Services |  | \$ | 10,000 | \$ | 10,000 | \$ | 10,000 | \$ | - | 0.0\% |
| Total Salaries |  | \$ | 5,911,227 | \$ | 5,911,227 | \$ | 6,195,425 | \$ | 284,198 | 4.8\% |
|  |  |  |  |  |  |  |  |  |  |  |
| Total Payroll Taxes |  | \$ | 384,311 | \$ | 384,311 | \$ | 387,209 | \$ | 2,898 | 0.8\% |
|  |  |  |  |  |  |  |  |  |  |  |
| Benefits |  |  |  |  |  |  |  |  |  |  |
| Education Reimbursement |  | \$ | - | \$ | - | \$ | 10,000 | \$ | 10,000 | - |
| Training and Seminars |  | \$ | 36,123 | \$ | 36,123 | \$ | 36,123 | \$ | - | 0.0\% |
| Medical Insurance |  | \$ | 915,306 | \$ | 915,306 | \$ | 720,337 | \$ | $(194,969)$ | -21.3\% |
| Life-LTD-STD Insurance |  | \$ | 63,552 | \$ | 63,552 | \$ | 64,366 | \$ | 815 | 1.3\% |
| Worker's Compensation |  | \$ | 14,700 | \$ | 14,700 | \$ | 14,700 | \$ | - | 0.0\% |
| Vacation |  | \$ | 400,580 | \$ | 400,580 | \$ | 410,868 | \$ | 10,288 | 2.6\% |
| Relocation |  | \$ | - | \$ | - | \$ | - | \$ | - | - |
| Total Benefits |  | \$ | 1,430,261 | \$ | 1,430,261 | \$ | 1,256,395 | \$ | $(173,866)$ | -12.2\% |
|  |  |  |  |  |  |  |  |  |  |  |
| Retirement |  |  |  |  |  |  |  |  |  |  |
| Pension Contribution |  | \$ | 590,892 | \$ | 590,892 | \$ | 353,723 | \$ | $(237,169)$ | -40.1\% |
| Employee Savings Plan |  | \$ | 478,469 | \$ | 478,469 | \$ | 644,290 | \$ | 165,821 | 34.7\% |
| Savings Admin |  | \$ | 32,000 | \$ | 32,000 | \$ | 32,000 | \$ | - | 0.0\% |
| Deferred Compensation |  | \$ | 23,000 | \$ | 23,000 | \$ | 60,000 | \$ | 37,000 | 160.9\% |
| Total Retirement |  | \$ | 1,124,361 | \$ | 1,124,361 | \$ | 1,090,013 | \$ | $(34,348)$ | -3.1\% |
|  |  |  |  |  |  |  |  |  |  |  |
| Total Personnel Costs |  | \$ | 8,850,160 | \$ | 8,850,160 | \$ | 8,929,041 | \$ | 78,881 | 0.9\% |
|  |  |  |  |  |  |  |  |  |  |  |
| FTEs |  |  | 36.86 |  | 36.86 |  | 36.86 |  | - | 0.0\% |
|  |  |  |  |  |  |  |  |  |  |  |
| Cost per FTE |  |  |  |  |  |  |  |  |  |  |
|  | Salaries | \$ | 160,370 | \$ | 160,370 | \$ | 168,080 | \$ | 7,710 | 4.8\% |
|  | Payroll Taxes | \$ | 10,426 | \$ | 10,426 | \$ | 10,505 | \$ | 79 | 0.8\% |
|  | Benefits | \$ | 38,803 | \$ | 38,803 | \$ | 34,086 | \$ | $(4,717)$ | -12.2\% |
|  | Retirement | \$ | 30,504 | \$ | 30,504 | \$ | 29,572 | \$ | (932) | -3.1\% |
|  |  |  |  |  |  |  |  |  |  |  |
| Total Cost per FTE |  | \$ | 240,102 | \$ | 240,102 | \$ | 242,242 | \$ | 2,140 | 0.9\% |

## Explanation of Significant Variances -2015 Budget versus 2014 Budget

- The increase in Salaries reflects an overall general wage increase of 3\%, at risk (variable incentives) compensation at less than $100 \%$ of program levels, and implementation of recommendations of NPCC's Management Development and Compensation Committee, which were based on an independent compensation study.
- Benefits expense decreased due to more staff opting out of company sponsored health insurance for superior coverage through prior employer or spouse.
- Pension contribution decreased while employee savings plan increased due to transition of employees formerly accruing benefits under the defined benefit plan to receiving defined contribution benefits in 2015.
- The decrease in Employment Agency Fee is due to no planned staff additions in 2015. Agencies would be used only to fill positions vacated during the year.
- A $2 \%$ vacancy factor is assumed based on historical vacancy trends.

Table B-5 - Consultants and Contracts


## Explanation of Significant Variances -2015 Budget versus 2014 Budget

- Compliance Enforcement and Organization Registration and Certification consultant and contractor costs increased due to increased workload related to the initial implementation of the RAI, incorporating Risk Assessment and Internal Control assessment. Without this one time ramp up in RAI endeavors for 2015, contractor costs would have remained relatively flat. These joint ERO Enterprise initiatives are intended to benefit the registered entities, Regional Entities and NERC. With a risk and performance based assessment of each registered entity, audits will transition to a periodicity more reflective of the risk profile of the entity such that some audits will be more in-depth while others may have a reduced scope which will require less independent contractor resources.
- Reliability Assessment and Performance Analysis contracts expense increase is related to implementation of the revised BES definition.

Table B-6 - Office Rent

| Office Rent | $\begin{gathered} \text { Budget } \\ 2014 \end{gathered}$ |  | Projection2014 |  | $\begin{gathered} \text { Budget } \\ 2015 \end{gathered}$ |  | Variance 2015 Budget v 2014 Budget |  | Variance \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Office Rent | \$ | 654,772 | \$ | 654,772 | \$ | 645,000 | \$ | $(9,772)$ | -1.5\% |
| Utilities | \$ | 35,000 | \$ | 35,000 | \$ | 40,000 | \$ | 5,000 | 14.3\% |
| Maintenance | \$ | 15,000 | \$ | 15,000 | \$ | 22,000 | \$ | 7,000 | 46.7\% |
| Security | \$ | 2,500 | \$ | 2,500 | \$ | 2,500 | \$ | - | 0.0\% |
| Real Estate Taxes | \$ | 30,000 | \$ | 30,000 | \$ | 42,000 | \$ | 12,000 | 40.0\% |
|  |  |  |  |  |  |  |  |  |  |
| Total Office Rent | \$ | 737,273 | \$ | 737,273 | \$ | 751,501 | \$ | 14,228 | 1.9\% |

Table B-7 - Office Costs

| Office Costs |  | Budget 2014 |  | $\begin{aligned} & \text { Projection } \\ & 2014 \end{aligned}$ |  | Budget <br> 2015 | Variance 2015 Budget v 2014 Budget |  | Variance \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Telephone | \$ | 110,000 | \$ | 110,000 | \$ | 110,000 | \$ | - | 0.0\% |
| Internet Expense | \$ | 80,000 | \$ | 80,000 | \$ | 80,000 | \$ | - | 0.0\% |
| Office Supplies | \$ | 35,000 | \$ | 35,000 | \$ | 36,000 | \$ | 1,000 | 2.9\% |
| Computer Supplies and Maintenance | \$ | 213,000 | \$ | 213,000 | \$ | 260,000 | \$ | 47,000 | 22.1\% |
| Subscriptions \& Publications | \$ | 13,000 | \$ | 13,000 | \$ | 13,500 | \$ | 500 | 3.8\% |
| Dues | \$ | 4,000 | \$ | 4,000 | \$ | 4,000 | \$ | - | 0.0\% |
| Postage | \$ | 1,500 | \$ | 1,500 | \$ | 1,200 | \$ | (300) | -20.0\% |
| Express Shipping | \$ | 10,000 | \$ | 10,000 | \$ | 10,000 | \$ | - | 0.0\% |
| Copying | \$ | 25,000 | \$ | 25,000 | \$ | 25,000 | \$ | - | 0.0\% |
| Reports | \$ | - | \$ | - | \$ | 5,000 | \$ | 5,000 | - |
| Stationary and Office Forms | \$ | 5,000 | \$ | 5,000 | \$ | 3,000 | \$ | $(2,000)$ | -40.0\% |
| Equipment Repair/Service Contracts | \$ | 10,000 | \$ | 10,000 | \$ | 8,000 | \$ | $(2,000)$ | -20.0\% |
| Bank Charges | \$ | 30,000 | \$ | 30,000 | \$ | 23,000 | \$ | $(7,000)$ | -23.3\% |
| Sales and Use Tax | \$ | - | \$ | - | \$ | - | \$ | - | - |
| Merchant Credit Card Fees | \$ | - | \$ | - | \$ | - | \$ | - | - |
| Presentation and Publicity | \$ | - | \$ | - | \$ | - | \$ | - | - |
| Total Office Costs | \$ | 536,500 | \$ | 536,499 | \$ | 578,700 | \$ | 42,200 | 7.9\% |

## Explanation of Significant Variances -2015 Budget versus 2014 Budget

- Computer Supplies and Maintenance expense is based on contracts currently in place and historical actual expense.

Table B-8 - Professional Services

| Professional Services | $\begin{gathered} \text { Budget } \\ 2014 \end{gathered}$ |  | $\begin{gathered} \text { Projection } \\ 2014 \end{gathered}$ |  | $\begin{gathered} \text { Budget } \\ 2015 \end{gathered}$ |  | Variance 2015 Budget $v$ 2014 Budget |  | Variance \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BOT Fee | \$ | 280,000 | \$ | 280,000 | \$ | 325,000 | \$ | 45,000 | 16.1\% |
| BOT Search Fee | \$ | - | \$ | - | \$ | - | \$ | - |  |
| Legal - Reorganization | \$ | - | \$ | - | \$ | - | \$ | - |  |
| Accounting \& Auditing Fees | \$ | 300,000 | \$ | 300,000 | \$ | 310,000 | \$ | 10,000 | 3.3\% |
| Legal Fees - Other | \$ | 350,000 | \$ | 350,000 | \$ | 350,000 | \$ | - | 0.0\% |
| Insurance - Commercial | \$ | 36,500 | \$ | 36,500 | \$ | 40,000 | \$ | 3,500 | 9.6\% |
| Total Services | \$ | 966,500 | \$ | 966,501 | \$ | 1,025,000 | \$ | 58,500 | 6.1\% |

## Table B-9 - Other Non-Operating Expenses

| Other Non-Operating Expenses |  | $\begin{gathered} \text { Budget } \\ 2014 \\ \hline \end{gathered}$ |  | $\begin{aligned} & \text { Projection } \\ & 2014 \end{aligned}$ |  | $\begin{gathered} \text { Budget } \\ 2015 \end{gathered}$ | Variance 2015 Budget v 2014 Budget |  | Variance \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interest Expense | \$ | - | \$ | - | \$ | - | \$ | - | - |
| Office Relocation | \$ | - | \$ | - | \$ | - | \$ | - |  |
| Total Non-Operating Expenses | \$ | - | \$ | - | \$ | - | \$ | - |  |

Table B-10 - 2016 and 2017 Projections

Statement of Activities and Capital Expenditures 2015 Budget \& Projected 2016 and 2017 Budgets

|  | $\begin{gathered} 2015 \\ \text { Budget } \end{gathered}$ |  | 2016 <br> Projection |  | \$ Change 15 v 16 |  | \%Change 15 v 16 | 2017 <br> Projection |  | \$ Change 16 v 17 |  | \% Change 16 v 17 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Funding |  |  |  |  |  |  |  |  |  |  |  |  |
| ERO Funding |  |  |  |  |  |  |  |  |  |  |  |  |
| ERO Assessments | \$ | 14,068,878 | \$ | 14,914,805 | \$ | 845,927 | 6.0\% | \$ | 15,256,789 | \$ | 341,984 | 2.2\% |
| Penalty Sanctions |  | 290,500 |  | - |  | $(290,500)$ | -100.0\% |  | - |  | - |  |
| Total ERO Funding | \$ | 14,359,378 | \$ | 14,914,805 | \$ | 555,427 | 3.9\% | \$ | 15,256,789 | \$ | 341,984 | 2.2\% |
| Membership Dues |  | - |  | - |  | - |  |  | - |  | - |  |
| Testing Fees |  | - |  | - |  | - |  |  | - |  | - |  |
| Serrices \& Software |  | - |  | - |  | - |  |  | - |  |  |  |
| Workshops |  | 64,000 |  | 64,000 |  | - | 0.0\% |  | 64,000 |  | - | 0.0\% |
| Interest |  | - |  | - |  | - |  |  | - |  |  |  |
| Miscellaneous |  | - |  | - |  | - |  |  | - |  |  |  |
| Total Funding (A) | \$ | 14,423,378 | \$ | 14,978,805 | \$ | 555,427 | 3.9\% | \$ | 15,320,789 | \$ | 341,984 | 2.3\% |
| Expenses |  |  |  |  |  |  |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |  |  |  |  |  |  |
| Salaries | \$ | 6,195,425 | \$ | 6,381,287 | \$ | 185,863 | 3.0\% | \$ | 6,572,726 | \$ | 191,439 | 3.0\% |
| Payroll Taxes |  | 387,209 |  | 398,825 |  | 11,616 | 3.0\% |  | 410,790 |  | 11,965 | 3.0\% |
| Benefits |  | 1,256,595 ${ }^{\text {² }}$ |  | 1,331,990 |  | 75,396 | 6.0\% |  | 1,411,910 |  | 79,919 | 6.0\% |
| Retirement Costs |  | 1,090,013 |  | 1,122,713 |  | 32,700 | 3.0\% |  | 1,156,395 |  | 33,681 | 3.0\% |
| Total Personnel Expenses | \$ | 8,929,241 | \$ | 9,234,816 | \$ | 305,575 | 3.4\% | \$ | 9,551,820 | \$ | 317,004 | 3.4\% |
| Meeting Expenses |  |  |  |  |  |  |  |  |  |  |  |  |
| Meetings | \$ | 365,000 | \$ | 368,650 | \$ | 3,650 | 1.0\% | \$ | 372,337 | \$ | 3,687 | 1.0\% |
| Travel |  | 890,000 |  | 898,900 |  | 8,900 | 1.0\% |  | 907,889 |  | 8,989 | 1.0\% |
| Conference Calls |  | 45,000 |  | 45,450 |  | 450 | 1.0\% |  | 45,905 |  | 455 | 1.0\% |
| Total Meeting Expenses | \$ | 1,300,000 | \$ | 1,313,000 | \$ | 13,000 | 1.0\% | \$ | 1,326,130 | \$ | 13,130 | 1.0\% |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |  |  |
| Consultants \& Contracts | \$ | 2,342,000 | \$ | 2,212,000 |  | $(130,000)$ | -5.6\% | \$ | 2,212,000 | \$ | - | 0.0\% |
| Office Rent |  | 751,500 |  | 759,015 |  | 7,515 | 1.0\% |  | 766,605 |  | 7,590 | 1.0\% |
| Office Costs |  | 578,700 |  | 590,274 |  | 11,574 | 2.0\% |  | 602,079 |  | 11,805 | 2.0\% |
| Professional Services |  | 1,025,000 ${ }^{\text {² }}$ |  | 1,025,000 |  | - | 0.0\% |  | 1,025,000 |  | - | 0.0\% |
| Miscellaneous |  | 40,000 |  | 40,800 |  | 800 | 2.0\% |  | 41,616 |  | 816 | 2.0\% |
| Depreciation |  | 202,019 |  | 206,059 |  | 4,040 | 2.0\% |  | 210,181 |  | 4,121 | 2.0\% |
| Total Operating Expenses | \$ | 4,939,219 | \$ | 4,833,148 | \$ | $(106,071)$ | -2.1\% | \$ | 4,857,481 | \$ | 24,333 | 0.5\% |
| Total Direct Expenses | s | 15,168,460 | s | 15,380,965 | S | 212,504 | 1.4\% | s | 15,735,432 | s | 354,467 | 23\% |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Indirect Expenses | \$ | $(409,902)$ | \$ | $(418,100)$ | \$ | $(8,198)$ | 2.0\% | \$ | $(426,462)$ | \$ | $(8,362)$ | 2.0\% |
| Other Non-Operating Expenses | \$ | - | \$ | - | \$ | - |  | \$ | - | \$ | - |  |
| Total Expenses (B) | \$ | 14,758,558 | \$ | 14,962,865 | \$ | 204,306 | 1.4\% | \$ | 15,308,970 | \$ | 346,105 | 2.3\% |
| Change in Assets | \$ | $(335,180)$ | \$ | 15,941 | \$ | 351,121 | -104.8\% | \$ | 11,819 | \$ | $(4,121)$ | -25.9\% |
| Fixed Assets |  |  |  |  |  |  |  |  |  |  |  |  |
| Depreciation | \$ | $(202,019)$ | \$ | $(206,059)$ | \$ | $(4,040)$ | 2.0\% | \$ | $(210,181)$ | \$ | $(4,121)$ | 2.0\% |
| Computer \& Software CapEx |  | 222,000 |  | 222,000 |  | - | 0.0\% |  | 222,000 |  | - | 0.0\% |
| Furniture \& Fixtures CapEx |  |  |  | - |  | - |  |  | - |  | - |  |
| Equipment CapEx |  | - |  | - |  | - |  |  | - |  | - |  |
| Leasehold Improvements |  | - |  | - |  | - |  |  | - |  | - |  |
| (Incr)Dec in Fixed Assets (C) | \$ | 19,981 | \$ | 15,941 | \$ | $(4,040)$ | -20.2\% | \$ | 11,819 | \$ | $(4,121)$ | -25.9\% |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) | \$ | 14,778,539 | \$ | 14,978,805 | \$ | 200,266 | 1.4\% | \$ | 15,320,789 | \$ | 341,984 | 2.3\% |
| TOTAL CHANGE IN WORKING CAPITAL (=A-B-C) | \$ | $(355,161)$ | \$ | (0) | \$ | 355,161 | $\underline{-100.0 \%}$ | \$ | (0) | \$ | 0 | $\underline{-21.4 \%}$ |
| FTEs |  | 36.86 |  | 36.86 |  | 0 | 0.0\% |  | 36.86 |  | 0.00 | 0.0\% |

## Projections for 2016 and 2017

- No increase in FTE's above 2015 budgeted levels.
- Wage package increase of $3 \%$.
- Decrease in consultants and contracts expenses due to anticipated decrease in contractor workload after the initial implementation of the RAI, Risk Assessment, Internal Control assessment and revised BES definition implementation.
- Resource reprioritization and efforts to contain meeting, travel and overall operating expenses continue.


## Section C - Criteria Services Division Activities 2015 Business Plan and Budget



## Section C -2014 Criteria Services Division Business Plan and Budget

| Criteria Services Division <br> (in w hole dollars) |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 2014 Budget | 2015 Budget | Increase (Decrease) |
| Total FTEs | 2.14 | 2.14 | 0.00 |
| Total Direct Expenses | \$683,240 | \$729,550 | \$46,310 |
| Total Indirect Expenses | \$405,859 | \$409,902 | \$4,043 |
| Other Non-Operating Expenses | \$0 | \$0 | \$0 |
| Working Capital and Operating Reserves Requirement | (\$75,391) | (\$94,220) | $(\$ 18,829)$ |
| Inc(Dec) in Fixed Assets | $(\$ 24,000)$ | (\$10,011) | \$13,989 |
| Funding Requirement | \$989,708 | \$1,035,221 | \$45,513 |

## NPCC Regionally-Specific Criteria Services Background

NPCC Criteria Services division activities are based on the development, maintenance and promulgation of Regionally-specific more stringent criteria as well as criteria establishing resource adequacy requirements within the Region. These criteria contain requirements which are more stringent and more specific than the existing NERC Reliability Standards requirements. These criteria require continual evaluation to ensure they are "not inconsistent with" any NERC reliability standards.

## Membership and Governance

Full members are subject to compliance with Regionally-specific criteria, in addition to continent-wide Reliability Standards, and receive criteria-related services from the Criteria Services division.

Full Members, aside from those who perform the Balancing Authority function, are not assessed an annual membership fee. Those that perform Balancing Authority functions are assessed and remit a proportional net energy for load share of expenses for criteria services. NPCC would also directly assign criteria service division costs to a Balancing Authority Area or entity, where significant costs are incurred for that Balancing Authority Area. The funding for NPCC's Criteria Services division is approved by the NPCC Board of Directors.

Criteria Services Division Functional Scope
Through its Criteria Services division, NPCC promotes the reliable and efficient operation of the international, interconnected bulk power systems in Northeastern North America through the establishment of Regionally-specific criteria, and monitoring and enforcement of compliance with such criteria.

NPCC provides Full Members with Regional reliability assurance services, and acts as the vehicle through which States and Provinces can fulfill their political mandates, with respect to resource adequacy, as well as overseeing the Northeastern North American electric infrastructure.

## Major 2015 Assumptions and Cost Impacts

The Criteria Services division services are expected to remain stable throughout 2015 when compared to the Regional Entity division.

- The Criteria Compliance Enforcement Program (CCEP) review and evaluation process has matured and been enhanced after its inception in 2012. Criteria Compliance submittals to the CC are done as necessary.
- Past non-compliances, if any, followed the due process stated in the CCEP-1 process document and proper resolution/enforcement action taken.


## 2015 Primary Goals and Objectives

- Review, maintain, and revise the NPCC Regional Reliability Directories to facilitate compliance assessments and ensure the Criteria portions of the Directories are "not inconsistent" with, nor duplicative with, the approved and effective NERC Standards.
- The criteria services division and CCEP Working Group (reporting to the Compliance Committee) will work with the various Task Forces to develop Criteria Compliance Reporting Forms for additional NPCC Directories to ensure that the more stringent or Regionally-specific criteria is being met.
- The criteria services division and CCEP working group will work with TFCO, TFCP, TFSS, and TFSP to review criteria and measures within each specific NPCC Directory to identify and develop them into specific reporting forms for approval.
- Review impact of Bulk Electric System definition on Directory and Criteria content and compliance reporting.
- Review impact of Sector or NPCC organizational changes on the Directory and Criteria review, enforcement and arbitration processes
- Assist Legal with preparation of revised Directories for Regulatory filings with the individual Provinces in accordance with their respective Memorandum of Understandings (MOUs) as well as the State of New York Public Service Commission
- Facilitate any requested interpretations for NPCC Criteria with the necessary subject matter experts and identify potential opportunities for clarifications of the Criteria.


## NPCC Reliability Directory Maintenance and Development

The NPCC Regional Reliability Directories were developed to demonstrate that the NPCC more stringent criteria are not inconsistent with the NERC Reliability Standards as mandated by the NERC Rules of Procedure. The Directory project was also undertaken to remove any redundancies with the NERC Reliability Standards and to clearly delineate the more stringent NPCC criteria requirements. In 2013 the directories were further reviewed and revision of the directories is underway to transition the criteria language into a "requirement type" format. This further revision facilitates the NPCC Region's CCEP and ensures the continued delineation of the more stringent and more specific Regional criteria from the latest approved and effective set of NERC ERO standards.

In 2015, work will proceed with maintenance and revision of the Directories to address any future redundancies with NERC or NPCC Reliability Standards as well as the continued need for additional more stringent or specific NPCC Regional criteria requirements as new NERC Reliability Standards are developed and existing standards are revised. NPCC will continue to rely on contractors for subject matter expertise on an as-needed basis throughout 2015. The amount of Regional documents being converted into Directories and the maintenance of the Directories require subject matter expert input. In addition, changes will be necessary to bring the Phase II Directory project to completion. This project will require significant resources to translate the existing criteria language into "requirements" that are clear, concise and measurable. Also a standards template will be applied to the existing Directories to make them more consistent with the look of the standards. As NERC standards improve, the need for NPCC Directories and amount of criteria contained therein will gradually decrease over time however in the interim, significant review is necessary to ensure the criteria remain "not inconsistent with" the NERC standards as outlined in the NERC Rules of Procedure.

The following Directories will either be under revision or reviewed for further development based on a schedule set forth in the NPCC Reliability Assessment Program:

## Operations and Planning Directories

Directory \#1, Basic Criteria for Design and Operation of Interconnected Power Systems This directory documents NPCC’s Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with all the existing NERC TPL, BAL, IRO, INT, MOD, TOP, PRC and VAR standards. The NPCC Task Force on Coordination of Planning will lead a multidisciplinary working group, consisting of operations and planning subject matter experts to review and revise this directory to reflect the FERC ruling on TPL and other TOP changes.

## Directory \#2, Emergency Operations

This directory documents NPCC’s Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with all the existing NERC EOP and TOP standards. The NPCC Task Force on Coordination of Operation will lead this review and revision.

Directory \# 3, Maintenance Requirements for BPS Protection
This Directory documents NPCC's Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with certain applicable NERC PRC standards. The NPCC Task Force on System Protection will lead this review and revision.

## Directory \# 4, BPS Protection

This Directory documents NPCC’s Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with certain applicable NERC PRC standards. The NPCC Task Force on System Protection will lead this review and revision.

## Directory \# 5, Operating Reserve Requirements

This directory documents NPCC’s Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with all the existing applicable NERC BAL, INT, and IRO standards. The NPCC Task Force on Coordination of Operation will lead this review and revision.

Directory \# 7, Special Protection Systems
This Directory documents NPCC's Regionally-specific, more stringent criteria for application and approval of SPS. The NPCC Task Force on System Protection will lead this review and revision.

## Directory \# 8 System Restoration

This Directory documents NPCC’s Regionally-specific, more stringent criteria with which each applicable entity must plan for and perform power system restoration following a major or a total blackout, and demonstrates coordination and consistency with applicable NERC EOP standards. The NPCC Task Force on Coordination of Operation will lead this review and revision.

Directory \# 9, Verification of Generator Gross and Net Reactive Power Capability
This Directory documents NPCC's Regionally-specific, more stringent criteria for verifying the Gross Reactive Power
Capability and Net Reactive Power Capability of generators or generating facilities. The NPCC Task Force on Coordination of Operation will lead this review and revision.

Directory \# 11, Disturbance Monitoring, This directory documents NPCC’s Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with certain existing NERC PRC standards. The NPCC Task Force on System Protection will lead this review and revision until such time as the NPCC PRC-002-01 Disturbance Monitoring Regional Standard is adopted by FERC and the applicable governmental authorities.

Directory \# 12, UFLS Program, This directory documents NPCC’s Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with certain existing NERC and NPCC developing PRC standard(s). The NPCC Task Force on System Studies will lead this review and revision until such time as the NPCC PRC-006-01 UFLS Regional Standard is approved by the NPCC membership, NERC BOT, the FERC and all the applicable governmental authorities in the Provinces of Canada within NPCC's footprint.

## NPCC Criteria Compliance Background

The NPCC criteria services division promotes the reliable operation of the bulk power system through implementation of a comprehensive compliance program. The compliance program that includes monitoring, assessing and enforcing compliance with more stringent, Regionally specific NPCC Criteria requirements, is known as the NPCC Criteria Compliance and Enforcement Program (CCEP) described in process document CCEP-1. This program was developed by the criteria services division and the CCEP Working Group under the purview of the NPCC Compliance Committee. The products of this program support the various Task Forces in their assessments of the NPCC Directories in meeting their goals for the Reliability Coordinating Committee as stated in Section A of this Business Plan.

The more stringent, Regionally-specific NPCC Criteria requirements reflect the unique operational and planning aspects of the bulk power system within the NPCC Region and are included in the NPCC "A" documents and their successors, the NPCC Directories.

NPCC issues non-monetary sanctions to enforce compliance with NPCC Criteria.

- The CCEP program is described in document CCEP-1, NPCC Criteria Compliance and Enforcement Program (CCEP) Process Document
- The implementation plan is described in document CCEP-2, Implementation Plan for 2011 NPCC Criteria Compliance and Enforcement Program
- On April 5, 2011, the above became effective upon Full Member approval of CCEP-1, and CCEP-2 and retired the following
o NPCC Criteria A-8, Reliability Compliance and Enforcement Program (RCEP)
o NPCC Guide B-22, Guidelines for Implementation of the NPCC Inc. Compliance Program
o NPCC Procedure C-32, Review Process for NPCC Reliability Compliance Enforcement Program
o Each of the above have been annotated as "retired effective 4/5/11 upon Full Member approval of CCEP-1... and CCEP-2..." on the NPCC public website

The CCEP-1 document

- recognizes the applicability of NPCC’s Regionally-specific, more stringent reliability criteria to the Full Members of NPCC, consistent with the Amended and Restated ByLaws, and respects the provisions of the several Canadian Memoranda of Understanding in the execution of the processes described
- provides a comprehensive CCEP Process Diagram showing the process of evaluating and approving Criteria Certification submittals, and additional processes and responsibilities in the event that non-compliances, disputes and sanctions arise
- describes the roles and responsibilities of Reporting Members, CC, RCC and Enforcement Panel in the compliance review and enforcement process
- describes Levels of Non-Compliance, associated non-monetary Sanctions, Lateness Policy and the Arbitration/Dispute Resolution process
- addresses Mitigation Plans for any violations under the enforcement process; and
- lists the mandatory Certification Forms to be submitted for review by the Task Forces to ensure compliance with NPCC Directories are being met

The CCEP currently requires annual submittal of Certification Forms by the Reliability Coordinators and Balancing Authorities to confirm compliance with various NPCC Directories. Currently the required Certification forms are for Directory \#1- Area Transmission Review, Directory \#8 - Key Facility List, Directory \#9 - Generator Real Power Verification, Directory \#10 - Verification of Generator Gross and Net Reactive Power Capability, and Directory \#12 UFLS Program Requirements. In 2014 NPCC anticipates expansion of the CCEP to include compliance assessment activities to all active Directories.

The CCEP identifies those specific NPCC Directories that are subject to monitoring, assessment and enforcement. These Directories also are subject to NPCC Criteria Compliance Audits.

The NPCC Compliance Committee (CC) has final approval of compliance assessments related to CCEP. The CCEP describes the roles and responsibilities of committees and panels used to resolve contested compliance and/or sanction or penalty determinations related to NPCC Directories.

## Explanation of Significant Variances - 2015 Budget versus 2014 Budget

## Personnel Expenses

- Salaries expense reflects implementation of recommendations of NPCC's Management Development and Compensation Committee, which were based on an independent compensation study.


## 2014 Budget and Projection and 2015 Budget Comparisons



## Personnel Analysis

| Total FTE's by Program Area | $\begin{gathered} \text { Budget } \\ 2014 \end{gathered}$ | $\begin{gathered} \text { Projection } \\ 2014 \end{gathered}$ | Direct FTEs 2015 Budget | Shared FTEs ${ }^{1}$ 2015 Budget | Total FTEs 2015 Budget | Change from 2014 Budget |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CRITERIA SERVICES DIVISION |  |  |  |  |  |  |
| Operational Programs |  |  |  |  |  |  |
| Reliability Standards | 1.07 | 1.07 | 1.00 | 0.07 | 1.07 | 0.00 |
| Compliance Enforcement and Organization Registration and Certification | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Training and Education | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Reliability Assessment and Performance Analysis | 1.07 | 1.07 | 1.00 | 0.07 | 1.07 | 0.00 |
| Situation Awareness and Infrastructure Security | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total FTEs Operational Programs | 2.14 | 2.14 | 2.00 | 0.14 | 2.14 | 0.00 |
| Administrative Programs |  |  |  |  |  |  |
| Member Forums | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| General and Administrative | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Information Technology | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Legal and Regulatory | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Human Resources | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Accounting and Finance | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total FTEs Administrative Programs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total FTEs | 2.14 | 2.14 | 2.00 | 0.14 | 2.14 | 0.00 |

${ }^{1}$ A shared FTE is defined as an employee who performs both Regional Entity and Criteria Services division functions.

## Reserve Analysis 2014-2015

## Working Capital and Operating Reserve Analysis 2014-2015

CRITERIA SERVICES DIVISION

|  | Total Reserve | Operating Reserve | Working Capital |
| :---: | :---: | :---: | :---: |
| Beginning Working Capital and Operating Reserves, December 31, 2013 | 816,612 | 727,857 | 88,755 |
| 2014 Non-Statutory Funding (from members) | 989,708 | 989,708 | 0 |
| 2014 Other funding sources |  | 0 | 0 |
| Less: 2014 Projected expenses \& fixed asset additions | $(1,065,100)$ | (1,065,100) | 0 |
| Projected Working Capital, December 31, 2014 | 741,220 | 652,465 | 88,755 |
| Desired Working Capital and Operating Reserve, December 31, 2015 | 647,000 | 552,884 | 94,116 |
| Less: Projected Working Capital Reserve Balance December 31, 2014 | $(741,220)$ | $(652,465)$ | $(88,755)$ |
| Increase(decrease) in assessments to achieve desired Total Reserve | $(94,220)$ | $(99,581)$ | 5,361 |


| $1,129,441$ |
| ---: |
| $(94,220)$ |
| $1,035,221$ |

## Explanation of Changes in Reserve Policy from Prior Year

On October 29, 2013 NPCC's Board of Directors approved management's proposed Working Capital and Operating Reserve Policy. The policy calls for a range between 8.33\% ( 30 days) and 25.00\% (90 days) rather than the specific required level of Operating Reserves of $8.33 \%$. This range will allow for more stability in Assessments. The Working Capital required balance remains unchanged at 8.33\% (30 days).

# Section D - Additional Consolidated Financial Statements 2015 Business Plan and Budget 



## Section D

## Statement of Financial Position



## Section D - Additional Financial Statements



|  | NPCC <br> Statement of Activities 2015 Budget | CS Division Total | Criteria Services Total | Criteria Development | Criteria Assessment | General and Administrative |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Funding |  |  |  |  |  |  |
| ERO Funding |  |  |  |  |  |  |
|  | ERO Assessments | - | - |  |  |  |
|  | Penalty Sanctions | - | - |  |  |  |
| Total ERO Funding |  | - | - | - | - | - |
|  |  |  |  |  |  |  |
|  | Membership Dues | 1,035,221 | 1,035,221 | 562,072 | 567,370 | $(94,220)$ |
|  | Testing Fees | - | - | - | - | - |
|  | Services \& Software | - | - | - | - | - |
|  | Workshops | - | - | - | - | - |
|  | Interest | - | - | - | - | - |
|  | Miscellaneous | - | - |  |  |  |
| Total Funding (A) |  | 1,035,221 | 1,035,221 | 562,072 | 567,370 | $(94,220)$ |
| Expenses |  |  |  |  |  |  |
| Personnel Expenses |  |  |  |  |  |  |
|  | Salaries | 369,319 | 369,319 | 170,163 | 199,156 | - |
|  | Payroll Taxes | 22,681 | 22,681 | 10,708 | 11,973 | - |
|  | Benefits | 76,900 | 76,900 | 25,418 | 51,482 | - |
|  | Retirement Costs | 145,639 | 145,639 | 71,832 | 73,807 | - |
| Total Personnel Expenses |  | 614,539 | 614,539 | 278,121 | 336,419 | - |
|  |  |  |  |  |  |  |
| Meeting Expenses |  |  |  |  |  |  |
|  | Meetings | 10,000 | 10,000 | 5,000 | 5,000 | - |
|  | Travel | 63,000 | 63,000 | 48,000 | 15,000 | - |
|  | Conference Calls | - | - | - | - | - |
| Total Meeting Expenses |  | 73,000 | 73,000 | 53,000 | 20,000 | - |
|  |  |  |  |  |  |  |
| Operating Expenses |  |  |  |  |  |  |
|  | Consultants \& Contracts | 30,000 | 30,000 | 25,000 | 5,000 | - |
|  | Office Rent | - | - | - | - | - |
|  | Office Costs | - | - | - | - | - |
|  | Professional Services | - | - | - | - | - |
|  | Miscellaneous | 2,000 | 2,000 | 1,000 | 1,000 | - |
|  | Depreciation | 10,011 | 10,011 | 5,005 | 5,006 | - |
| Total Operating Expenses |  | 42,011 | 42,011 | 31,005 | 11,006 | - |
|  |  |  |  |  |  |  |
|  | Total Direct Expenses | 729,550 | 729,550 | 362,126 | 367,425 | - |
|  |  |  |  |  |  |  |
| Indirect Expenses |  | 409,902 | 409,902 | 204,951 | 204,951 |  |
|  |  |  |  |  |  |  |
| Other Non-Operating Expenses |  | - | - | - | - | - |
|  |  |  |  |  |  |  |
| Total Expenses (B) |  | 1,139,452 | 1,139,452 | 567,077 | 572,376 | - |
|  |  |  |  |  |  |  |
| Change in Assets |  | $(104,231)$ | $(104,231)$ | $(5,005)$ | $(5,006)$ | (94,220) |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Fixed Assets |  |  |  |  |  |  |
| Depreciation |  | $(10,011)$ | $(10,011)$ | $(5,005)$ | $(5,006)$ | - |
| Computer \& Software CapEx |  | - | - | - | - | - |
| Furniture \& Fixtures CapEx |  | - | - | - | - | - |
| Equipment CapEx |  | - | - | - | - | - |
| Leasehold Improvements |  | - | - | - | - | - |
|  |  |  |  |  |  |  |
| Allocation of Fixed Assets |  | - | - | - | - | - |
|  |  |  |  |  |  |  |
| Inc (Dec) in Fxed Assets ( $C$ ) |  | $(10,011)$ | $(10,011)$ | $(5,005)$ | $(5,006)$ | - |
|  |  |  |  |  |  |  |
| TOTAL BUDGET ( $=\mathrm{B}+\mathrm{C}$ ) |  | 1,129,441 | 1,129,441 | 562,072 | 567,370 | - |
|  |  |  |  |  |  |  |
| TOTAL CHANGE IN WORKING CAPITAL (=A-B-C) |  | $(94,220)$ | (94,220) | - | - | $(94,220)$ |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| FTEs |  | 2.14 | 2.14 | 1.07 | 1.07 | 0 |

2014 Budget Staff Allocations - RE Division


2015 Budget Staff Allocations - RE Division


2014 Budget Staff Allocations - CS Division


### 2.14

2015 Budget Staff Allocations - CS Division


# NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION 

## 2015 BUSINESS PLAN AND BUDGET FILING

## ATTACHMENT 4

## DISCUSSION OF COMMENTS RECEIVED

## DURING DEVELOPMENT OF NERC'S

2015 BUSINESS PLAN AND BUDGET

## ATTACHMENT

## DISCUSSION OF COMMENTS RECEIVED DURING DEVELOPMENT OF NERC'S 2015 BUSINESS PLAN AND BUDGET

During the preparation of its 2015 Business Plan and Budget, NERC posted several drafts on its website for stakeholder review and comment. Formal comments were solicited on the first and second drafts. The final draft was posted as part of the agenda for the open Finance and Audit Committee meeting, during which an opportunity for comments from stakeholders was provided. In addition, the NERC Board of Trustees invited stakeholders to provide policy input on the 2014 Business Plan and Budget. Copies of the comments and policy input received were posted on NERC's website. ${ }^{1}$

Comments on Draft \#1 of the NERC Business Plan and Budget were received from Edison Electric Institute ("EEI"), the Canadian Electricity Association ("CEA"), the National Rural Electric Cooperative Association, the Northwest Public Power Association, and (jointly) the American Public Power Association, the Large Public Power Council and the Transmission Access Policy Study Group. Comments on Draft \#2 of the NERC Business Plan and Budget were received from EEI and the CEA. NERC regarded these comments as generally supportive, although commenters raised some specific issues and questions. As NERC considered participation in the Cyber Risk Information Sharing Program, the comments included questions about the impacts of and funding for CRISP. NERC addressed the comments and questions in its final Business Plan and Budget, as well as during the webinar presentation associated with the posting of Draft \#2 of its Business Plan and Budget and during the final presentation of its recommended Business Plan and Budget before the NERC Finance and Audit Committee at its open August 13, 2014 meeting.

During the February 2014 meetings of the NERC Member Representatives Committee and Board of Trustees, management indicated it would be developing and posting an Accountability Matrix to track stakeholder recommendations and policy input, as well as management's actions and response to this input. The Accountability Matrix is posted on NERC's Website on the Business Plan and Budget page ${ }^{2}$ and will be updated on a quarterly basis. The remainder of this Attachment is the most recently-updated version of the Accountability Matrix, updated as of August 12, 2014. It shows NERC's responses and action items to the stakeholder comments received on Draft \#1 and Draft \#2 of the 2015 Business Plan and Budget, as well as NERC's responses and action items to policy input received from stakeholders.

[^47]
## ERO Enterprise Strategic Plan, 2014-2017

Goal 5: Improve transparency, consistency, quality, and timeliness of results; operate as a collaborative enterprise; and improve efficiencies and costeffectiveness.

Objective 5a - The ERO acts in a coordinated and collaborative manner with stakeholders.
Key deliverable - Maintain a list of suggestions and recommendations made by stakeholders (e.g., through policy input) and ERO responses to each.

## Strategic and Business Planning Input

| Entity / Stakeholder (Date) |  | Stakeholder Comment (Abridged version) | Action/Response and Notes |
| :---: | :---: | :---: | :---: |
| CEA | Business Plan \& Budget (Draft 2 comments) | CEA recommends that, where NERC management makes trade-offs or conducts prioritization exercises to help mitigate the impact of new initiatives or requirements, NERC provide greater disclosure of the risks considered, the business impacts, and quantitative impacts of the options considered. | NERC will take this into consideration in the development of the 2016 BP\&B. |
|  |  | For purposes of future budget cycles, CEA recommends that NERC publish projected entity assessments so they are available to entities and can assist in informing comments on the draft budget. | Providing assessment information on an individual load serving entity basis earlier will require that NERC receive updated NEL data from the Regional Entities earlier and this will be difficult given timing of business plan and budget cycle. |
|  |  | CEA agrees that this sharing formula may need to be refined based on experience and participation, and would support discussion to this effect as part of the 2016 budget cycle. Moreover, with the CRISP budget for the ES-ISAC appearing to assume a certain number of program participants, CEA believes that any funding shortfall risk related to subcontracting or other relevant costs should not be borne by NERC. | The contracts which are being negotiated take this into consideration. NERC will not be in a position of taking the risk of future utility participation. |
|  |  | CEA recommends that NERC develop projections of ongoing CRISP-related costs, and provide these in the final draft of the 2015 budget. | NERC has included a discussion of the CRISP projections in the final draft of the 2015 BP\&B. |
|  |  | As the 2015 budget is finalized, CEA respectfully recommends that NERC examine options for efficiencies or trade-offs to offset cost impacts associated with CRISP. | NERC undertook this examination in arriving at the proposal for limited CRISP funding through assessments. |
| CEA | Business Plan \& Budget (Draft 1 comments) | Concerned about facing an assessment increase of a substantial margin. Looks for greater stability in NERC assessments. | Considerable efforts were undertaken by NERC and the Regional Entities to minimize assessment impacts. An initiative is also being launched to stabilize assessments and reduce the swings experienced by the industry from year to year. |



|  |  | Questions whether alignment between registration and the newly approved BES <br> Definition should really be identified as a "High Priority" since we are unaware <br> of any imminent risks associated with entity registration. | RBR is focused on ensuring that registered entities <br> are appropriately registered and assigned the proper <br> set of standards to ensure reliability. RBR is <br> complementary to, and aligned with, the BES <br> Definition. Ensuring effectiveness and efficiencies in <br> program areas and driving consistent application <br> throughout the ERO Enterprise are properly high <br> priorities for the ERO Enterprise. As the RBR work <br> continues, we will ensure that we articulate the <br> relationship with the BES Definition. |
| :--- | :--- | :--- | :--- |
| NRECA |  <br> Budget (Draft 1 <br> comments) | Requests that the BP\&B clearly state that all entities which have signed up for <br> ES-ISAC portal access, not only NERC registered entities, will receive and have <br> access to CRISP and other security information and analysis at no additional cost <br> above the net energy for load assessment. | Final draft of BP\&B makes clear that ES-ISAC <br> registered users will have access to CRISP derived <br> data. |
| Requests that NERC clarify who is an ES-ISAC member (any entity who signs up |  |  |  |
| and is approved for ES-ISAC portal access). In the third line of the "Secure |  |  |  |
| Bidirectional Communications" section, NRECA requests that "registered |  |  |  |
| entities" be replaced with "ES-ISAC members" as NRECA understands the term. |  |  |  |$\quad$| Corrected in final draft. |
| :--- |
| APPA/LPPC/ |
| TAPS |

## 2014 Accountability Matrix

| CEA <br> (April 2014) | Business Plan \& Budget (ES-ISAC) | Requests clarity regarding the alternative voluntary funding for ES-ISAC: <br> - What are the reliability benefits of the expanded capability? <br> - Are there questions/ concerns regarding fair allocation of costs under the ES-ISAC's funding structure? <br> - Is there a risk of establishing a precedent for seeking outside, voluntary funding for an activity under NERC's statutory functions? <br> - How will NERC ensure registrants do not unfairly subsidize the expanded activities where other entities derive a benefit? <br> - Do all of the separate pieces of the proposal have to be covered under new, supplemental outside funding? Suggests drawing on NERC reserves to cover a portion of these expenses. <br> - What decision-making mechanisms has NERC implemented to guide the transition towards an alternate funding mechanism? <br> - How do the estimated expenses associated with supplemental ES-ISAC funding fit into the overall ERO budget? | See draft 2 and final draft of the Business Plan and Budget. |
| :---: | :---: | :---: | :---: |
|  |  | Imperative for the debate around the ES-ISAC's existing funding and governance structure be settled before committing to additional funding for expanded ESISAC capabilities and operations. | Funding and governance structure addressed in the Business Plan and Budget. |
|  | NERC Five-Year Performance Assessment | Requests including more detail around, or basic acknowledgment of, growth in NERC's budget, stakeholders' enduring concerns and NERC's plans to control costs going forward in the five-year assessment. | Annual business plans and budgets and presentations have reflected and will continue to reflect ongoing efforts to control costs. |
| EEI <br> (April 2014) | Business Plan \& Budget (ES-ISAC) | Propose additional stakeholder outreach regarding ES-ISAC's proposed 2015 budget, including a breakdown of scope of work, costs and timing, for its role in CRISP to help inform and expedite the funding approach suggested. | See draft 2 of the Business Plan and Budget. |
| IRC (April 2014) | Business Plan \& Budget | Need more information with respect to how the alternative funding mechanism, to support expanded security capabilities, relates to the overall NERC fee structure and the risk of unfunded mandates. | See draft 2 of the Business Plan and Budget. |
| NPCC <br> (April 2014) | Business Plan \& Budget | Recommends that the NERC 2015 Business Plan include descriptions of NERC's oversight role to provide better certainty to performance metrics and that NERC include the projected resource impacts to registered entities of proposed initiatives in its annual business plans. | NERC's oversight role is explained in a number of areas throughout the BP\&B. Additional detail for the oversight program will be developed as part of implementation of the ERO enterprise operating model action items. Work to assess projected resource impacts on registered entities is ongoing. |
|  |  | Recommends that the sharing of security information be funded within the NERC budget. | To be considered by NERC management in the development of the $2^{\text {nd }}$ draft of the 2015 BP\&B. |
| NRECA (April 2014) | Business Plan \& Budget (ES-ISAC) | Requests clarification that the alternative funding mechanism for expanded security capabilities is not a pay to play arrangement. Information gained with any new capabilities should be shared with all industry participants regardless of whether financial support is provided. | Addressed in the $2^{\text {nd }}$ draft and final postsing of the 2015 BP\&B. |

## 2014 Accountability Matrix

| Sector 4 (April 2014) | Business Plan \& Budget (ES-ISAC) | Requests further investigation into the feasibility of ES-ISAC participation in the CFM and CRISP programs, and to share with stakeholder's probable costs and benefits at a future date. | Addressed in the $2^{\text {nd }}$ draft and final postsing of the 2015 BP\&B. |
| :---: | :---: | :---: | :---: |
|  |  | If voluntary funding is pursued, requests that NERC guarantee that no entity could buy a benefit for itself. | Addressed in the $2^{\text {nd }}$ draft and final postsing of the 2015 BP\&B. |
| Sector 12 <br> (April 2014) | Business Plan \& Budget | Requests further update regarding efforts in 2014 relative to cost-benefit tools incorporated into NERC activities, including the status of the CEAP project. <br> - Concerned that some of the expedited standard setting processes in play right now will shift focus away from this important initiative to quantify the impact of NERC standards. | The BP\&B describes the development of a twophased Cost Effective Analysis Process (CEAP) to ensure that the standards development process produces standards that cost-effectively address reliability gaps. The first phase of the CEAP is implemented during the Standards Authorization Request (SAR) stage to determine the cost impact of a proposed standard and whether it will meet or exceed an adequate level of reliability. The second phase is completed later in the standard development process to determine cost effectiveness of the proposed approach and offer the industry an opportunity to identify more cost efficient solutions. <br> NERC and the Standards Committee are now reviewing the results of the pilot effort determining the usefulness of this approach, and enhancements needed towards measuring potential benefits from Reliability Standards. A CEAP team, comprised of NERC Standards Committee and Standards Committee Process Subcommittee members, along with industry and NERC staff, continue to participate in the CEAP to promote information sharing and consensus and alleviate concerns regarding cost and effectiveness. |
| SERC <br> (April 2014) | Business Plan \& Budget (ES-ISAC) | Recommends that the ES-ISAC be required to present a robust business plan that ensures goals are sustainably deliverable. | See draft 2 of the Business Plan and Budget. |
| SM-TDUs(April 2014) | Business Plan \& Budget (ES-ISAC) | Expanded funding should be included within NERC's section 215 Business Plan and Budget and annual assessments to load-serving entities. | Addressed in the $2^{\text {nd }}$ draft and final posting of the 2015 BP\&B. |
|  |  | If and when NERC or the ES-ISAC undertakes analytical projects that do not provide broad benefits to the electricity sector as a whole, those costs should be directly assigned to the beneficiaries, with the revenues received credited to NERC's operating reserves, thereby reducing next year's NERC budget assessment on load-serving entities. | See draft 2 and final draft of the Business Plan and Budget. |

## 2014 Accountability Matrix

| CEA <br> (Jan 2014) | Business Plan \& Budget | Goal 4: Determine if there can be a deliverable to identify and develop a suite of tools to address reliability issues (as alternatives to standards). | Under consideration by NERC management and referred to RISC and standing committees for input. |
| :---: | :---: | :---: | :---: |
|  |  | Goal 5: Recognize the obligations to all applicable governmental authorities and modify to indicate "all applicable authorities". | Agreed. Processes are in place to coordinate with both US and Canadian government authorities. |
|  | Strategic Plan | Requests that NERC present \# of new or modified standards to NERC BOT for approval. | Addressed in the standards development plan. |
| $\begin{aligned} & \text { EEI } \\ & \text { (Jan 2014) } \end{aligned}$ | Business Plan \& Budget | Include a strategic internal management goal with clear accountability of goals and objectives, deliverables and meaningful metrics. | Already in place with integration of NERC metrics to NERC performance management system. |
|  | Business Plan \& Budget | Map existing program area plans and processes to strategic plan. Specifically, how NERC's plan complements or conflicts with the standards development work plan or the RISC's proposal to address reliability issues. | NERC's priorities for the standards review process are addressed on an ongoing basis and reflected in the Reliability Standards Development Plan developed in collaboration with the Standards Committee. RISC coordination is ongoing in 2014 and will be reflected in plans for 2015. |
|  | Business Plan \& Budget | Align various metrics with goals and deliverables. <br> - Set clear and measurable metrics for regulatory outreach and advocacy. | Regulatory outreach and advocacy are embedded in our normal work processes and aligned with key initiatives. Consideration to specific metrics for this area will be given for future years. |
| $\begin{aligned} & \hline \text { SM-TDUs } \\ & (\operatorname{Jan} 2014) \end{aligned}$ | Business Plan \& Budget | Define measures by which the Regional Entities and NERC will evaluate entity risk (as part of RAI). | Will be addressed in the ongoing implementation and development of RAI. |
| NRECA <br> (Jan 2014) | Business Plan \& Budget | Recommend replacing BPS with BES throughout the plan | Adopted. NERC updated the Board approved (Feb 6) Strategic Plan replacing BPS throughout. |
|  |  | Goal 1: Include the SC role and focus on retiring standards and requirements that are not needed to support BES reliability. | The Standards Committee's role in the standards review process will be addressed as part of developing the long term quality review process. |
|  |  | Goal 2: Include deliverable to add a deregistration process for currently registered entities that have a change. Also add a deliverable that requires development of a single document/resource that describes RAI. | Adopted. NERC updated the Board approved (Feb 6) Strategic Plan adding deregistration. |
|  |  | Goal 4: Add SC responsibilities. | Standards Committee's responsibilities in the standards development process will be addressed on an ongoing basis. |
|  | Strategic Plan | Consider the challenges of too many initiatives in play at any one time and focus on doing less, better. | Agree and will continue to work with stakeholders to pace initiatives. |
| $\begin{aligned} & \text { EPSA } \\ & (\operatorname{Jan} 2014) \end{aligned}$ | Business Plan \& Budget | Combine metric 1 and 2. These metrics seem interrelated as to not represent two different metrics to score and evaluate. | Not adopted. Metric 1 measures the effectiveness of the ERO Enterprise to influence reliability overall as measured by the frequency and severity of events. Metric 2 focuses on conducting analysis of severe |

## 2014 Accountability Matrix

|  |  |  | events to assess whether there are gaps in reliability standards as currently in force or compliance monitoring on the part on the ERO. Both metrics are focused on accountability of the ERO Enterprise to influence reliability and reduce the occurrence of severe events. |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { ELCON } \\ & (\operatorname{Jan} 2014) \end{aligned}$ | Business Plan \& Budget | Encourage specific metrics to allow the measurement of: <br> - Maintain a list of suggestions made by stakeholders and ERO responses <br> - Engage expertise of stakeholders in reliability initiatives <br> - Implement collaborative governance (ERO and Regions) bound by consensus | 1. Not appropriate for a "metric," but we agree conceptually. <br> 2. Not appropriate for a "metric," but engagement of industry expertise and stakeholders is an essential component of the ERO mission. <br> 3. Not appropriate for a "metric," but that governance exists in the form of the ERO EMG, which is comprised of the CEOs of all nine entities. |
| Standards <br> Committee, <br> Brian <br> Murphy <br> (Jan 2014) | Business Plan \& Budget | Goal 1: Revise to align with the RSDP and SC's work plan (refer to policy input attachment) | Adopted. |
| NPCC <br> (Jan 2014) | Business Plan \& Budget | Recommends the implementation of the registration framework and criteria be advanced to 2015 to better align with the implementation of the BES definition. | To be considered during the registration initiative project and will be reflected in the development of the 2015 BP \&B if time permits. |
|  | RRM | Recommends prioritization be given to the development of a secure portal to enable confidential sharing of post-event report. | The portal is in place as is the process for vetting and gaining permission from entities. |
|  | List of approved risk projects for metric 3 | Limit any risk project related to resource adequacy assessments of the reliability impacts of planned resource capacity and projected reserve margins. | That is the intent of that RISC identified project. Resource adequacy was not selected as a major 2014 risk project for the ERO Enterprise. Will be considered in future updates to the risk projects. |
| SERC <br> (Jan 2014) | Business Plan \& Budget | Encourages ERO Enterprise to conduct a clean slate review of the strategic plan's content with a particular focus beyond the current 3 year horizon. | To be discussed with ERO EMG. |
|  |  | Encourages further coordination of processes and timelines for "feeder" activities which are significant inputs into the business planning processes (RISC, LTRA, etc.). | Will be addressed in ongoing improvement to $\mathrm{BP} \& \mathrm{~B}$ process between NERC and the Regional Entities. |
| MRC BP\&B Input Group (Jan 2014) | Business Plan \& Budget | Add important MRC meeting and conference call dates to BP\&B schedule. | NERC staff updated BP\&B schedule prior to the Jan 30 Finance and Audit Committee meeting to reflect this input. |


| $\begin{aligned} & \hline \text { EEI } \\ & (\operatorname{Jan} 2014) \end{aligned}$ | Business Plan \& Budget | Describe/ address budget and cost management, coordination among the core operational areas and duplicative activities among the Regions. <br> - Consider cost-benefit analysis, similar to Standards, to help inform decisionmaking and determine priorities for limited resources. | Reviewed in the context of the annual BP\&B process. |
| :---: | :---: | :---: | :---: |
| Sector 4 <br> (Jan 2014) | Business Plan \& Budget | Consider cost impacts to industry. There are mounting pressures to manage costs and minimize rate impacts to customers. NERC must ensure resources are spent appropriately. | Reviewed in the context of the annual BP\&B process. |
| ELCON <br> (Jan 2014) | Business Plan \& Budget | Specific "IT solution" benefits to Registered Entities should be quantified through cost savings in dollars. Strongly encourages restraint in the amount that will be proposed and recommends keeping the amount level if not reduced. | Reviewed in the context of the annual BP\&B process. |
| $\begin{aligned} & \text { IRC ISO/RTO } \\ & (J a n ~ 2014) \end{aligned}$ | 2014 Metrics | Consider developing a structured approach and metrics for exploring and applying alternative approaches to standards <br> Work with the RISC on an approach that expands on the suite of tools. | Under consideration by NERC management and referred to RISC and standing committees for input. <br> NERC uses various forms to address reliability issues: RISC, technical committees, and staff analysis. NERC has a suite of tools at its disposal to address reliability issues when identified to include, but not limited to, technical committee guidelines, NERC advisories and alerts, webinars, training, lessons learned, and various reliability assessments. |
| NPCC <br> (Jan 2014) | Business Plan \& Budget | Identify "benefits" associated with standards to provide more information surrounding standards' costs vs. benefits. | Efforts are underway to consider cost benefit in the standards development process. |
| Texas RE (Jan 2014) | Business Plan \& Budget | Requests there be additional clarity and transparency regarding amounts that the Regional Entities will be expected to expend to support specific enterprise efforts. <br> - If particular ERO-level projects are required the amounts should be identified and incorporated into the Regional Entities' budgets. | Addressed through the coordination and development of the NERC and Regional Entities BP\&Bs. |
| $\begin{aligned} & \text { SERC } \\ & (\operatorname{Jan} 2014) \end{aligned}$ | Business Plan \& Budget | Resource needs and budgets should reflect the stable nature of the enterprise. Effectiveness parameters, including cost, should be established for ERO activities. | Addressed through the coordination and development of the NERC and Regional Entities BP\&Bs. |
| RISC <br> (Jan 2014) | Business Plan \& Budget | Encourages the inclusion of more explicit focus on reliability risk management and RISC's priority recommendations in the BP\&B. | RISC intends to produce its next recommendations in February 2015 for the 2016 BP\&B. |
| Other Input - Related to ERO Enterprise Activities and Priorities |  |  |  |
| Entity / <br> Stakeholder <br> (Date) |  | Stakeholder Comment (Abridged version) | Action/Response and Notes |

## 2014 Accountability Matrix

| CEA <br> (April 2014) | RSAW Review and Revision Process | Requests clarification in subsequent refinements to the draft RSAW process: <br> - An RSAW should not change the scope or intent of a standard. Delete the word "material". <br> - Clarify that RSAW changes cannot increase compliance requirements. <br> - Provide examples of what is deemed to be a "substantive" revision. <br> - Provide some type of implementation schedule. <br> - Provide justification if SOTC chair of full SOTC determines no action is required for the remaining comments submitted to them for review. Identify an appeal process beyond the SOTC for entities which feel that their comments or concerns have not been adequately addressed by either the SOTC Chair or the full SOTC. | The final version of the process has been revised to: <br> - Remove the terms material and substantive. <br> - Clarify the wording around changes increasing compliance requirements. <br> - Allow for an implementation schedule. <br> - Include a requirement for the SOTC chair to notify industry the status of his/her review and for NERC to post a summary of the SOTC's determination. <br> Final version is being implemented by NERC's Compliance Operations. |
| :---: | :---: | :---: | :---: |
|  | Risk-Based Registration Initiative | Requests the Preface of the Risk-Based Registration Whitepaper reference the authority of Canadian jurisdictions to provide entity registration/ oversight. | The current draft design framework recognizes Applicable Governmental Authority jurisdiction, including the U.S. and Canada. |
|  |  | Any option to revise standards should be coordinated with existing standards revision efforts, wherever possible. | To the extent that Reliability Standards need to be revised as a result of the design framework, this will be addressed in the detailed implementation plan and reflected in the Reliability Standard Development process. |
| $\begin{aligned} & \text { EEI } \\ & \text { (April 2014) } \end{aligned}$ | Risk-Based Registration Initiative | Urges the Board to ensure that any new registration process avoids developing into another costly and opaque bureaucracy. | The new registration process is expected to be more efficient and effective and to reduce undue burdens for all reliability stakeholders. |
|  | RSAW Review and Revision Process | Urges NERC to continue seeking processes and methods that provide companies with clear compliance guidance and stresses the importance for NERC to make sure that RSAWs not inadvertently change FERC-approved requirements, and, once approved, that RSAW documents not receive any further editorial treatment outside the RSAW process. | The new RSAW process will provide a platform for industry comment and enhancement. Additionally, using the CIP V5 transition as a template, NERC is looking to further improve guidance to support both transition and implementation of new standards. |
|  | CIP V5 Implementation | Urges NERC to begin a focused discussion aimed at developing a complete set of guidance materials by no later than August 2014. | NERC is developing these plans and materials. |
|  |  | Urges NERC to develop, communicate, and execute a single plan for CIP V5 guidance materials as an urgent priority. | NERC is developing these plans and materials. |
| ELCON <br> (April 2014) | Risk-Based Registration Initiative | Seeks clarification on the important point that the RBR initiative should focus on reducing unnecessary registrations as a threshold matter, as well as on reducing the compliance scope for entities that are registered but should not be subject to the full GO/GOP or TO/TOP requirements. | RBR is focused on ensuring that registered entities are appropriately registered and assigned the proper set of standards to ensure reliability. RBR further drives consistent application throughout the ERO Enterprise. |
|  |  | Suggests that risk-based registration allow behind-the-meter generators to exceed the thresholds if such sales are deemed to be free of any negative impacts to reliability. | The proposal is reflected in the current draft of the design document. |

## 2014 Accountability Matrix

|  |  | Suggests that the compliance burden of the small entities could be further reduced by having different audit schedules (as part of the RAI). | RAI considers size, nature and location of entities, among other factors, in determining the duration and scope of an audit. |
| :---: | :---: | :---: | :---: |
|  | RSAW Review and Revision Process | Additional steps should be mandatory when feedback from an industry stakeholder established that the modification is inconsistent with the scope or intent of the standard. Evidence of such inconsistency should be more than mere opinion and in the event that the industry stakeholder's position is rejected, the ERO Enterprise should issue a written response so that, if appropriate, the decision can be appealed. | A requirement was added to the process for NERC to post a summary of the SOTC's determination. |
| Merchant <br> Electricity <br> Generator <br> and <br> Electricity <br> Marketer <br> Sectors <br> (April 2014) | RSAW Review and Revision Process | Effective date should be an agreed upon fixed period after the RSAW is approved and not the subject of individual comments. | A requirement was added to the process. |
|  |  | RSAWs should not apply to open audits or any entity that has received its 90day notification of an audit. | A requirement was added to the process. |
|  |  | What is sent to the SOTC chair should be posted for all stakeholders and a requirement for posting should be added to paragraph 3 of the process. | A requirement was added to step 3 of the process to post the unresolved comments that are sent to the SOTC chair on the NERC website. |
|  |  | The proposed process should also apply to an RSAW for a new standard. | Currently RSAWs are posted alongside all Reliability Standards. Working together, RSAWs should include the intent of the SDT. Else changes to the Standard and RSAW can bring these into alignment. |
|  |  | Suggests that the Board consider whether RSAWs are needed to ensure consistent compliance and if so, RSAWs should be based solely on the measures in a standard that are developed through the standards process. | RSAWs are only a tool for the Auditor, and not the full extent of tools available. |
|  | Risk-Based Registration Initiative | Develop simple criteria that can be used to quickly eliminate entities from the Registry that do not have a material impact on reliability. This would be analogous to a P81 approach. | Simple criteria for registration and deactivation of an entity for functional registration categories have been developed and are reflected in draft revisions to the NERC Rules of Procedure. |
|  |  | Recommend a detailed project plan be developed and communicated to industry regarding the implementation of the entire risk-based registration initiative in 2016. | A detailed project plan and communication plan are included in the latest draft Implementation Plan. |
| IRC <br> (April 2014) | RSAW Review and Revision Process | Recommends that the proposed RSAW Process be amended to add: <br> (1) An initial step that addresses how registered entities raise issues with existing RSAWs and suggests using a CCC subcommittee to review and assess whether an RSAW needs to be modified; and (2) An added step if comments were not accepted. After the revised RSAW is posted, comments not accepted could be reviewed by the CCC subcommittee to determine if: a) A technical error or inaccuracy regarding the proposed change is identified in the submitted comments; or b) The submitted comments identify that the proposed change incorrectly expands what is required by the Standard through its requirements. | The RSAW Review and Revision process document addresses each one of these through a formalized process related to the ongoing maintenance of RSAWs. |

## 2014 Accountability Matrix



|  |  | question for the full SOTC if they review RSAW. How will industry learn of the SOTC Chair's decision on who will review RSAW revisions? <br> - Is the SOTC the appropriate committee to perform this role? Should it be the BOTCC? <br> - Need further explanation regarding the retroactive nature of compliance requirements. | comments from NERC staff and for NERC to post a summary of the SOTC's determination. <br> - The Board agreed that the SOTC is the right committee. <br> - The revised RSAWs will not be retroactive. |
| :---: | :---: | :---: | :---: |
|  |  | Recommend that NERC consider making the posting of RSAWs, with new or revised standards posted for comment/ballot, a required action for the NERC Compliance and Enforcement department. | NERC is posting RSAWs while Standards are posted and before the start of a ballot period for a new or revised standard. |
|  |  | Focus of the working group should be expanded to address potential NERC Rules of Procedure (ROP) modifications to address the need for RSAWs to be posted at the same time a new or revised standard is posted for comment/ballot. | NERC is taking this up as a policy issue. No Rules of Procedures changes are needed. |
|  | Risk-Based Registration Initiative | Recommend close examination of the risk-based registration initiative: <br> - Replace BPS and 100 kV with BES throughout the SCRC <br> - Reduce the number of undefined terms in the SCRC <br> - Add simple and straightforward procedures to the NERC ROP for deregistration based on self-determined application of the current and future SCRC. <br> - Add procedures to the NERC ROP for exceptions to the self-determined application of the current and future SCRC. <br> - Review current MW, kV and other thresholds/criteria to determine if changes are supported. <br> - Assess whether the use of automatic protective devices should impact whether an entity should be registered. <br> - Renew focus on revising the applicability language for existing standards and those under development. <br> - For entities with minimal compliance responsibilities, consider replacing mandatory six-year audits with self-certifications and spot checks. <br> - Eliminate the requirement for entities to submit unnecessary and repetitious attestations certifying that certain standards continue not to apply to them. | Each of these issues is addressed in the current design framework and implementation plan. |
| REMG <br> (April 2014) | Risk-Based Registration Initiative | - Initially target the DP, PSE, and LSE functions. <br> - Threshold criteria must consider risk based on past performance and potential harm in the future. <br> - Risks must include consideration of the aggregate effects of removing subsets of Registered Entities and/or functions and assessing their respective impacts to reliability. <br> - Reclassifying TOs as DPs or developing multiple thresholds for other functions may overcomplicate the registration process and have | The current design and implementation plan address these issues. |

## 2014 Accountability Matrix

|  |  | unintended consequences such as creating ambiguity in the applicability of <br> certain standards. <br> Attempting to define regulatory oversight in a "global" manner with diverse <br> and unique entities through the registration process may unintentionally <br> overlook specific risks which impact reliability. <br> The proposed changes to registration may have the effect of replacing a <br> "one-size fits all" approach with a "two or three sizes fits all" approach and <br> may make registration much more complex for Registered Entities. |  |
| :--- | :--- | :--- | :--- | :--- |

## 2014 Accountability Matrix

| CEA <br> (Jan 2014) | CIP Version 5 | Clarify whether the proposed application of the U.S. Department of Energy's <br> Electricity Subsector Cyber Security Capabilities Maturity Model (ES-C2M2) is <br> intended to be globally applied as a de facto compliance instrument. | No, ES-C2M2 will not be used as a compliance <br> instrument. |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Risk-Based <br> Registration <br> Assessment | Examine where efficiencies can be gained and where resources can be better <br> focused on core reliability priorities. <br> (Jan 2014) <br> Focus on registration criteria for PSEs. | The current design proposes elimination of PSEs and <br> seeks to implement efficiencies in the registration <br> Assurance <br> Initiative | Fully implement the RAI before the implementation date of CIP v5, ensure the <br> completion of regional pilots by mid-2014, and address compliance process <br> issues and expectations for entities operating in multiple regions. |


|  | CIP Version 5 | Complete RAI before standards become effective. | This is the ERO's goal. |
| :---: | :---: | :---: | :---: |
|  |  | Reach out to industry and explain how a compliance approach developed with RAI principles will address the industry's previous concerns regarding "zero tolerance." | NERC is developing a broader approach and plan for discussion at the August MRC meeting. |
|  | Risk-Based Registration Assessment | Suggests approaches that can be used in combination to achieve a risk-based approach to registration: <br> - Increase the size thresholds or add new refining criteria to limit registration of entities that do not perform core BES reliability functions. <br> - Use the GO-TO model to address the limited BES reliability impacts of DPs with limited BES transmission elements, by extending the applicability of certain requirements to such DPs, rather than registering such entities as TO/TOPs. <br> - Reexamine the need for registration of entities performing functions that seem to have an insignificant reliability impact (i.e., PSEs). | The current draft design and implementation plan address these issues. |
| NRECA <br> (Jan 2014) | Volume of NERC Initiatives | Attention is still needed on reducing the amount of comment requests, ballots and other review activities that are out for stakeholder attention at any one particular time. | NERC has consolidated requests and reduced the number of items out for comment at any given time. NERC will continue to monitor the number of ongoing and potential initiatives, so as not to overload industry and stakeholders. |
|  | Risk-Based Registration Initiative | Develop a revised Statement Compliance Registry Criteria (SCRC) and other needed ROP modifications for BOT approval at its November 2014 meeting. <br> - Develop a project plan with timelines and milestones. | The current draft design and implementation plan address these issues. |
|  | COM-002-4 | Recommends that modifications be made to the current draft standard as it relates to applicability for DPs to match the DP applicability in the recently FERC-approved CIP-003-5. | The OPCP SDT included these Functional Entities in the Applicability section because they can be and are on the receiving end of some Operating Instructions. The OPCP SDT determined that it would leave a gap to not cover them in a standard that addresses communications protocols for operating personnel. |
|  |  | Recommends removing the "assess adherence and assess effectiveness" language from R4 in the draft standard. | Requiring entities to assess and provide feedback to its operating personnel, was also included in the November 7, 2013 NERC Board of Trustees' resolution as an element to include in the standard. Further, the OPCP SDT believes that it is good operating practice for an entity to periodically evaluate the effectiveness of their protocols and improve them when possible. |
|  | CIP Version 5 | Progress and understanding of RAI needs to sufficiently advance prior to any CIP V5 ballots, in order to gain support for removing the IAC language. | Agree. |
| $\begin{aligned} & \hline \text { IRC ISO/RTO } \\ & (\text { Jan 2014) } \end{aligned}$ | COM-002-4 | Review and address comments/outstanding issues submitted through the standards development process to ensure an industry acceptable standard. | The standard drafting team reviewed and responded to all comments received. The responses to |

## 2014 Accountability Matrix



|  | COM-002-4 | Resolve discrepancy between M4 and R4 (practice in M4 appears to be beyond <br> the requirement by suggesting assessments and corrective actions must occur <br> more frequently than required by R4 which is "at least once every (12) calendar <br> months...") | The assessments and corrective actions are not <br> required to occur more than once every (12) calendar <br> months. The measure does not address frequency, <br> only that instances must be addressed. |
| :--- | :--- | :--- | :--- |
| EPSA <br> (Jan 2014) | CIP Version 5 | ES-C2M2 needs to be further studied to determine the validity of its <br> benchmarks for different entities. | Agreed. |
| Sector 4 <br> (Jan 2014) | CIP Version 5 | Rather than endorsing a single model (ES-C2M2), NERC should look to industry <br> working through organizations, such as NATF and NAGF, to develop and adhere <br> to best practices. | Agreed. |

2014 Accountability Matrix

# NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION 

## 2015 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 5<br>\section*{CALCULATION OF ADJUSTMENTS}<br>THE AESO 2015 NERC ASSESSMENT,<br>THE IESO 2015 NERC ASSESSMENT,

THE NEW BRUNSWICK 2015 NERC ASSESSMENT,

AND THE QUEBEC 2015 NERC ASSESSMENT

2015 Alberta Electric System Operator Adjustment

## Credit for NERC Compliance Costs

## Total NERC <br> Compliance Budget

AESO NEL Allocation 2015

Total NERC
Compliance Budget AESO NEL Allocation 2014

| NERC Compliance Budget |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Compliance Operations, Investigations \& Org Registration and Certification | \$ | 10,602,435 | \$ | 9,496,446 |
| Event Analysis |  | 4,203,169 |  | 4,048,371 |
| Enforcement |  | 5,806,866 |  | 6,395,091 |
| Total Compliance Budget, including Fixed Assets | \$ | 20,612,470 | \$ | 19,939,908 |
| AESO NEL Share (2013) |  | 1.350\% |  | 1.323\% |
| AESO Proportional Share of Compliance Costs, including Fixed Assets | \$ | 278,268 | \$ | 263,860 |
| Net Total Staff |  | 47.83 |  | 50.88 |
| \% Credit (41.85 of 47.83 FTEs) |  | 87.50\% |  | 88.60\% |
| \$ Credit (41.85 of 47.83 FTEs) | \$ | 18,035,373 | \$ | 17,666,884 |
| AESO credit for compliance costs | \$ | 243,478 | \$ | 233,782 |
| Additional Credits for 2015 |  |  |  |  |
| Credit for SAFNR | \$ | 459,609 | \$ | 531,825 |
|  | \$ | 459,609 | \$ | 531,825 |
| AESO NEL Share (2013) |  | 1.350\% |  | 1.323\% |
| AESO credit for additional costs not allocated | \$ | 6,205 | \$ | 7,038 |
| Total AESO Credit | \$ | 249,682 | \$ | 240,819 |


| 2015 FTEs |  |
| ---: | ---: |
| Total |  |
| 19.60 | $\underline{\text { Credit }}$ |
| 3.84 | 3.00 |
| 9.38 | 8.00 |
| 15.01 | 15.01 |
| 47.83 | 41.85 |
|  |  |
|  | $87.5 \%$ |
|  |  |
| 2014 FTEs |  |
| Total |  |
| 19.20 | $\underline{\text { Credit }}$ |
| 3.84 | 3.80 |
| 9.60 | 8.00 |
| 18.24 | 18.24 |
| 50.88 | 45.08 |

88.6\%

## 2015 IESO Adjustment

Credit for NERC Compliance Costs

|  | 2015 |  | 2014 |  |
| :---: | :---: | :---: | :---: | :---: |
| NERC Compliance Budget |  |  |  |  |
| Compliance Analysis, Certification and Registration | \$ | 4,864,863 | \$ | 3,784,438 |
| Regional Entity Assurance and Oversight | \$ | 5,737,572 | \$ | 5,712,007 |
| Event Analysis |  | 4,203,169 |  | 4,048,371 |
| Enforcement |  | 5,806,866 |  | 6,395,091 |
| Total Compliance Budget, including Fixed Assets |  | 20,612,470 |  | 19,939,907 |
| IESO NEL Share (2013) |  | 3.137\% |  | 3.156\% |
| IESO Proportional Share of Compliance Costs, including Fixed Assets | \$ | 646,517 | \$ | 629,303 |
| Total Compliance Staff |  | 47.83 |  | 50.88 |
| \% Credit (39.83 of 47.83 FTEs) |  | 83.27\% |  | 84.28\% |
| \$ Credit (39.83 of 47.83 FTEs) | \$ | 538,381 | \$ | 530,356 |
| Additional Credit for SAFNR Contract | \$ | 459,609 |  | 531,825 |
| IESO NEL Share (2013) |  | 3.137\% |  | 3.156\% |
| Additional Credit for SAFNR Contract | \$ | 14,416 | \$ | 16,784 |
| IESO Credit - NERC Costs, including Fixed Assets | \$ | 552,797 | \$ | 547,141 |
| Total NERC Assessment | \$ | 1,215,106 | \$ | 1,084,277 |

2015 New Brunswick Adjustment
Credit for NERC Compliance Costs

|  | 2015 |  | 2014 |  |
| :---: | :---: | :---: | :---: | :---: |
| NERC Compliance Budget |  |  |  |  |
| Compliance Operations, Investigations \& Org Registration and Certification | \$ | 10,602,435 | \$ | 9,496,446 |
| Event Analysis |  | 4,203,169 |  | 4,048,371 |
| Enforcement |  | 5,806,866 |  | 6,395,091 |
| Total Compliance Budget |  | 20,612,470 |  | 19,939,908 |
| New Brunswick NEL Share (2013) |  | 0.314\% |  | 0.311\% |
| NB Proportional Share of Compliance Costs, including Fixed Assets | \$ | 64,694 | \$ | 62,013 |
| Total Compliance Staff |  | 47.83 |  | 50.88 |
| \% Credit (41.83 of 47.83 FTEs) |  | 87.46\% |  | 86.64\% |
| \$ Credit (41.83 of 47.83 FTEs) | \$ | 56,579 | \$ | 53,725 |
| Additional Credits for 2015 - SAFNR Contract | \$ | 459,609 |  | 531,825 |
| New Brunswick NEL Share (2013) |  | 0.311\% |  | 0.311\% |
| Additional Credits for SAFNR | \$ | 1,429 | \$ | 1,654 |
| New Brunswick Credit - NERC Costs, including Fixed Assets | \$ | 58,008 | \$ | 55,379 |
| NERC Assessment | \$ | 119,221 | \$ | 105,191 |



# NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION 

## 2015 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 6

STATUS REPORT ON THE ACHIEVEMENT

OF NERC'S 2014 GOALS

## ATTACHMENT

## Status Report on the Achievement of NERC's 2014 Goals and Objectives

This Attachment provides a summary of NERC's 2014 goals and objectives and a status report on their achievement as of June 30, 2014.

NERC and the Regional Entities continued to improve and refine the ERO business planning and budgeting process through the development and integration of a multi-year Strategic Plan, which goes through an open and transparent stakeholder review process and is posted publicly on NERC's website. In 2014 NERC and the Regional Entities introduced a common set of ERO Enterprise performance metrics. These metrics are intended as indicators of the overall effectiveness of the ERO Enterprise in achieving its mission and the goals and objectives outlined in the ERO Enterprise Strategic Plan, 2014-2017. There are four overarching metrics focused on overall effectiveness in addressing bulk power system risks and improving reliability. There are a number of supporting measures that assess the effectiveness of the key operational elements of the ERO Enterprise. Exhibit 1 to this Attachment sets forth the specific 2014 metrics which were approved by NERC's board in open session on May 2014.

Exhibit 2 to this Attachment is the summary of corporate performance measures as of June 30, 2014 which was presented before stakeholders and NERC’s Board of Trustees at the August 13, 2014 open meeting of NERC's Corporate Governance and Human Resources Committee. Similar reports are prepared and presented each quarter at approximately the same time NERC prepares and presents in open session to the NERC's Finance and Audit Committee its quarterly and year to date financial reports comparing budgeted to actual expenditures, together with a year-end rolling year end projection.

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

## Electric Reliability Organization Enterprise Performance Metrics

In 2014, NERC and the Regional Entities introduced a common set of ERO Enterprise performance metrics. These metrics are intended as indicators of the overall effectiveness of the ERO Enterprise in achieving its mission and the goals and objectives outlined in the ERO Enterprise Strategic Plan, 2014-2017. There are four overarching metrics focused on overall effectiveness in addressing bulk power system risks and improving reliability. There are a number of supporting measures that assess the effectiveness of the key operational elements of the ERO Enterprise.

The intent is to report the results of these metrics on an ERO Enterprise-wide basis, and also as applicable distinguish results for NERC and individual regions. NERC and the Regional Entities are encouraged to further use relevant portions of these measures in their internal corporate performance management programs.

## Metric 1: Reliability Results

Measure - Determine the frequency of BPS events, excluding weather ${ }^{1}$, flood, or earthquake. The target is fewer, less severe events during 2014-2017; no Category 4 and 5 events and Category 3 events are trending down.

## Metric 2: Assurance Effectiveness

Measure - Assess all Category 3 and above events. The target is to reach zero gaps in Reliability Standards and compliance monitoring by 2017.

## Metric 3: Risk Mitigation Effectiveness

Measure - Review the BES risk profile each year to determine actual and potential risks. The target is to identify, select and mitigate the high priority risks (and issue specific metrics for each established project).

[^48]1. Changing Resource Mix - As the generation and load on the power system changes, new vulnerabilities may be exposed that the system was not previously designed to address or respond to. Fundamental operating characteristics and behaviors are no longer a certainty and focused action is needed to address this risk.
2. Extreme Physical Events - Risk mitigation efforts (reducing the potential consequence) are underway, but additional focus is needed to address and minimize both the magnitude and duration of the consequences of an extreme physical event.
3. Protection System Misoperations - NERC's 2012 and 2013 State of Reliability Reports identified protection system misoperations as a significant threat to BPS reliability. Additional activities are needed to ensure this risk is managed adequately.
4. Cold Weather Preparedness - Lack of generator preparedness for cold weather extremes may result in forced outages, de-ratings, and failures to start. Insufficient availability of intra-regional generation and limits on import transfer capability may result in insufficient generation to serve forecasted load, resulting in load shedding.
5. Right of Way Clearances - Transmission Owners and applicable Generation Owners may have established incorrect ratings based on design documents, rather than on the actual facilities built. Managing to stay within SOL and IROL limits that are based on incorrect ratings may be inadequate to prevent equipment damage and/or cascading, instability, or separation.
6. $\mathbf{3 4 5 k V}$ Breaker Failures - NERC has identified a potential trend of 345 kV SF6 puffer type breakers failing. Circuit breaker failures, in conjunction with another fault, may lead to more BES Facilities removed from service than required to clear the original fault. This poses a risk to the reliability of the BES.

## Metric 4: Program Execution Effectiveness

Measure - Sum of the weighted sub-metrics.

Sub metric A (Primary NERC) - Percent of all board-approved standards ${ }^{2}$ meet quality criteria and results-based construct ${ }^{3}$.

The Standards Committee and NERC Staff will work together to develop a periodic review process for steady state Reliability Standards. The process will include a quality and content review and the use or adaptation of the 2013 Independent Expert Review Team's quality and content scoring system will be considered during development. The review will be conducted by a cross-functional task force that will consist of Committee chairs, NERC management, NERC and stakeholder subject matter experts, and

[^49]other parties as deemed necessary and appropriate. This review may also be incorporated into the current Standards Processes Manual periodic review process to avoid duplication of effort. So that the task force will be able to identify Reliability Standards for inclusion in the 2016-2018 Reliability Standards Development Plan, the task force will be operational no later than mid-2015 to allow ample time for the development of the annual task force review timeline.

Sub metric B (Primary NERC) - Quality, up-to-date Reliability Standard Audit Worksheets, or any successor guidance, developed for board-approved Reliability Standards.

2014 = Every standard that goes to ballot will have a posted RSAW alongside. Every standard that is reviewed as part of the 5 year review cycle will have a current up-to-date RSAW or successor.

2015 = All RSAWs are converted to the new format and are available to industry.
2016-2017 = Violations for new standards do not occur at rates higher than the average rate for standards (or for which they replace) and repeat violations for standards is trending down.

Sub metric C (Joint ERO Enterprise) - Implementation of risk-based registration criteria to achieve efficient and effective allocation of compliance obligations. Registration is commensurate with risk and RAI and in light of new BES definition implementation.

2014 = Assessment complete with recommended framework and registration criteria.
Implementation plan following assessment, criteria and framework completed.
2015 = Business processes / tools
2016 = Implementation launch
2017 = Stable state

Sub metric D (Joint ERO Enterprise) - Timeliness and transparency of compliance results: 12 month rolling average of the ERO Enterprise caseload index trending favorably. ${ }^{4}$ Maximum age of unclosed cases is less than 24 months and improving.

2014 = ERO Enterprise caseload index less than or equal to 7 months, with all Regional Entities above average trending downward. ERO Enterprise average violation aging less than or equal to 13.5 months.

[^50]2015 = ERO Enterprise caseload index of 8 months, with all Regional Entities above average trending downward. ERO Enterprise average violation aging less than or equal to 13 months.
$2016=$ ERO Enterprise caseload index of 8 months, with all Regional Entities above average trending downward. ERO Enterprise average violation aging less than or equal to 12.5 months.

2017 = ERO Enterprise caseload index of 8 months. ERO Enterprise average violation aging less than or equal to 12 months.

Sub metric E (Joint ERO Enterprise) - Percent of self-identified non-compliances (includes self-reports and self-certifications).

$$
\begin{aligned}
& 2014=70 \% \\
& 2015=74 \% \\
& 2016=78 \% \\
& 2017=80 \%
\end{aligned}
$$

Sub metric F (Joint ERO Enterprise) - Mitigation aging curve improving ${ }^{5}$.
2014 = Percentage of the noncompliance items discovered in that year that are mitigated as of December 31, 2014)

- 2013: 80\%
- 2012: 95\%
- 2011: 98\%
- 2010 (and older): 100\%

2015-2017 = Mitigation aging curve trending favorably.

Sub metric $\boldsymbol{G}$ (Joint ERO Enterprise) - RAI reforms and percent of total findings (excluding dismissals) not going to enforcement or filed with FFT or spreadsheet.
$2014=$

- ERO auditor handbook deployment;
- RAI compliance reform design complete and reflected in the CMEP implementation plan for 2015;

[^51]- Enforcement pilots completed and FERC filings made, if required;
- Train at least two partnering entities to complete maturity model assessments and complete either directly or through trained partners 20 maturity model assessments;
- At least $75 \%$ of noncompliance posing a minimal or moderate risk to the BPS is processed through discretion (i.e.: does not trigger an enforcement action), FFT or SNOP;
- Average time from discovery to posting FFT is 6 months;
- Average time from discovery to decision to enforce or not (i.e.: the triage process) is 60 days.

2015 = Higher percentage of lower and moderate risk violations staying in compliance through exercise of discretion to initiate an enforcement action; audit scope based on common ERO methodology.

2016 = Compliance and enforcement end state designs implemented; continued increase in lower and moderate risk violations staying in compliance through exercise of discretion to initiate an enforcement action.

2017 = Achieve fewer, less severe violations. Positive trend in number of matters dispensed outside of enforcement.

Sub metric H (Primary NERC) - Participation in ES-ISAC increased (2013 statistics used as baseline) $2014=$

- $90 \%$ of all RCs and TO/TOPs;
- $10 \%$ increase in enrollment of all other registered entities;
- $20 \%$ increase in information share activity on portal (baseline 2013 uploads figures).
- Develop an ES-ISAC mission performance program, including Key Performance Indicators (KPIs) and benchmarks, by end of Q3.

2015-2017 = KPIs trending favorably.

Sub metric I (Joint ERO Enterprise) - Assessment of quality and availability of planning and engineering models and data.

2014 = Methodology to validate models developed and endorsed by appropriate technical committees.

2015 = Acquire data and capability for set up / start up.

2016 = Assessment of state and quality of modeling. Establish plan to implement assessment recommendations.

2017 = Implement plan.

Sub metric J (Joint ERO Enterprise) - Achieving transition laid out in oversight model regarding ERO Enterprise personnel and ERO Enterprise (NERC and Regional Entity) infrastructure and applications qualifications.

2014= Report quarterly progress and achieve $25 \%$ completion of action items.
2015= Report quarterly progress and achieve 50\% completion of action items.
2016= Report quarterly progress and achieve $75 \%$ completion of action items.
2017= Report quarterly progress and achieve $100 \%$ completion of action items.

Sub metric K (Joint ERO Enterprise) -Stakeholder annual satisfaction/perception survey of the ERO's effectiveness to manage risk, budget and stewardship.

2014 = Develop questionnaire with stakeholder input and vetting. Survey complete and benchmarks Established.

2015-2017 = Performance trending favorably.

## NERC

NORTH AMERICAN ELECTRIC
RELIAGILITY CORPORATION

## Corporate Governance and Human Resources Committee

August 14, 2014 | 7:30 a.m. - 8:30 a.m. Pacific
The Westin Bayshore 1601 Bayshore Drive Vancouver, BC V6G 2V4


## NERC

## 2014 NERC Performance Report

Quarter 2 Status
Mark Lauby, Senior Vice President and Chief Reliability Officer
Corporate Governance and Human Resources Committee Meeting August 13, 2014


## Metric 1: Reliability Results

- No Category 4 or 5 events


## Metric 3: Risk Mitigation Effectiveness

- Changing Resource Mix
- Extreme Physical Events
- Cold Weather Preparedness
- 345 kV Breaker Failures


## Metric 4: Program Execution Effectiveness

- Sub-metric B: Quality, up-to-date RSAWs
- Sub-metric C: Implementation of risk-based registration criteria
- Sub-metric E: Percent of self-identified non-compliances
- Sub-metric H: Participation in ES-ISAC
- Sub-metric I: Designating system events used in model validation


## Watching at Q2

## Metric 2: Assurance Effectiveness

- Category 3 event occurred on May 25 and a gap analysis underway


## Metric 3: Risk Mitigation Effectiveness

- Protection System Misoperations - Progress continues towards approval/filing of PRC-004-3. Data gathering ongoing to identify trends.
- Right-of-Way Clearances - Site visits scheduled and best practice/assurance activities continue. Joint report under development


## Metric 4: Program Execution Effectiveness

- Sub-metric A: Standards prepared for approval
- Sub-metric D: Caseload index trending and active violations increased
- Sub-metric F: Mitigation aging curve slowing among recent years
- Sub-metric G: RAI reforms continue
- Sub-metric J: ERO oversight activities ongoing
- Sub-metric K: Stakeholder perception survey plan under development


## Emerging Activities in Q3

## Metric 3: Risk Mitigation Effectiveness

- Protection System Misoperations: Report will be completed
- Right-of-Way Clearances: Site visits will be initiated


## Metric 4: Program Execution Effectiveness

- Sub-metric A: Standards will achieve industry approval
- Sub-metric G: RAI risk elements, CMEP implementation and maturity model assessments will progress
- Sub-metric J: ERO oversight model action item joint board
- Sub-metric K: Stakeholder perception survey with CCC and industry coordination will be launched

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

## Questions and Answers

# NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION 

## 2015 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 7<br>METRICS COMPARING REGIONAL ENTITY OPERATIONS BASED ON

THE 2015 BUDGETS

## ATTACHMENT

## METRICS COMPARING REGIONAL ENTITY OPERATIONS BASED ON THE 2015 BUDGETS

## Introduction

This Attachment provides metrics on the Regional Entities’ operations based on their 2015 Business Plans and Budgets, and analysis of the metrics. Consistent with the similar attachments provided in NERC's 2010, 2011, 2012, 2013, and 2014 Business Plan and Budget filings, this Attachment focuses on providing quantitative data and information for the Regional Entities. The metrics focus primarily on the Regional Entities’ Compliance Monitoring and Enforcement Programs (Compliance Program). This Attachment contains:

- a table providing the 2015 budget metrics values for each Regional Entity (page 4);
- a series of bar charts comparing the Regional Entities’ Compliance Program 2015 budgeted costs (pages 5-7);
- a series of bar charts comparing the Regional Entities’ projected costs for 2015 for "small," "medium" and "large" on-site and off-site operational compliance audits ${ }^{1}$ and "small" and "large" on-site and off-site CIP compliance audits ${ }^{2}$ (pages 8-10);

[^52]- trend line plots of the Regional Entities’ 2015 Compliance Program budgets against numbers of registered entities and numbers of registered functions in each Region (page 11);
- bar charts comparing the Regional Entities’ numbers of registered entities per Compliance Program $\mathrm{FTE}^{3}$ and numbers of registered functions per Compliance Program FTE based on their 2015 budgets (page 12);
- bar charts comparing the Regional Entities’ numbers of registered entities per Compliance Program FTE and numbers of registered functions per Compliance Program FTE in their 2014 and 2015 Business Plans and Budgets (page 13); and,
- discussion and analysis of the metrics (pages 14-19). The discussion and analysis focuses on variations in the Regional Entity metrics based on their 2015 budgets and possible reasons for the variations.

The table on page 4 shows the following quantitative data for each Regional Entity based on its 2015 Business Plan and Budget. This data is used to develop the bar charts and trend line graphs that follow based on the Regional Entities' 2015 budgets.

- $\quad$ Numbers of registered entities
- Numbers of registered functions
- Total NEL (GWh)
- NEL (GWh) per registered entity
- Total ERO funding
- ERO (statutory) funding ${ }^{4}$ per registered entity
- ERO funding per registered function

[^53]- Total statutory budget
- Total statutory budget ${ }^{5}$ per registered entity
- Total statutory budget per registered function
- Total statutory FTE
- Registered entities per statutory FTE
- Registered functions per statutory FTE
- Total Compliance Program budget
- $\quad$ Compliance Program budget per registered entity
- Compliance Program budget per registered function
- Total Compliance FTE
- Registered entities per Compliance Program FTE
- Registered functions per Compliance Program FTE
- Projected numbers of small, medium and large on-site operational audits in 2015
- Estimated costs for small, medium and large on-site operational audits in 2015
- Projected numbers of small, medium and large off-site operational audits in 2015
- Estimated costs for small, medium and large off-site operational audits in 2015
- Projected numbers of small and large on-site CIP audits in 2015
- Estimated costs for small and large on-site CIP audits in 2015
- Projected numbers of small and large off-site CIP audits in 2015
- Estimated costs of small and large off-site CIP audits in 2015
- Average number of contractors used and projected contractor costs for small, medium and large on-site operational audits
- Average number of contractors used and projected contractor costs for small, medium and large off-site operational audits

[^54]2015 Metrics for Budget Submissions

|  | Budget Metrics | FRCC | MRO ${ }^{6}$ | NPCC ${ }^{6}$ | RF | SERC | SPP RE | Texas RE | WECC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Number of registered entities | 68 | 136 | 300 | 331 | 242 | 150 | 226 | 439 |
| 2 | Number of registered functions | 243 | 459 | 602 | 669 | 681 | 420 | 444 | 1182 |
| 3 | Total NEL (GWh) | 221,297 | 289,264 | 648,607 | 908,727 | 1,009,060 | 216,656 | 332,698 | 3,226 |
| 4 | NEL (GWh) per registered entity | 3,254 | 2,127 | 2,162 | 2,745 | 4,170 | 1,444 | 1,472 | 7 |
| 5 | Total ERO Funding ${ }^{1}$ | \$6,237,838 | \$ 9,821,019 | \$ 14,359,378 | \$ 19,383,897 | \$ 15,518,034 | \$ 10,145,148 | \$ 10,983,946 | \$ 25,175,135 |
| 6 | ERO Funding per registered entity | \$ 91,733 | \$ 72,213 | \$ 47,865 | \$ 58,562 | \$ 64,124 | \$ 67,634 | \$ 48,602 | \$ 57,347 |
| 7 | ERO Funding per registered function | \$ 25,670 | \$ 21,397 | \$ 23,853 | \$ 28,974 | \$ 22,787 | \$ 24,155 | \$ 24,739 | \$ 21,299 |
| 8 | Total Budget ${ }^{2}$ | \$7,162,233 | \$ 10,328,687 | \$ 14,778,539 | \$ 18,756,763 | \$ 15,995,840 | \$ 11,808,110 | \$ 11,983,701 | \$ 26,300,035 |
| 9 | Total Budget per registered entity | \$ 105,327 | \$ 75,946 | \$ 49,262 | \$ 56,667 | \$ 66,099 | \$ 78,721 | \$ 53,025 | \$ 59,909 |
| 10 | Total Budget per registered function | \$ 29,474 | \$ 22,503 | \$ 24,549 | \$ 28,037 | \$ 23,489 | \$ 28,115 | \$ 26,990 | \$ 22,250 |
| 11 | Total Statutory $\mathrm{FTE}^{3}$ | 30.91 | 42.5 | 36.86 | 72.2 | 78.7 | 32.75 | 60 | 137.5 |
| 12 | Registered entity per Statutory FTE | 2.200 | 3.200 | 8.139 | 4.584 | 3.075 | 4.580 | 3.767 | 3.193 |
| 13 | Registered function per Statutory FTE | 7.862 | 10.800 | 16.332 | 9.266 | 8.653 | 12.824 | 7.400 | 8.596 |
| 14 | Total Compliance Budget ${ }^{4}$ | \$5,211,874 | \$ 6,994,216 | \$ 8,568,145 | \$ 10,651,382 | \$ 10,779,635 | \$ 8,583,743 | \$ 9,008,548 | \$ 13,178,512 |
| 15 | Compliance budget per registered entity | \$ 76,645 | \$ 51,428 | \$ 28,560 | \$ 32,179 | \$ 44,544 | \$ 57,225 | \$ 39,861 | \$ 30,019 |
| 16 | Compliance budget per registered function | \$ 21,448 | \$ 15,238 | \$ 14,233 | \$ 15,921 | \$ 15,829 | \$ 20,437 | \$ 20,290 | \$ 11,149 |
| 17 | Total Compliance FTE ${ }^{3}$ | 19.77 | 22.08 | 16 | 45.75 | 37.5 | 20.85 | 33.5 | 53.5 |
| 18 | Registered entity per Compliance FTE | 3.4 | 6.2 | 18.8 | 7.2 | 6.5 | 7.2 | 6.7 | 8.2 |
| 19 | Registered function per Compliance FTE | 12.3 | 20.8 | 37.6 | 14.6 | 18.2 | 20.1 | 13.3 | 22.1 |
| 20 | Number of Small (non-CIP/693) Audits Onsite ${ }^{5}$ | 2 | 0 | 3 | 0 | 10 | 0 | 0 | 0 |
| 21 | Estimated Cost per Small (non-CIP/693) Audit Onsite ${ }^{5}$ | \$ 7,582 | \$ | \$ 13,320 | \$ | \$ 10,731 | \$ |  | \$ |
| 22 | Number of Medium (non-CIP/693) Audits Onsite ${ }^{5}$ | 1 | 7 | 0 | 10 | 15 | 0 | 4 | 0 |
| 23 | Estimated Cost per Medium (non-CIP/693) Audit Onsite ${ }^{5}$ | \$ 18,956 | \$ 44,049 | \$ | \$ 39,857 | \$ 18,492 | - | \$ 37,246 | \$ |
| 24 | Number of Large (non-CIP/693) Audits Onsite ${ }^{5}$ | 6 | 0 | 4 | 0 | 6 | 6 | 6 | 20 |
| 25 | Estimated Cost per Large (non-CIP/693) Audit Onsite ${ }^{5}$ | \$ 37,912 | \$ | \$ 44,815 | \$ | \$ 41,137 | \$ 54,413 | \$ 57,534 | \$ 30,239 |
| 26 | Number of Small (non-CIP/693) Audits Offsite ${ }^{5}$ | 2 | 11 | 10 | 35 | 15 | 14 | 0 | 22 |
| 27 | Estimated Cost per Small (non-CIP/693) Audit Offsite ${ }^{5}$ | \$ 2,771 | \$ 11,404 | \$ 12,740 | \$ 10,102 | \$ 9,635 | \$ 10,457 | \$ | \$ 2,765 |
| 28 | Number of Medium (non-CIP/693) Audits Offsite ${ }^{5}$ | 0 | 1 | 21 | 0 | 0 | 0 | 7 | 47 |
| 29 | Estimated Cost per Medium (non-CIP/693) Audit Offs ite ${ }^{5}$ | \$ | \$ 40,549 | \$ 21,955 | \$ | \$ | - | \$ 30,011 | \$ 7,960 |
| 30 | Number of Large (non-CIP/693) Audits Offsite ${ }^{5}$ | 0 | 0 | 8 | 0 | 0 | 0 | 23 | 5 |
| 31 | Estimated Cost per Large (non-CIP/693) Audit Offsite ${ }^{5}$ | \$ | \$ | \$ 27,730 | \$ | \$ 30,485 | \$ | \$ 48,347 | \$ 21,899 |
| 32 | Number of Small (CIP/706B) Audits Onsite ${ }^{5}$ | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 |
| 33 | Estimated Cost per Small (CIP/706B) Audit Onsite ${ }^{5}$ | \$ | \$ | \$ | \$ | \$ 11,235 | \$ | \$ | \$ |
| 34 | Number of Large (CIP/706B) Audits Onsite ${ }^{5}$ | 2 | 2 | 4 | 4 | 6 | 6 | 8 | 21 |
| 35 | Estimated Cost per Large (CIP/706B) Audit Onsite ${ }^{5}$ | \$ 75,824 | \$ 57,520 | \$ 44,800 | \$ 75,366 | \$ 48,447 | \$ 96,238 | \$ 58,093 | \$ 32,629 |
| 36 | Number of Small (CIP/706B) Audits Offsite ${ }^{5}$ | 9 | 9 | 24 | 50 | 9 | 9 | 24 | 51 |
| 37 | Estimated Cost per Small (CIP/706B) Audit Offsite ${ }^{5}$ | \$ 2,771 | \$ 5,702 | \$ 9,490 | \$ 6,164 | \$ 15,790 | \$ 4,802 | \$ 17,118 | \$ 2,151 |
| 38 | Number of Large (CIP/706B) Audits Offsite ${ }^{5}$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 39 | Estimated Cost per Large (CIP/706B) Audit Offsite ${ }^{5}$ | \$ | \$ | \$ | \$ | \$ | \$ |  | \$ |
| 40 | Avg. Number of Contractors Per Small Audits Onsite | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 41 | Avg. Number of Contractors Per Medium Audits Onsite | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 42 | Avg. Number of Contractors Per Large Audits Onsite | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 |
| 43 | Avg. Number of Contractors Per Small Audits Offsite | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 44 | Avg. Number of ContractorsPer Medium Audits Offsite | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 45 | Avg. Number of Contractors Per Large Audits Offsite | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |

${ }^{1}$ ERO Funding is a sum of Assessments and Penalty Sanctions
${ }^{2}$ Total Budget is a sum of Total Expenses and Capital Expenditures
${ }^{3}$ Each FTE that works 2,080 hours per year is counted as one FTE. An FTE working less than the 2,080 hours per year is counted as a fractional FTE.
${ }^{4}$ Total Compliance Budget is a sum of Direct Expenses, Indirect Expenses and Capital Expenditures
${ }^{5}$ Size of audits are defined by number of requirements:

| Small | 25 or less |
| ---: | ---: |
| Medium | 26 to 75 |
| Large | More than 75 |

${ }^{6}$ Due to the specifics of the compliance program included in the individual provincial MOUs for cross-border regional entities, some of these metrics are not directly comparable.

| FRCC | MRO | NPCC | RF | SERC | SPP RE | TRE | WECC | Avg |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $5,211,874$ | $6,994,216$ | $8,568,145$ | $10,651,382$ | $10,779,635$ | $8,583,743$ | $9,008,548$ | $13,178,512$ | $9,122,007$ |

$300 \quad 331 \quad 242$

150
226 439 237
300

669
681
420
444
1,182
588



Compliance Budget/registered entity Compliance Budget/registered function

| FRCC | MRO | NPCC | RF | SERC | SPP RE | TRE | WECC |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | Avg $\mid$



| FRCC | MRO | NPCC | RF | SERC | SPP RE | TRE | WECC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |$\quad$ Avg | WR |
| :---: |

2015 Budget


Cost per Small Operational Audit Onsite Cost per Medium Operational Audit Onsite Cost of Large Operational Audit Onsite

| FRCC | MRO | NPCC | RF | SERC | SPP RE | TRE | WECC | Avg |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7,582 | - | 13,320 | - | 10,731 | - | - | - | 10,545 |
| 18,956 | 44,049 | - | 39,857 | 18,492 | - | 37,246 | - | 31,720 |
| 37,912 | - | 44,815 | - | 41,137 | 54,413 | 57,534 | 30,239 | 44,342 |

## Cost of Small, Medium and Large On-Site Operational Audit



|  | FRCC | MRO | NPCC | RF | SERC | SPP RE | TRE | WECC | Avg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cost per Small Operational Audit Off-site | 2,771 | 11,404 | 12,740 | 10,102 | 9,635 | 10,457 | - | 2,765 | 8,554 |
| Cost per Medium Operational Audit Off-site | - | 40,549 | 21,955 | - | - | - | 30,011 | 7,960 | 25,119 |
| Cost of Large Operational Audit Off-site | - | - | 27,730 | - | 30,485 | - | 48,347 | 21,899 | 32,115 |

Cost of Small, Medium and Large Off-Site Operational Audit


Cost per Small CIP Audit Onsite Cost of Large CIP Audit Onsite

| FRCC | MRO | NPCC | RF | SERC | SPP RE | TRE | WECC | Avg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | - | - | - | 11,235 | - | - | - | 11,235 |
| 75,824 | 57,520 | 44,800 | 75,366 | 48,447 | 96,238 | 58,093 | 32,629 | 69,845 |



Cost per Small CIP Audit Off-site

| FRCC | MRO | NPCC | RF | SERC | SPP RE | TRE | WECC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | Avg Cost of Large CIP Audit Off-site





| FRCC | MRO | NPCC | RF | SERC | SPP RE | TRE | WECC | Avg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | ---: | ---: | ---: |
| 19.77 | 22.08 | 16.00 | 45.75 | 37.50 | 20.85 | 33.50 | 53.50 | 31.12 |


| \# Registered Entities per Compliance FTE | 3.4 | 6.2 | 18.8 | 7.2 | 6.5 | 7.2 | 6.7 | 8.2 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| \# Registered Functions per Compliance FTE | 12.3 | 20.8 | 37.6 | 14.6 | 18.2 | 20.1 | 13.3 | 22.1 |




|  | FRCC | MRO | NPCC | RF | SERC | SPP RE | TRE | WECC | Avg |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 Budget | 3.5 | 5.9 | 18.3 | 7.7 | 5.8 | 6.3 | 5.6 | 8.1 | 7.7 |
| 2015 Budget | 3.4 | 6.2 | 18.8 | 7.2 | 6.5 | 7.2 | 6.7 | 8.2 | 8.0 |



2014 Budget
2015 Budget

| FRCC | MRO | NPCC | RF | SERC | SPP RE | TRE | WECC | Avg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12.6 | 23.6 | 36.9 | 15.6 | 16.3 | 18.1 | 11.2 | 21.4 | 19.5 |
| 12.3 | 20.8 | 37.6 | 14.6 | 18.2 | 20.1 | 13.3 | 22.1 | 19.9 |

Comparison of Registered Functions per Compliance FTE 2014 to 2015 Budgets


## Discussion and Analysis

## Metrics Based on 2015 Regional Entity Budgets

The development, collection, analysis and comparison of Regional Entity Compliance Program metrics data continues to be a complicated and time-consuming process, requiring careful consideration of many complex factors. In analyzing the Regional Entity metrics based on their 2015 budgets, NERC has in a number of instances looked at the average value among the Regional Entities for the metric, as well as the range of the individual values around the average. This data has been considered as part of the effort to understand and explain the differences among the Regional Entities' budgeted values, and not because NERC believes the deviation from an average, standing alone, is a measure of an individual Regional Entity's efficiency or effectiveness.

The Regional Entity metrics provided in this Attachment, based on the Regional Entities' 2015 Business Plans and Budgets, continue to show, in general, that the Regional Entities with the larger numbers of registered entities and registered functions have the larger Compliance Program budgets. The bar charts and accompanying data on page 5 of this Attachment depict the relative positions of the Regional Entities with respect to (i) total Compliance Program budget for 2015 and (ii) numbers of registered entities and registered functions. ${ }^{6}$ Three exceptions to this relationship (i.e., that more registered entities and more registered functions means a larger Compliance Program budget) are (i) NPCC, which has a smaller Compliance Program budget than its rank order position in terms of numbers of registered entities and registered functions would suggest, (ii) SPP RE, which has a larger Compliance Program budget than its rank order position in terms of numbers of registered entities and registered functions would suggest, and (iii) Texas RE which also has a larger Compliance Program budget than its rank order position in terms of numbers of registered entities and registered functions would suggest . NPCC has the third highest number of registered entities and the fourth highest number of registered functions, but NPCC's Compliance Program budget is the third lowest of the eight Regional Entities. This is due to the reduced scope of compliance activities in the Canadian Provinces that are part of the NPCC Region, as governed by the Memoranda of Understanding between NPCC and the Canadian Provinces within the NPCC Region. SPP RE has the third lowest number of registered entities and second lowest number of registered functions, but the fifth highest Compliance Program budget. Texas RE has the fourth lowest number of registered entities and third lowest number of registered functions, but the fourth highest Compliance Program budget.

The bar chart and accompanying data on page 6 of this Attachment show the 2015 Compliance Program budget per registered entity and per registered function for each Regional Entity. There are variations among the Regional Entities with respect to Compliance Program budget per registered entity and Compliance Program budget per registered function. The average of the Regional Entity values for Compliance Program budget per registered function is $\$ 16,818$ (a decrease of $\$ 431$ from this average based on the 2014 Budgets); the three highest

[^55]values (FRCC - \$21,448, SPP RE - \$20,437 and Texas RE - \$20,290 and) are approximately $127 \%, 121 \%$ and $120 \%$ of the average, respectively, while the lowest value (WECC - $\$ 11,149$ ) is $66 \%$ of the average and the next lowest value (NPCC - $\$ 14,233$ ) is $85 \%$ of the average. With respect to Compliance Program budget per registered entity, the average for the Regional Entities is $\$ 45,058$ (a decrease of approximately $\$ 1,675$ from the average of the 2014 Budgets); the two highest values (FRCC - $\$ 76,645$ and SPP RE - $\$ 57,225$ ) are approximately $170 \%$ and $127 \%$ of the average, respectively; and the lowest value (NPCC - \$28,560) is $63 \%$ of the average. ${ }^{7}$

As noted, FRCC and SPP RE have the two highest values for Compliance Program budget per registered entity, and FRCC, SPP RE and Texas RE have the three highest values for Compliance Program budget per registered function. At the same time, FRCC, SPP RE and Texas RE have three of the four lowest totals of registered entities, and the three lowest totals of registered functions, among the eight Regional Entities. At the other end of the spectrum, WECC has the lowest values among the Regional Entities for Compliance Program budget per registered function and the second lowest value for Compliance Program budget per registered entity (only NPCC has lower value for Compliance Program budget per registered entity), and WECC has (by far) the highest numbers of registered entities and registered functions in its Region of all the Regional Entities. These data indicate, again (as indicated by these metrics as presented in previous years' business plan and budget filings), and in general, that there are economies of scale in Compliance Program operations and costs.

The graphs on page 11 of this Attachment, which display the results of two simple leastsquares regression analyses using the Regional Entities’ 2015 budgets, help to further illustrate the relationship between numbers of registered entities and registered functions, on the one hand, and total Compliance Program budget, on the other hand. Each Regional Entity’s 2015 Compliance Program budget has been plotted against its number of registered entities, and its number of registered functions. On each of these charts, a linear trend line has been drawn based on the data points, and the correlation coefficient $\left(\mathrm{R}^{2}\right)$ of the data points is indicated. The disparity between the $R^{2}$ value for the plot based on number of registered entities $(0.824)$ and the $R^{2}$ value for the plot based on number of registered functions ( 0.8382 ) is similar to this analysis in the previous three years' Business Plan and Budget filings. ${ }^{8}$ NERC continues to believe that

[^56]the regression analyses continue to indicate that neither number of registered entities or number of registered functions is a significantly better predictor of a Regional Entity's total Compliance Program budget than the other number. Further, a visual inspection of the two graphs shows that the data point for each Regional Entity is at approximately the same point relative to the trend line on both graphs. Specifically, the data points for FRCC, MRO, NPCC and WECC are on or below the trend line on both graphs, and the data points for SPP RE, Texas RE, SERC and RF are on or above the trend line on both graphs. (These are the same positional relationships for the individual Regional Entities that were shown in the regression plots provided in Attachment 15 of the 2013 Business Plan and Budget filing and Attachment 16 of the 2014 Business Plan and Budget filing). It can also be observed that on both of the regression graphs, the data points for each of the Regional Entities are either on or fairly close to the regression trend line; that is, there are no obvious "outliers" from the trend line among the Regional Entities, for either the regression based on Compliance Program budget as a function of number of registered entities or the regression based on Compliance Program budget as a function of the number of registered functions. Finally, the fact that the y-intercept for each trend line is significantly greater than zero is a further indication that a simple comparison of the individual Regional Entity values to an average is not a strong indicator of relative efficiencies of the Regional Entities in their Compliance Programs.

The bar charts and accompanying data lines on page 12 of this Attachment show the numbers of registered functions per Compliance Program FTE and registered entities per Compliance Program FTE for each Regional Entity, based on the 2015 budgets. The average for the eight Regional Entities for numbers of registered entities per Compliance Program FTE is 8.0, (compared to the average of 8.1 and 7.7 based on the 2013 and 2014 budgets, respectively); the lowest value (FRCC - 3.4) is $43 \%$ of the average and the highest value (NPCC - 18.8), is $234 \%$ of the average. This is about the same range of values around the average that was the case for the 2013 and 2014 Budgets ( $48 \%$ to $241 \%$, and $46 \%$ to $239 \%$, respectively). The average for numbers of registered functions per Compliance Program FTE is 19.9 (a $0.4 \%$ increase from the average based on the 2014 budgets); the lowest value (FRCC - 12.3) is $62 \%$ of the average and the highest value (NPCC - 37.6), is $189 \%$ of the average. This is also a comparable range of values around the average that was the case for the 2013 and 2014 Budgets ( $52 \%$ to $187 \%$ and $58 \%$ to $190 \%$, respectively).

The bar charts and accompanying data lines on page 13 of this Attachment provide a comparison of the metrics for registered entities per Compliance Program FTE and registered functions per Compliance Program FTE, for each Regional Entity, based on the 2015 budgets, to the values of these metrics based on the Regional Entities’ 2014 budgets as provided in the 2014 Business Plan and Budget filing. The values of this metric have decreased from the 2014 Budget to the 2015 Budget for FRCC and RF (i.e., these Regional Entities now have fewer registered entities per Compliance Program FTE than in their 2014 budgets), while the values for this metric have increased from the 2014 budgets for MRO, NPCC, SERC, SPP RE, Texas RE, and WECC (i.e., these Regional Entities now have more registered entities per Compliance Program
0.6704. In the regression analysis that was provided in Attachment 16 of the 2014 Business Plan and Budget filing, the $\mathrm{R}^{2}$ value for the plot based on number of registered functions was 0.7128 while the $\mathrm{R}^{2}$ value for the plot based on number of registered entities was 0.7908.

FTE than in their 2014 budgets). With respect to registered functions per Compliance Program FTE, the 2015 budget values of this metric are lower than the 2014 budget values for FRCC, MRO, and RF (i.e., these Regional Entities each now has fewer registered functions per Compliance Program FTE than its 2014 budget), while the 2015 budget values of this metric are higher than the 2014 budget values for NPCC, SERC, SPP RE, Texas RE, and WECC (i.e., these Regional Entities now have more registered functions per Compliance Program FTE than in their 2014 budgets. The change in the value of these metrics for FRCC, NPCC, and WECC from their 2014 budgets to their 2015 budgets is generally 5 percent or less for number of registered entities per Compliance Program FTE and is generally 5 percent or less for number of registered functions per Compliance Program FTE. This observation is consistent with the facts that (1) eight years after NERC was certified as the ERO, the population of registered entities and registered functions is fairly mature (i.e., for the most part, the users, owners, and operators of the bulk power system that should be registered, have been registered, and for the relevant reliability functions ${ }^{9}$ ), and (2) the Regional Entities have significantly grown their Compliance Program staffs over time and are not planning significant staffing changes for their Compliance Programs in their 2015 budgets as compared to their 2014 budgets. For MRO, RF, SERC, SPP RE and Texas RE, the change in the value of these metrics from their 2014 budgets to their 2015 budgets is $4.8,6.3,11.0,13.6$, and 21.6 percent, respectively for number of registered entities per Compliance Program FTE and is $12.0,6.0,11.2,11.3$, and 18.3 percent, respectively for the number of registered functions per Compliance Program FTE. ${ }^{10}$

The bar charts and accompanying data lines on pages 8 through 10 of this Attachment provide the Regional Entities' estimated costs for 2015 to perform each type (operational and CIP; on-site and off-site) and size category of compliance audit. ${ }^{11}$ The estimated costs to perform a compliance audit include the costs to prepare for the audit (including review of the registered entity's completed pre-audit questionnaire and Reliability Standards Audit Worksheets (RSAWs) and other registered entity-provided documents and information, and any pre-audit meetings), to perform the audit (whether on-site or off-site), and to report the results of the audit. Costs incurred in issuing and processing notices of alleged violations and proposed penalties resulting from the compliance audit (i.e., the costs of enforcement activities, as contrasted with the costs of compliance monitoring activities) are not included in the estimated cost to perform the compliance audit. The costs per audit for each category of audit, shown in the table on page 4 and the bar charts on pages 8 through 10, are based on the Regional Entities' estimates of the man-hours required to complete the preparation, performance and reporting functions for each category of compliance audit in 2015. The costs include the direct Salary expense and related Personnel Expense (Payroll Taxes, Benefits and Retirement Costs) for the man-hours of the Regional Entity personnel involved in preparation, performance and reporting for the audit

[^57]and/or the costs for consultant/contractor resources used by the Regional Entity to perform the audit, but do not include any allocation of Regional Entity indirect costs. The costs also include Travel Expense for personnel in connection with on-site audits at the registered entity's location.

NERC and the Regional Entities note the following factors, among others, that can contribute to the differences in estimated costs per compliance audit among the Regional Entities for the various compliance audit size and site categories, as reported in the table on page 4 and shown in the bar charts on pages 8 through 10 :

- Some Regional Entities are using consultants or contractors on their audit teams, which may entail a higher cost per hour than the use of Regional Entity employees. ${ }^{12}$ For example, as shown on the table on page 4, SERC and SPP RE are planning on the use of contractors in compliance audits in 2015. (In general and over time, as the Regional Entities have continued to build their Compliance Program staffs, they have been able to reduce their use of consultants or contractors in compliance audits. An exception is where very specialized subject matter expertise is required and there may not be cost justification for maintaining that expertise on staff in FTE positions.)
- The Regional Entity's footprint may affect the extent to which travel costs must be incurred in the performance of on-site compliance audits within the Region.
- Although consistent definitions of "large" operational and CIP audits have been used, i.e., an operational audit encompassing more than 75 reliability standards requirements and a CIP audit encompassing more than 43 CIP standards requirements or 162 sub-requirements), some Regional Entities may project a greater number of requirements to be audited in a typical "large" compliance audit than other Regional Entities. A Regional Entity that projects a larger number of requirements to be audited in a "large" audit would, all other things equal, estimate a greater amount of resources to conduct its "large" audit (e.g., more auditors, more days at the registered entity's site and/or more man-hours to review the registered entity's documentation and to prepare the audit report).
- Some Regional Entities may simply be planning more steps, or budgeting higher man-hours, for the preparation, completion and/or reporting phases of their compliance audits. In particular, there may be variations in the levels of activity and man-hours budgeted by the Regional Entities for review of registered entity responses to pre-audit questionnaires and RSAWs, and other registered entity documents and information, prior to the on-site phase of a compliance audit. In this regard, NERC notes that one of its initiatives during 2014 and continuing into 2015, in conjunction with the Regional Entities, is the development of, training of auditors on, and implementation of, a common compliance audit manual and checklist and set of

[^58]compliance audit procedures, in order to increase the consistency of compliance audit processes across the Regional Entities. See the discussion in the Regional Entity Assurance and Oversight section of NERC's 2015 Business Plan and Budget, Attachment 2 to this filing.

- With respect to CIP compliance audits, the need to examine equipment or facilities that are the subject of one or more TFE Requests or to audit the registered entity's compliance with one or more approved TFEs complicates the difficulty of projecting the resource requirements for a CIP audit.

In addition to these factors, differences in estimated costs per audit among Regional Entities may reflect general differences in the market compensation levels in the different areas of the U.S. in which the various Regional Entities operate, thereby impacting their respective overall Personnel Expenses.

In conclusion, NERC reiterates that the development, collection, analysis and comparison of metrics on the Regional Entities’ costs, operations and performance is an ongoing process. NERC and the Regional Entities will continue to work collaboratively to develop and refine appropriate metrics and to improve their analysis of the reported metrics values and the factors that may cause variations in values among the Regional Entities. In addition, NERC and the Regional Entities are evaluating whether additional or revised metrics should be developed to better reflect current practices in compliance auditing and other compliance monitoring activities, including the impacts of the ERO’s Reliability Assurance Initiative.

# NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION 

## 2015 BUSINESS PLAN AND BUDGET FILING

## ATTACHMENT 8

# METRICS ON NERC AND REGIONAL ENTITY ADMINISTRATIVE (INDIRECT) COSTS BASED ON 

THE 2014 AND 2015 BUDGETS

## ATTACHMENT

## Analysis of <br> NERC and Regional Entity Budgeted Indirect (Administrative Services) Costs 2015 Budgets versus 2014 Budgets

In the preparation of the NERC and Regional Entity 2015 Business Plans and Budgets, indirect expenses have been defined as those expenses which cannot be directly attributed to one of the statutory program functions. ${ }^{1}$

The metrics presented in the tables on the last page of this Attachment are the same metrics presented in the Attachment to the 2010, 2011, 2012 and 2013 Business Plan and Budget filings and the Attachment to the 2014 Business Plan and Budget filing. These tables provide several metrics comparing indirect costs and FTEs ${ }^{2}$ in relation to total statutory costs and FTEs and direct statutory costs and FTEs, for NERC and each of the Regional Entities, in their 2015 Business Plans and Budgets and their 2014 Business Plans and Budgets.

Overall, the tables show a decrease in the average indirect costs as a percent of total statutory costs and an increase in the average statutory indirect FTEs as a percentage of total statutory FTEs, in the NERC and Regional Entity 2015 budgets as compared to the 2014 budgets. This result is reflective of consistent application of the definition of indirect costs, as described above, in the preparation of the 2015 budgets.

Following is discussion of the individual metrics presented in the tables.

## Percent of Statutory Indirect Budget to Total Statutory Budget

For NERC and the Regional Entities, the average percent of Statutory Indirect Budget to Total Statutory Budget (top row of tables) in the 2015 budgets is $34.8 \%$, versus $35.5 \%$ in the 2014 budgets. For 2015, FRCC, MRO, NPCC, RF, Texas RE and WECC show percentages below or only slightly above (less than 10\% higher than) the overall average. SERC's 2015 value for this metric is only $13 \%$ higher than the overall average.

FRCC’s percentages for this metric calculated from both its 2014 budget and its 2015 budget are considerably lower than the overall average, which is reflective of the methodology used by FRCC to identify and allocate staff time and Office Costs to the appropriate program. SPP RE continues to have a higher percentage than the average (the highest percentage among the Regional Entities) for this metric, reflecting the allocation of indirect costs (support services charges) from SPP, Inc., which are driven by SPP, Inc.'s operating budget.

For NERC, MRO, NPCC, RF, SPP RE and WECC the percentages of Statutory Indirect Budget to Total Statutory Budget decreased in their 2015 budgets from the percentages based on

[^59]their 2014 budgets, ranging from a 0.2 percentage point decrease for NPCC to a 3 percentage point decrease for NERC. NERC's decrease for this metric is largely due to the increase in its budgeted statutory direct expenses in 2015 due to the commencement of NERC's participation in the Cyber Risk Information Sharing Program (CRISP), which in turn is being funded largely through Third-Party Funding payments from the electric utilities participating in the CRISP rather than through increased statutory assessments to all load-serving entities. For FRCC and SERC, the percentages increased by 1.7 percentage points and 2.2 percentage points, respectively. For Texas RE the percentages remained the same.

The overall average for the ratio of Statutory Direct Budget to Statutory Indirect Budget decreased from 2.57 based on the 2014 Business Plans and Budgets to 2.43 based in the 2015 Business Plans and Budgets. Overall, the changes in the average values of the two metrics shown in the top row of tables from the 2014 Budgets to the 2015 Budgets do not represent significant movement.

## Budgeted Indirect FTEs as a Percent of Budgeted Total FTEs

In the NERC and Regional Entity 2015 Business Plans and Budgets, on average the budgeted statutory indirect FTEs are $24.7 \%$ of total statutory FTEs, compared to an average of $22.3 \%$ for the 2014 budgets, an increase of 2.4 percentage points (second row of tables). In the 2014 budget compared to the 2013 budget, the average number of statutory direct FTEs per statutory indirect FTE increased by 0.09 , from 4.32 to 4.41 . On average, there are 3.53 statutory direct FTEs per statutory indirect FTE in the 2015 budgets, compared to 4.41 statutory direct FTEs per statutory indirect FTEs in the 2014 budgets, for an average decrease of 0.88 statutory direct FTEs per statutory indirect FTE.

NERC, FRCC, SERC, SPP RE and Texas RE have higher percentages of budgeted statutory indirect FTEs to total statutory FTEs reflected in their 2015 budgets than in their 2014 budgets. RF and WECC have lower percentages of budgeted statutory indirect FTEs to total statutory FTEs reflected in their 2015 budgets than in their 2014 budgets. MRO's and NPCC's percentage of budgeted statutory indirect FTEs to total statutory FTEs reflected in their 2015 budgets are the same as in their 2014 budgets. NERC, FRCC, SPP RE and Texas RE have the largest decreases in the ratio of direct statutory FTEs to indirect statutory FTEs from their 2014 Budgets to their 2015 Budgets. SPP RE continues to have a very low percentage of indirect statutory FTEs to total statutory FTEs, which reflects the fact that SPP RE has a very small staff of indirect FTEs and obtains many of its administrative services from SPP, Inc. rather than through its own administrative staff as is the case for NERC and the other seven Regional Entities.

In considering this metric, it should be kept in mind that neither NERC nor any of the other Regional Entities are planning significant changes (increases or decreases) in overall staffing levels in their 2015 budgets from their 2014 budgets. Thus, the changes in the percentages of budgeted statutory indirect FTEs to total statutory FTEs and in the ratios of direct statutory FTEs to indirect statutory FTEs represent, primarily, reallocations of resources among direct and indirect program areas within each entity to support the goals and objectives of each entity.

## Statutory Indirect Budget per Total FTE

The Statutory Indirect Budget per Total FTEs has increased from an average of \$95,164 in the 2014 NERC and Regional Entity budgets to $\$ 97,312$ in the 2015 budgets, an increase of $\$ 2,148$, or $2.3 \%$ (bottom row of tables). In prior years, the increases in the statutory Indirect Budget per Total FTEs were generally reflective of an increased percentage of Statutory Indirect Budget to Total Statutory Budget (first row of tables). In 2015, this relationship is similar for FRCC and SERC. The statutory Indirect Budget per Total FTEs metric has decreased from the 2014 budget to the 2015 budget for MRO and WECC, and is reflective of their decreased percentages of Statutory Indirect Budget to Total Statutory Budget (first row of tables). The statutory Indirect Budget per Total FTEs metric has increased from the 2014 budget to the 2015 budget for NERC, NPCC, RF and SPP RE, while the percentage of Statutory Indirect Budget to Total Statutory Budget (first row of tables) decreased for these entities. The percentage differences in these two metrics from the 2014 Budgets to the 2015 Budgets for NPCC (2\%), RF (4\%) and SPP RE (2\%) are not significant. For NERC, the statutory Indirect Budget per Total FTEs metric has increased $8.8 \%$ from the 2014 budget to the 2015 budget, while the percentage of Statutory Indirect Budget to Total Statutory Budget (first row of tables) decreased 3.0\%. The increase in NERC's statutory Indirect Budget per Total FTEs (bottom row of tables) is reflective of the small increase in total FTEs, 189.53 FTEs in 2014 to 192.3 FTEs in 2015, or 1.5\%, compared to the increase in NERC's statutory indirect budget, from $\$ 25.2 \mathrm{M}$ in 2014 to $\$ 27.8 \mathrm{M}$ in 2015, or 10.4\%. While NERC's statutory indirect budget increased 10.4\% in 2015 over 2014, NERC's statutory direct budget increased $24.5 \%$ in 2015 over 2014 ( $\$ 38.8 \mathrm{M}$ in 2015 compared to $\$ 31.2 \mathrm{M}$ in 2014), due largely to the incorporation of the CRISP in the 2015 Budget, resulting in the decrease in NERC's percentage of Statutory Indirect Budget to Total Statutory Budget (first row of tables).

| 2014 BUDGET |  |  |  |  |  | 2015 BUDGET |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Statutory Budget | Total Statutory Direct Budget | Total Statutory Indirect Budget |  | \% Statutory Indirect Budget to Total Statutory | Ratio of Statutory Direct Budget to Indirect Budget |  | Total Statutory Budget |  | Total Statutory Direct Budget | Total Statutory Indirect Budget | \% Statutory Indirect Budget to Total Statutory | Ratio of Statutory Direct Budget to Indirect Budget |
| 56,390,096 | \$ 31,154,625 | \$ | 25,235,471 | 44.8\% | 1.23 | NERC | \$ | 66,649,306 | 38,801,269 | 27,848,037 | 41.8\% | 1.39 |
| 6,794,932 | 6,172,992 |  | 621,940 | 9.2\% | 9.93 | FRCC |  | 7,162,233 | 6,379,570 | 782,663 | 10.9\% | 8.15 |
| 9,744,799 | 5,774,572 |  | 3,970,227 | 40.7\% | 1.45 | MRO |  | 10,328,687 | 6,430,254 | 3,898,433 | 37.7\% | 1.65 |
| 14,129,006 | 9,095,248 |  | 5,033,758 | 35.6\% | 1.81 | NPCC |  | 14,778,540 | 9,544,174 | 5,234,366 | 35.4\% | 1.82 |
| 18,063,201 | 12,869,165 |  | 5,194,036 | 28.8\% | 2.48 | RF |  | 18,756,764 | 13,442,121 | 5,314,643 | 28.3\% | 2.53 |
| 16,877,288 | 10,610,814 |  | 6,266,474 | 37.1\% | 1.69 | SERC |  | 15,995,840 | 9,704,308 | 6,291,532 | 39.3\% | 1.54 |
| 11,823,629 | 5,736,162 |  | 6,087,467 | 51.5\% | 0.94 | SPP RE |  | 11,808,109 | 5,803,102 | 6,005,007 | 50.9\% | 0.97 |
| 11,771,248 | 7,653,236 |  | 4,118,012 | 35.0\% | 1.86 | Texas RE |  | 11,983,701 | 7,788,932 | 4,194,769 | 35.0\% | 1.86 |
| 25,638,084 | 16,296,214 |  | 9,341,870 | 36.4\% | 1.74 | WECC |  | 26,300,034 | 17,346,688 | 8,953,346 | 34.0\% | 1.94 |
|  |  |  |  | 35.5\% | 2.57 | AVERAGE |  |  |  |  | 34.8\% | 2.43 |

2014 BUDGETED FTEs

| 2014 BUDGETED FTEs |  |  |  |  | 2015 BUDGETED FTEs |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Statutory FTEs | Total Statutory Direct FTEs | Total Statutory Indirect FTEs | Indirect FTE as \% of Total FTE | \# Direct to Indirect Statutory FTEs |  | Total Statutory FTEs | Total Statutory Direct FTEs | Total Statutory Indirect FTES | Indirect FTE as \% of Total FTE | \# Direct to Indirect Statutory FTEs |
| 189.53 | 130.39 | 59.14 | 31.2\% | 2.20 | NERC | 192.30 | 124.76 | 67.54 | 35.1\% | 1.85 |
| 30.40 | 27.04 | 3.36 | 11.1\% | 8.05 | FRCC | 30.91 | 26.87 | 4.04 | 13.1\% | 6.65 |
| 40.75 | 29.79 | 10.96 | 26.9\% | 2.72 | MRO | 42.50 | 31.08 | 11.42 | 26.9\% | 2.72 |
| 36.86 | 27.86 | 9.00 | 24.4\% | 3.10 | NPCC | 36.86 | 27.86 | 9.00 | 24.4\% | 3.10 |
| 72.00 | 57.20 | 14.80 | 20.6\% | 3.86 | RF | 72.20 | 57.60 | 14.60 | 20.2\% | 3.95 |
| 79.20 | 59.37 | 19.83 | 25.0\% | 2.99 | SERC | 78.70 | 54.57 | 24.13 | 30.7\% | 2.26 |
| 33.86 | 30.86 | 3.00 | 8.9\% | 10.29 | SPP RE | 32.75 | 28.25 | 4.50 | 13.7\% | 6.28 |
| 60.00 | 49.25 | 10.75 | 17.9\% | 4.58 | Texas RE | 60.00 | 44.50 | 15.50 | 25.8\% | 2.87 |
| 135.00 | 88.10 | 46.90 | 34.7\% | 1.88 | WECC | 137.50 | 92.60 | 44.90 | 32.7\% | 2.06 |
|  |  |  | 22.3\% | 4.41 | AVERAGE |  |  |  | 24.7\% | 3.53 |

2014 BUDGET per FTE

| 2014 BUDGET per FTE |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Statutory |  | Total Statutory Direct |  | Total Statutory Indirect |  | Statutory Indirect Budget per Total FTE |  |
| \$ | 297,526 | \$ | 238,934 | \$ | 426,707 | \$ | 133,148 |
|  | 223,518 |  | 228,291 |  | 185,101 |  | 20,459 |
|  | 239,136 |  | 193,843 |  | 362,247 |  | 97,429 |
|  | 383,315 |  | 326,463 |  | 559,306 |  | 136,564 |
|  | 250,878 |  | 224,985 |  | 350,948 |  | 72,139 |
|  | 213,097 |  | 178,723 |  | 316,010 |  | 79,122 |
|  | 349,192 |  | 185,877 |  | 2,029,156 |  | 179,783 |
|  | 196,187 |  | 155,396 |  | 383,071 |  | 68,634 |
|  | 189,912 |  | 184,974 |  | 199,187 |  | 69,199 |
|  |  |  |  |  |  | \$ | 95,164 |

2015 BUDGET per FTE

|  | Total Statutory |  | Total Statutory Direct |  | Total Statutory Indirect |  | Statutory Indirect Budget per Total FTE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NERC | \$ | 346,590 | \$ | 311,007 | \$ | 412,319 | \$ | 144,816 |
| FRCC |  | 231,712 |  | 237,424 |  | 193,728 |  | 25,321 |
| MRO |  | 243,028 |  | 206,894 |  | 341,369 |  | 91,728 |
| NPCC |  | 400,937 |  | 342,576 |  | 581,596 |  | 142,007 |
| RF |  | 259,789 |  | 233,370 |  | 364,017 |  | 73,610 |
| SERC |  | 203,251 |  | 177,832 |  | 260,735 |  | 79,943 |
| SPP RE |  | 360,553 |  | 205,420 |  | 1,334,446 |  | 183,359 |
| Texas RE |  | 199,728 |  | 175,032 |  | 270,630 |  | 69,913 |
| WECC |  | 191,273 |  | 187,329 |  | 199,406 |  | 65,115 |
| AVERAGE |  |  |  |  |  |  | \$ | 97,312 |


[^0]:    ${ }^{1}$ The Member Representatives Committee (MRC) comprises 28 voting representatives elected from the 12 membership sectors. The MRC elects the independent trustees and, along with the Board, votes on amendments to the Bylaws. The MRC also provides policy advice and recommendations to the Board on behalf of stakeholders with respect to annual budgets, business plans, and other matters pertinent to the purpose and operation of the organization.
    ${ }^{2}$ WECC has sub-delegated its Reliability Coordinator ("RC") and Interchange Authority ("IA") functions to Peak Reliability, which commenced operations and assumed the RC and IA functions within the WECC footprint on January 2, 2014.

[^1]:    ${ }^{3}$ The term ERO Enterprise refers to NERC and the eight Regional Entities.
    ${ }^{4}$ This was codified in section 215 of the Federal Power Act, 16 United States C. 824o.

[^2]:    ${ }^{5}$ See http://www.nerc.com/comm/RISC/Related\%20Files\%20DL/RISC Priority Recommendations-Jul 26 2013.pdf for the complete report.
    ${ }^{6}$ Please refer to Reliability Assessment and Performance Analysis program in Section A for additional detail regarding the overall planned risk project portfolio and associated projects within the respective program area details, as well as the consolidated resource allocations.

[^3]:    ${ }^{7}$ In addition to the foregoing risk-based activities, NERC also incorporates risk considerations into other program area activities as further described in Section A.

[^4]:    ${ }^{8}$ http://www.nerc.com/pa/Stand/Standards\%20Development\%20Plan\%20Library/Standards Independent Experts Review Project Report.pdf

[^5]:    ${ }^{9}$ North American Electric Reliability Corporation, Order on Compliance, 143 FERC 9 61,052 (2013)

    + North American Electric Reliability Corporation, Order on 2014 Business Plan and Budget of the North American Electric Reliability Corporation and Ordering Compliance Filing, 145 FERC ๆ 61,097 (2013).
    ${ }^{10}$ NERC and the Regional Entities budget Depreciation as an Operating Expense with an equal and offsetting credit against budgeted Fixed Asset Additions; as a result, the budgets do not include depreciation in the funding requirements.
    ${ }^{11}$ Accounting, Financial Statement and Budgetary Treatment of Penalties Imposed and Received for Violations of Reliability Standards, December 8, 2008 and as amended August 15, 2013
    ${ }^{12}$ Expanded Policy on allocation of Certain Compliance and Enforcement Costs, July 29, 2008

[^6]:    ${ }^{1}$ The budgeted change in working capital reflects both a reduction in excess working capital and operating reserves and the assumptions related to capital financing. Refer to Table B-1 on page 115 for a complete

[^7]:    ${ }^{13}$ Entities submitting comments included SCE, EEI, the ISO/RTO Council, Duke, TECO, Entergy, PP\&L, ITC Holdings, the APPA and LPPC. The full text of the comments may be found at the following link
    http://www.nerc.com/gov/bot/FINANCE/2014\%20Business\%20Plan\%20and\%20Budget2nd\%20Draft/ES-ISAC\%20Comments\%20Received\%20as\%20of\%2008-02-13.pdf

[^8]:    ${ }^{14}$ Depending on the nature of the expenditures that may or may not be capable of being capitalized. Examples would be expenses related to the development planning or to the extent a decision is made for a third party to develop, host and maintain the application. To the extent the expenditures cannot be capitalized they will be recorded as a variance in contractor and consulting expenses which are recorded under the operating expense portion of NERC's budget. However, management is committed to working with the limitations of its overall operating and capital budget with respect to enterprise software and hardware relate expenditures.
    ${ }^{15}$ The increase to $\$ 2 \mathrm{M}$ from the initial draft of NERC's 2015 business plan and budget is subject to the receipt of necessary board of trustees and FERC authorizations to apply $\$ 1 \mathrm{M}$ in penalty funds received on July 9, 2014 to reduce 2015 assessment funding requirements.

[^9]:    *The 2014 budget allocation between the Critical Infrastructure Department and ES-ISAC is slightly different than the allocation presented in the 2014 Business Plan and Budget due to a correction in the allocation of costs between the two departments.

[^10]:    ${ }^{1}$ The budgeted change in working capital reflects both a reduction in excess working capital and operating reserves and the assumptions related to capital financing. Refer to Table B-1 on page 115 for a complete analvsis of the Working Capital and Operating Reserve balance.

[^11]:    ${ }^{16}$ See http://www.nerc.com/pa/Stand/Pages/Project2010-05 Protection System Misoperations.aspx
    ${ }^{17}$ See http://www.nerc.com/pa/Stand/Pages/Project-2009-02-Real-time-Reliability-Monitoring-and-Analysis-Capabilities.aspx

[^12]:    ${ }^{18}$ http://www.nerc.com/pa/comp/Pages/Reliability-Assurance-Initiative.aspx.

[^13]:    19 FNet - Operated by the Power Information Technology Laboratory at the University of Tennessee, FNET is a low-cost, quickly deployable GPS-synchronized wide-area frequency measurement network. High dynamic accuracy Frequency Disturbance Recorders (FDRs) are used to measure the frequency, phase angle, and voltage of the power system at ordinary 120 V outlets. The measurement data are continuously transmitted via the internet to the FNET servers hosted at the University of Tennessee and Virginia Tech.

[^14]:    ${ }^{20}$ The core process for Event Analysis is outlined in the Board-approved process: Electric Reliability Organization Event Analysis Process - Version 2 (July 2013).

[^15]:    ${ }^{21}$ Security Reliability Program, formerly known as the Sufficiency Review Program, was renamed to reflect the program's focus.

[^16]:    22 In 2013, FERC approved CIP Version 5 (CIP-002-5 through CIP-011-1), which now categorizes cyber assets as Low, Medium, or High-Impact assets, requiring that all BES cyber assets be provided a level of protection based on their impact to the grid.

[^17]:    ${ }^{23}$ The Information Security Analysis Center (ISAC) construct was conceived and operates under US Government authorities derived from Presidential Decision Directive 63, which was signed in 1998. The ISACs focus specifically on information sharing, analytics and sector activities directly related to the protection of critical infrastructure.
    ${ }^{24}$ Subsequent administrations have sought to continue and strengthen information sharing in other sectors by establishing other sector-specific ISACs. In 2013, the Department of Energy (DOE) again reaffirmed its desire for NERC to continue to operate the ES-ISAC.

[^18]:    ${ }^{25}$ The full text of the comments may be found at the following link:
    http://www.nerc.com/gov/bot/FINANCE/2014\%20Business\%20Plan\%20and\%20Budget2nd\%20Draft/ES-ISAC\%20Comments\%20Received\%20as\%20of\%2008-02-13.pdf

[^19]:    ${ }^{26}$ Review and approval of learning activity applications results in over 400,000 hours of continuing education per year for the industry's certified system operators.

[^20]:    ${ }^{1}$ As further explained in the discussion of the Working Capital Reserve amount in Exhibit E, funds classified as Working Capital offset future, noncurrent liabilities. The calculation of Working Capital and Operating Reserve balances per 2013 audited financials and as projected for 2014 and 2015 is included with the Statements of Financial Position on page 97.
    ${ }^{2}$ The use of Unknown Contingency reserves includes the $\$ 1,222,471$ budgeted reduction in reserves in 2014.
    ${ }^{3}$ On August 14, 2014, the NERC Board of Trustees approved the Working Capital and Operating Reserve Balance at 12/31/15.

[^21]:    ${ }^{27}$ Further information regarding the increase in Trustee fees may be found in the background materials to Agenda Item 2 on the August 14, 2013, Corporate Governance and Human Resources Committee agenda.

[^22]:    28 See Operational Oversight Model Whitepaper
    ${ }^{29}$ NERC recognizes there are often unique factors that drive differences in each entity or organization's final determination of its resource needs and budget. Regional Entity-specific assumptions are stated in each Regional Entity's business plan and budget as appropriate.

[^23]:    ${ }^{30}$ The approach for determining whether a Reliability Standard has met a sustainable high quality and content score will be developed by NERC staff and the Standards Committee and reviewed with stakeholders. Any needed changes to the Standard Processes Manual (SPM) required to implement this approach will be addressed prior to the pace being established.

[^24]:    ${ }^{31}$ These statements, which are generally organized by program area, are intended to help generally guide resource allocation decision making in the development of the 2015 business plans and budgets.

[^25]:    ${ }^{32}$ North American Electric Reliability Corporation, Order Accepting 2013 Business Plan and Budget of the North American Electric Reliability Corporation and Ordering Compliance Filing, 141 FERC 9 61,086 (2012) ("2013 Budget Order"). Recommendation 38, as adopted in the 2013 Budget Order, is: "In its annual business plan and budget filings, [NERC should] provide an explanation as to why the proposed activities to be undertaken by each program area for the budget year are statutory, including, at a minimum: a description and the purpose of the major activities to be taken by each program area and an explanation for why the activity is a statutory activity." Id. at P 16 .
    ${ }^{33}$ Compliance Filing of the North American Electric Reliability Corporation in response to paragraph 30 of November 2, 2012 Commission Order - NERC Written Criteria for Determining Whether a Reliability Activity is Eligible to be Funded Under Federal Power Act Section 215, filed February 1, 2013 in Docket No. FA 11-21-000 ("February 1, 2013 Compliance Filing").
    ${ }^{34}$ North American Electric Reliability Corporation, Order on Compliance, 143 FERC 9 61,052 (2013) ("Compliance Order").
    ${ }^{35}$ For ease of reference, the complete NERC written criteria, as modified in accordance with the Compliance Order, are provided at the end of this Exhibit.

[^26]:    ${ }^{36}$ This document uses the term "Bulk Power System" because that is the term defined and used in FPA §215. NERC recognizes that a different term, "Bulk Electric System," is used to define the current reach of Reliability Standards.

[^27]:    ${ }^{37}$ Although certification of system operating personnel is an activity falling within the scope of, and eligible to be funded pursuant to, FPA $\S 215$, NERC strives to fully fund the costs of this activity through fees charged to participants.

[^28]:    38 The interest rate at closing was lower than projected for purposes of the 2014 budget. As detailed in the company's approved 2014 Business Plan and Budget, any difference between actual and budgeted interest expense for draws under the credit facility becomes an addition to the company's Unforeseen Contingency Operating Reserve balance.
    ${ }^{39}$ This capital investment amount is exclusive of approximately $\$ 640 \mathrm{k}$ in expenses which were incurred in 2013 in the development of the Events Information Data System application and expensed rather than capitalized, as further discussed in the company's Q1 2014 budget variance report presented to the NERC Finance and Audit Committee.

[^29]:    ${ }^{40}$ Refer to the Statement of Financial Position on page 99, Deferred rent - non-current
    ${ }^{41}$ To the extent the company seeks to utilize such funds for any other purpose, prior approval of the Finance and Audit Committee is required. In addition, in the event the amount requested to be utilized for such other purpose is $\$ 500,000$ or more, prior approval of the Board of Trustees and filing with the Federal Energy Regulatory Commission is also required.

[^30]:    ${ }^{42}$ Per FERC approved allocation policies applicable to NERC and Regional Entity budgets, penalty funds and interest earnings are allocated among departments based on the ratio of budgeted department FTEs to total FTEs.

[^31]:    *The increase in assessments due to CRISP is on a 'stand alone' basis for the ES-ISAC Program. The increase in assessments for 'Total NERC' is approximately $\$ 460 k$, because indirect expenses and the fixed assets, excluding the $\$ 100 \mathrm{k}$ budgeted for CRISP, were already included in the total funding requirment without CRISP.

[^32]:    ${ }^{1}$ In support of ERO Goal 1a Develop Standards which are clear, responsive to reliability and security risks, practical to implement, and cost-effective
    ${ }^{2}$ In support of ERO Goal 1a Develop Standards which are clear, responsive to reliability and security risks, practical to implement, and cost-effective
    ${ }^{3}$ In support of ERO Goal 1a Develop Standards which are clear, responsive to reliability and security risks, practical to implement, and cost-effective

[^33]:    ${ }^{4}$ In support of ERO Goal 1a Develop Standards which are clear, responsive to reliability and security risks, practical to implement, and cost-effective
    ${ }^{5}$ In support of ERO Goal 1a Develop Standards which are clear, responsive to reliability and security risks, practical to implement, and cost-effective

[^34]:    ${ }^{6}$ In support of ERO Goal 2. Be a strong enforcement authority that is independent, without conflict of interest, objective and fair.
    ${ }^{7}$ In support of ERO Goal 3. Promote a culture of compliance that supports reliability excellence within industry.
    ${ }^{8}$ In support of ERO Goal 2. Be a strong enforcement authority that is independent, without conflict of interest, objective and fair.
    ${ }^{9}$ ERO Goal 2. Be a strong enforcement authority that is independent, without conflict of interest, objective and fair.
    ${ }^{10}$ ERO Goal 6. Promote a culture of reliability excellence.

[^35]:    ${ }^{11}$ ERO Goal 2. Be a strong enforcement authority that is independent, without conflict of interest, objective and fair.
    ${ }^{12}$ ERO Goal 2. Be a strong enforcement authority that is independent, without conflict of interest, objective and fair.; ERO Goal 5 . Be accountable for mitigating reliability risks.
    ${ }^{13}$ In support of ERO Goal 3a. and 3b. Promote a culture of compliance that supports reliability excellence within industry.
    ${ }^{14}$ In support of ERO Goal 3. Promote a culture of compliance that supports reliability excellence within industry.
    ${ }^{15}$ In support of ERO Goal 3. Promote a culture of compliance that supports reliability excellence within industry.
    ${ }^{16}$ In support of ERO Goal 3. Promote a culture of compliance that supports reliability excellence within industry.
    ${ }^{17}$ In support of ERO Goal 3. Promote a culture of compliance that supports reliability excellence within industry.
    ${ }^{18}$ In support of Goal 2a. Be a strong enforcement authority that is independent, without conflict of interest, objective, and fair, and promote a culture of reliability excellence through risk-informed compliance monitoring and enforcement. a. The ERO registers and deregisters entities commensurate with risk to the BES and ensures all key reliability entities are certified to have essential capabilities.
    ${ }^{19}$ In support of Goal 2a. Be a strong enforcement authority that is independent, without conflict of interest, objective, and fair, and promote a culture of reliability excellence through risk-informed compliance monitoring and enforcement. a. The ERO registers and deregisters entities commensurate with risk to the BES and ensures all key reliability entities are certified to have essential capabilities.
    ${ }^{20}$ In support of Goal 4a. Identify the most significant risks to reliability, be accountable for mitigating reliability risks, and promote a culture of reliability excellence. a. Risks are identified and prioritized based on reliability impacts, cost and practicality of assessments, projected resources, and emerging issues.

[^36]:    ${ }^{21}$ In support of Goal 3a. Promote a culture of compliance that supports reliability excellence within industry. a. Industry has effective procedures and programs to monitor, detect, correct, report, and prevent compliance, reliability, and security issues.
    ${ }^{22}$ In support of Goal 3a and 4a Goal 3. Promote a culture of compliance that supports reliability excellence within industry. Industry has effective procedures and programs to monitor, detect, correct, report, and prevent compliance, reliability, and security issues. Goal 4. Identify the most significant risks to reliability, be accountable for mitigating reliability risks, and promote a culture of reliability excellence. a. Risks are identified and prioritized based on reliability impacts, cost and practicality of assessments, projected resources, and emerging issues.
    ${ }^{23}$ In support of Goal 2b. Goal 2. Be a strong enforcement authority that is independent, without conflict of interest, objective, and fair, and promote a culture of reliability excellence through risk-informed compliance monitoring and enforcement. 2.b. The ERO holds industry accountable for violations that create serious risk to the BES; resulting actions are timely and transparent to industry.
    ${ }^{24}$ In support of Goal 4c. Goal 4. Identify the most significant risks to reliability, be accountable for mitigating reliability risks, and promote a culture of reliability excellence. 4.c. ERO supports industry situational awareness and cybersecurity preparedness and provides independent reliability information to policy makers.
    ${ }^{25}$ In support of Goal 5c. Goal 5. Improve transparency, consistency, quality, and timeliness of results; operate as a collaborative enterprise; and improve efficiencies and cost-effectiveness. 5.c. The ERO internal risks are understood and managed; ERO processes are effective, efficient, and continuously improved.
    ${ }^{26}$ In support of Goal 5a. Goal 5. Improve transparency, consistency, quality, and timeliness of results; operate as a collaborative enterprise; and improve efficiencies and cost-effectiveness. 5.a. The ERO acts in a coordinated and collaborative manner with stakeholders.

[^37]:    ${ }^{27}$ In support of ERO Goal 4.- Identify the most significant risks to reliability, be accountable for mitigating reliability risks, and promote a culture of reliability excellence
    ${ }^{28}$ In support of ERO Goal 5.c - The ERO internal risks are understood and managed; ERO processes are effective, efficient, and continuously improved.

[^38]:    ${ }^{29}$ In support of ERO Goal 4.b - Events and system performance are consistently analyzed for sequence, cause, and remediation to identify reliability risks and trends and lessons learned.
    ${ }^{30}$ In support of ERO Goal 4.d - Reliability models and data accurately represent system behavior and are shared among stakeholders.
    ${ }^{31}$ In support of ERO Goal 5.c - The ERO internal risks are understood and managed; ERO processes are effective, efficient, and continuously improved.
    ${ }^{32}$ In support of ERO Goal 4.a - Risks are identified and prioritized based on reliability impacts, cost and practicality of assessments, projected resources, and emerging issues.
    ${ }^{33}$ In support of ERO Goal 2.a - The ERO registers and deregisters entities commensurate with risk to the BES and ensures all key reliability entities are certified to have essential capabilities.
    ${ }^{34}$ FERC Order Accepting the Revised [BES] Definition at: http://www.nerc.com/pa/RAPA/BES\%20DL/2014-03-20\%20BES\%20-\%20FERC\%20Order\%20Approving\%20Revised\%20Definition.pdf
    ${ }^{35}$ In support of ERO Goal 4.d - Reliability models and data accurately represent system behavior and are shared among stakeholders.

[^39]:    ${ }^{36}$ In support of ERO Goal 4 - Identify the most significant risks to reliability, be accountable for mitigating reliability risks, and promote a culture of reliability excellence.

[^40]:    ${ }^{37}$ In support of ERO goal 4.b. Provide lessons learned and recommendations from events and identified risks.
    ${ }^{38}$ In support of ERO goal 4.b. Analyze significant events to identify gaps in standards, compliance effectiveness, registration, and risk controls effectiveness.

[^41]:    ${ }^{39}$ In support of ERO Goal 4.b. Events and system performance are consistently analyzed for sequence, cause, and remediation to identify reliability risks and trends and lessons learned.

[^42]:    ${ }^{40}$ In support of ERO Goal 4.c. ERO supports industry situational awareness and cybersecurity preparedness and provides independent reliability information to policy makers.

[^43]:    ${ }^{41}$ In support of ERO Goal 4.c. ERO supports industry situational awareness and cybersecurity preparedness and provides independent reliability information to policy makers.

[^44]:    ${ }^{42}$ In support of ERO Goal 5.b. Issue and track security recommendations to protect the bulk power system (related to 5.a.ii.)
    ${ }^{43}$ In support of ERO Goal 1. b. Facilitate smooth transition of new standards (e.g., CIP Version 5); and ERO Goal 3.a. Initiate compliance phase-in learning periods for new standards
    ${ }^{44}$ In support of ERO Goal 5.a. Manage risk control initiatives to be completed by ERO and coordinate other initiatives with industry (e.g., relay misoperations, situational awareness, human error, cyber attack)
    ${ }^{45}$ In support of ERO Goal 5.b. Expand the use and value of security threat and vulnerability information sharing, analytics, and analysis

[^45]:    ${ }^{46}$ In support of ERO Goal 5.b.Issue and track security recommendations to protect the bulk power system (related to 5.a.ii.)
    ${ }^{47}$ In support of ERO Goal 5.a. Manage risk control initiatives to be completed by ERO and coordinate other initiatives with industry (e.g., relay misoperations, situational awareness, human error, cyber attack)
    ${ }^{48}$ In support of ERO Goal 5.a. Manage risk control initiatives to be completed by ERO and coordinate other initiatives with industry (e.g., relay misoperations, situational awareness, human error, cyber attack)
    ${ }^{49}$ In support of ERO Goal 4.b. Provide lessons learned and recommendations from events and identified risks

[^46]:    ${ }^{50}$ ERO Goal 7.b. Develop test and deploy ERO enterprise applications, platform and database
    ${ }^{51}$ ERO Goal 6.b. Evaluate event disturbances using phasor measurements and other methods to assess sufficiency of data and models;
    ERO Goal 4.b. Provide lessons learned and recommendations from events and identified risks;
    ERO Goal 4.b. Merge event driven databases and cause codes into one (e.g., event analysis, TADS, GADS, relay mis-operations)
    ${ }^{52}$ ERO Goal 2.a. Develop and implement BES exception process.

[^47]:    ${ }^{1}$ Copies of the comments received on the posted drafts of the 2015 Business Plan and Budget are available at: http://www.nerc.com/gov/bot/FINANCE/Pages/2015NERCBusinessPlanandBudget.aspx. The policy input received is available at: http://www.nerc.com/gov/bot/Pages/Agenda-Highlights-and-Minutes-.aspx.
    ${ }^{2}$ Available at: http://www.nerc.com/gov/bot/Documents/2014\%20Stakeholder\%20Input\%20Matrix\%20Tracking_Augu st 2014.pdf.

[^48]:    ${ }^{1}$ Terrestrial weather excluded from metric, however space weather (GMD) is included in metric.

[^49]:    ${ }^{2}$ Regional standards are not included, this applies to NERC only.
    ${ }^{3}$ Based on Independent Expert Review Team scoring method 3 out of 3 on content and at least 10 out of 12 on quality.

[^50]:    ${ }^{4}$ ERO Enterprise Caseload Index is defined as Violations in ERO Inventory (defined as Active violations that have not been filed with FERC) divided by the total number of violations filed with FERC over previous 12-months (NOPs, SNOPs, FFTs and Dismissals) multiplied by 12.

[^51]:    ${ }^{5}$ Final metrics to be discussed and approved at the February 2014 BOTCC meeting.

[^52]:    ${ }^{1}$ An "operational" audit as referred to in this Attachment is an audit of the registered entity's compliance with the operations and planning or "Order 693" reliability standards. For purposes of this presentation (and consistent with the definitions used in the 2010, 2011, 2012, 2013, and 2014 Business Plan and Budget filings), a "small" operational compliance audit involves 25 or fewer reliability standard requirements to be audited; a "medium" operational compliance audit involves 26 to 75 requirements to be audited; and a "large" operational compliance audit involves more than 75 requirements to be audited. An on-site compliance audit takes place at the registered entity's site, while an off-site compliance audit takes place at another location, typically the Regional Entity's offices. As can be seen from the table on page 4 and from the bar charts on pages $8-10$, MRO, ReliabilityFirst, (RF), SPP RE, Texas RE and WECC are not planning any "small" on-site operational compliance audits in 2015; NPCC, SPP RE and WECC are not planning any "medium" on-site operational compliance audits in 2015; and MRO and RF are not planning any "large" on-site operational audits in 2015. Also, Texas RE is not planning any "small" off-site operational compliance audits in 2015; FRCC, RF, SERC, and SPP RE are not planning any "medium" off-site operational audits in 2015; and FRCC, MRO, RF, and SPP RE are not planning any "large" off-site audits.
    ${ }^{2}$ For purposes of this presentation, a "small" CIP compliance audit involves an entity with no critical cyber assets and 5 requirements. (There are requirements of the CIP standards that apply to registered entities with no critical cyber assets, for example, the requirements of CIP-002 which require the registered entity to have a risk-based assessment methodology and to use it annually to identify any critical assets and critical cyber assets, even if the result is "none;" and the requirements of CIP-003 that the registered entity have in place a cyber security policy and a designated, single senior manager with overall responsibility for leading the entity's compliance with the CIP standards.) A "large" CIP compliance audit involves any entity with critical cyber assets and 5 requirements, auditing 43 requirements or 162 sub-requirements. These definitions are the same as used in Attachment 15 of the

[^53]:    2012 and 2013 Business Plan and Budget filings, and Attachment 16 of the 2014 Business Plan and Budget filing. As can be seen from the table on page 4 and the bar charts on page 10, only SERC is planning any "small" on-site CIP audits in 2015 and all the Regional Entities are planning only "small" off-site CIP audits in 2015. This fact reflects that if there is a need to audit the registered entity's compliance with 43 or more requirements or 162 or more sub-requirements of CIP standards, the Regional Entity will likely conclude that an on-site compliance audit should be conducted. The decision to conduct an on-site CIP audit can also be influenced by the need for the Regional Entity's CIP audit staff to review facilities and equipment that are the subject of Technical Feasibility Exception (TFE) requests or audit the registered entity's compliance with the terms of an approved TFE.
    ${ }^{3}$ FTE $=$ full-time equivalent employee. Each FTE is assumed to work 2,080 hours per year. An employee working less than 2,080 hours per year is counted as a fractional FTE based on number of hours divided by 2,080 hours.
    ${ }^{4}$ ERO funding is defined as the sum of assessments and penalty sanctions.

[^54]:    ${ }^{5}$ Total budget is defined as the sum of total expenses and the total increase in fixed assets.

[^55]:    ${ }^{6}$ The data on numbers of registered entities and registered functions in each Region used in the 2015 budget metrics are as of April, 2014 for the MRO, NPCC, RF, SERC, and SPP RE Regions, and June 2014 for the FRCC, Texas RE and WECC Regions.

[^56]:    ${ }^{7}$ There is a variation among the Regional Entities in terms of registered functions per registered entity, ranging from a high value of 3.6 registered functions per registered entity for FRCC to a low value of 2.0 registered functions per registered entity for NPCC, RF and Texas RE. The overall average is 2.7 registered functions per registered entity. (See the data lines on page 7.) The values of this metric for each Regional Entity are generally consistent with the values based on the 2011, 2012, 2013, and 2014 Business Plans and Budgets. Not surprisingly, neither the average nor the values of this metric for the individual Regional Entities have changed significantly. There is not an obvious reason why some Regional Entities (MRO and FRCC) have 1.68 to 1.78 times more registered functions per registered entity than do other Regional Entities (NPCC, Texas RE and RF), and in any event this is a metric that is outside the control of the Regional Entities.
    ${ }^{8}$ In the regression analysis that was provided in Attachment 15 of the 2012 Business Plan and Budget filing, the $R^{2}$ value for the plot based on number of registered functions was 0.7126 while the $R^{2}$ value for the plot based on number of registered entities was 0.725 . In the regression analysis that was provided in Attachment 15 of the 2013 Business Plan and Budget filing, the $\mathrm{R}^{2}$ value for the plot based on number of registered functions was 0.7758 while the $\mathrm{R}^{2}$ value for the plot based on number of registered entities was

[^57]:    ${ }^{9}$ It is possible that implementation the revised Bulk Electric System (BES) definition, which became effective on July 1, 2014, and the application of the BES Definition exception procedure (Appendix 5C to the NERC Rules of Procedure), will result in some changes in registrations, at least in some Regions.
    ${ }^{10}$ These two metrics, however, do not capture other Compliance Program resources, most notably contractor or consultant support, nor support that other departments (such as Legal and Regulatory) may provide to the Regional Entities' Compliance Programs.
    ${ }^{11}$ Estimated costs of a particular size or type of audit are not provided in the table on page 4 or in the applicable bar chart on pages 8 through 10 if no audits are planned.

[^58]:    ${ }^{12}$ It should be noted that although the cost to use a contractor or consultant on an individual audit assignment may be more costly than using a Regional Entity employee, the annual cost to the Regional Entity of retaining a contractor or consultant for a specific targeted assignment such as participating in certain compliance audits may be less than the cost of maintaining a FTE employee on staff for the year.

[^59]:    ${ }^{1}$ NERC and Regional Entity provisions for Working Capital Reserve are not included in the budget data used to calculate these metrics.
    ${ }^{2}$ FTE $=$ Full-time equivalent employee.

