

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2016 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 1**

**SUMMARY TABLES FOR NERC AND REGIONAL ENTITY**

**PROPOSED 2016 BUDGETS AND ASSESSMENTS**

**NERC'S Proposed Budget by Program<sup>1</sup>**

NERC Program	2015 Budget for Statutory Functions	2016 Budget for Statutory Functions
Reliability Standards	\$ 10,247,145	\$ 8,193,116
Compliance Monitoring and Enforcement and Organization Registration and Certification		
Compliance Assurance	\$ 5,737,572	\$ 9,420,903
Compliance Analysis, Certification and Registration	\$ 4,864,863	\$ 4,632,871
Compliance Enforcement	\$ 5,806,866	\$ 5,293,298
Reliability Assessments and Performance Analysis	\$ 9,825,750	\$ 9,918,728
Training, Education and Operator Certification	\$ 3,950,926	\$ 3,912,231
Reliability Risk Management		
Event Analysis	\$ 4,203,169	\$ 5,355,795
Situation Awareness	\$ 3,646,902	\$ 3,692,197
ES-ISAC <sup>2</sup>	\$ 18,366,116	\$ 16,767,525
<b>Total Budget</b>	<b>\$ 66,649,309</b>	<b>\$ 67,186,665</b>

<sup>1</sup>Does not include the proposed provision for Working Capital reserve funding

<sup>2</sup>During 2015, NERC combined its Critical Infrastructure Department (CID) into the ES-ISAC for both operational and budgeting and financial reporting purposes. The comparison of 2016 budget information for ES-ISAC to 2015 budget amounts is based on the combined 2015 budgets for the ES-ISAC and the CID.

**Proposed Budget for Statutory Activities of NERC, each Regional Entity and WIRAB<sup>1</sup>**

	2015 Budget for Statutory Functions	2016 Budget for Statutory Functions
NERC	\$ 66,649,309	\$ 67,186,665
FRCC	\$ 7,162,233	\$ 7,261,527
MRO	\$ 10,328,687	\$ 11,354,641
NPCC	\$ 14,778,539	\$ 15,072,997
RF	\$ 18,756,763	\$ 19,367,209
SERC	\$ 15,995,840	\$ 15,866,845
SPP RE	\$ 11,808,110	\$ 10,095,820
TRE	\$ 11,983,701	\$ 11,782,215
WECC	\$ 26,300,035	\$ 27,384,956
WIRAB	\$ 1,013,857	\$ 1,370,274
<b>Total Budget</b>	<b>\$ 184,777,074</b>	<b>\$ 186,743,149</b>

<sup>1</sup>Does not include the proposed provision for Working Capital reserve funding

**Proposed Assessments for Statutory Activities of NERC and each Regional Entity**

	Assessments for Statutory Functions 2015		Allocation to Canada 2015		Assessments for Statutory Functions 2016		Allocation to Canada 2016	
NERC	\$	55,308,375	\$	5,111,411	\$	57,081,445	\$	5,135,852
FRCC	\$	6,062,838	\$	-	\$	6,628,457	\$	-
MRO	\$	9,426,019	\$	1,579,249	\$	10,891,562	\$	1,820,475
NPCC	\$	14,068,878	\$	5,309,142	\$	14,349,196	\$	5,389,980
RFC	\$	18,713,897	\$	-	\$	19,367,209	\$	-
SERC	\$	13,731,034	\$	-	\$	13,730,986	\$	-
SPP RE	\$	9,680,648	\$	-	\$	8,626,751	\$	-
TRE	\$	10,500,446	\$	-	\$	9,560,448	\$	-
WECC <sup>1</sup>	\$	26,090,293	\$	2,795,630	\$	26,272,132	\$	3,095,583
<b>Total Budget</b>	<b>\$</b>	<b>163,582,428</b>	<b>\$</b>	<b>14,795,433</b>	<b>\$</b>	<b>166,508,186</b>	<b>\$</b>	<b>15,441,890</b>

<sup>1</sup> Includes assessments for WECC and WIRAB

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2016 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 2**

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**PROPOSED 2016 BUSINESS PLAN AND BUDGET**

**NERC**

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

# 2016 Business Plan and Budget

August 13, 2015

**RELIABILITY | ACCOUNTABILITY**



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# About NERC

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## 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 Power System (BPS)<sup>1</sup> 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 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) certifies and has oversight of NERC as the electric reliability organization (ERO) within the United States to establish and enforce Reliability Standards for the U.S. portion of the BPS, pursuant to Section 215 of the Federal Power Act (§215).<sup>2</sup> 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 BPS 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 §215 in the United States, the Canadian provinces of Ontario (in 2002) and New Brunswick (in 2004) adopted all Reliability Standards that were approved by the NERC Board of Trustees (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’s standards are mandatory and enforceable in Ontario and New Brunswick as a matter of provincial law. Manitoba has adopted legislation, and standards are also mandatory. 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 Comisión Federal de Electricidad has signed WECC’s reliability management system agreement, which applies only to Baja California Norte.

## Membership and Governance

An 11-member Board, comprised of 10 independent directors and NERC’s president and chief executive officer serving as the management trustee, governs NERC. The Board has 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.

Membership in NERC is open to any person or entity that has an interest in the reliability of the North American BES. Membership is voluntary and affords participants the opportunity to engage in the

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<sup>1</sup> NERC’s standards, compliance and enforcement activities are focused on the [Bulk Electric System \(BES\)](#), which is comprised of certain BPS facilities.

<sup>2</sup> [ERO Enterprise Strategic Plan](#)



governance of the organization through election to the Member Representatives Committee (MRC).<sup>3</sup> More than 600 entities and individuals are members of NERC.

## Scope of Oversight

As the international, multijurisdictional ERO in North America, 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 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 BPS reliability;
- Coordinate efforts to improve physical security and cybersecurity for the BPS of North America;
- Conduct detailed analyses and investigations of system disturbances and unusual events as well as measure ongoing system trends 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, SERC Reliability Corporation (SERC), Southwest Power Pool Regional Entity (SPP RE), Texas Reliability Entity, Inc. (Texas RE), and the Western Electricity Coordinating Council (WECC)<sup>4</sup>). 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 enforcement of mandatory 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 (the Enterprise). In 2014, a common operating model, Improving Coordinated Operations Across the ERO Enterprise<sup>5</sup> was developed to define how NERC and the Regional Entities achieve excellence in the oversight and execution of statutory functions by collaborating to mitigate reliability risks. The model also defines the division of the roles and

<sup>3</sup> 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.

<sup>4</sup> WECC has sub-delegated its Reliability Coordinator (“RC”) function to Peak Reliability, which commenced operations and assumed the RC function within the WECC footprint on January 2, 2014.

<sup>5</sup> [Improving Coordinated Operations Across the ERO Enterprise](#)

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, 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 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,<sup>6</sup> 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 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, NERC's annual funding is provided through assessments to load-serving entities. These assessments are allocated 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.

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.

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<sup>6</sup> This was codified in section 215 of the Federal Power Act, 16 United States C. 824o.

## Introduction and Executive Summary

TOTAL RESOURCES (in whole dollars)				
	2016 Budget	U.S.	Canada	Mexico
Statutory FTEs	192.47			
Non-statutory FTEs				
<b>Total FTEs</b>	192.47			
Statutory Expenses	\$ 65,797,608			
Non-Statutory Expenses	-			
<b>Total Expenses</b>	\$ 65,797,608			
Statutory Inc (Dec) in Fixed Assets	\$ 1,269,057			
Non-Statutory Inc (Dec) in Fixed Assets	-			
<b>Total Inc (Dec) in Fixed Assets</b>	\$ 1,269,057			
Statutory Working Capital Requirement	\$ 380,490			
Non-Statutory Working Capital Requirement				
<b>Total Working Capital Requirement</b>	\$ 380,490			
<b>Proceeds from Financing Activities</b>	\$ 55,000			
Total Statutory Funding Requirement	\$ 67,502,155			
Total Non-Statutory Funding Requirement	\$ -			
<b>Total Funding Requirement</b>	\$ 67,502,155			
<b>Statutory Funding Assessments</b>	\$ 57,081,445	\$ 51,785,828	\$ 5,135,852	\$ 159,765
<b>Non-Statutory Fees</b>				
NEL	4,536,826,392	4,001,404,260	523,411,096	12,011,036
NEL%	100.00%	88.20%	11.54%	0.26%

## Strategic Goals, Objectives, and Metrics

Developing the common operating model for NERC and the Regional Entities helped align the Enterprise's business-planning goals, objectives, metrics, and assumptions for the 2015–2018 planning period. In November 2014, the NERC Board approved an updated version of the *ERO Enterprise Strategic Plan*. Prior to its approval, NERC's Board requested stakeholder input on the plan as part of the November 2014 policy input request from the Member Representatives Committee (MRC). NERC posts the written comments and tracks and reports on corresponding actions in response to this input on an ongoing basis.

## Performance Metrics

As part of an ongoing effort to make improvements to its strategic plan, in 2014, NERC and the Regional Entities adopted four overarching performance metrics (standards; compliance, registration, and certification; risks to reliability; and coordination and collaboration) designed to assess the overall effectiveness of the Enterprise in addressing risk to, and improving the reliability of, the BES. The *ERO Enterprise Strategic Plan* includes five consolidated goals within these metrics.

The metrics concentrate on measuring reliability results, assuring standards and compliance effectiveness, and improving risk mitigation and program execution. They are reviewed annually as part of the strategic planning process and are prioritized based on current and planned activities and major initiatives.

### Demonstrating Success (2015–2018)

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

In November 2014, the NERC Board approved the 2015 performance metrics<sup>7</sup>. The four metrics, used in 2015 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 2015. The 2016 performance metrics are expected to be finalized in Q4 2015.

NERC publicly posts and reviews quarterly corporate performance results with the Board’s Corporate Governance and Human Resources Committee. The company also publicly posts and reviews with its Finance and Audit Committee unaudited financial results each quarter for both the company and the Regional Entities. Combined, these two reports provide both NERC’s Board and stakeholders with an overview of the company’s operational and financial performance, including any actions proposed to mitigate performance shortfalls.

## Stakeholder Engagement

NERC and the Regional Entities involve stakeholders in the early development of the strategic plan, in the identification of prioritized risk-based activities, and in the development of the *2016 Business Plan and Budget*. NERC obtained stakeholder input from a number of sources, including the Reliability Issues Steering Committee (RISC), other standing committees of the Board, and the MRC’s Budget Input Group, which was 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. All other critical infrastructure sectors are dependent on electric power, directly or indirectly. 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 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.

<sup>7</sup> [2015 performance metrics](#)

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 subsections 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 2016 and beyond will be to identify and 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<sup>8</sup> to the NERC Board and worked closely with NERC and Regional Entity staffs to review, analyze, and identify high-priority reliability risk areas of strategic importance for the ERO. This collaborative risk-based prioritization is being integrated into a multiyear 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.<sup>9</sup>

The following list identifies the current risk projects that were selected from this prioritization process and the areas for focus in 2015, with a number of these efforts extending into 2016. The list is not inclusive of all the activities that may be initiated in 2016. The final 2016 list will be identified after risk control projects are compiled and as the RISC makes recommendations regarding ERO priorities and associated projects. A preliminary set of 2016 project areas is provided in the discussion of the Reliability Assessment and Performance Analysis department's 2016 activities in Section A.

#### **2015 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 operating in conditions that are significantly different than for what it was designed and planned, which can expose 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 extreme physical events (such as physical attack, geomagnetic disturbance, or severe weather) that can 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. Though risk mitigation efforts (reducing the potential consequence) are underway, additional focus is needed to address the risk of extreme physical events and minimize both the duration of the events and the magnitude of their consequences.
3. **Cybersecurity Preparedness** – Threats to cyber systems with potential impacts to reliability remain a risk of significant importance to industry. This risk includes threats and vulnerabilities that result from the compromise of technology or communications that support the reliable

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<sup>8</sup> See [http://www.nerc.com/comm/RISC/Related%20Files%20DL/RISC\\_Priority\\_Recommendations-Jul\\_26\\_2013.pdf](http://www.nerc.com/comm/RISC/Related%20Files%20DL/RISC_Priority_Recommendations-Jul_26_2013.pdf) for the complete report.

<sup>9</sup> 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.

operations of the BES. NERC is committed to protecting the BES against cybersecurity compromises that could lead to misoperation of devices resulting in instability of the BPS. In 2015, NERC continued to support industry's transition from the currently enforceable CIP Version 3 standards directly to CIP Version 5. 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. The need for continued attention on cybersecurity preparedness is also addressed in the *2013 Long-Term Reliability Assessment*,<sup>10</sup> the *RISC's ERO Reliability Risk Priorities: RISC Updates and Recommendations* report,<sup>11</sup> the Cyber Attack Task Force final report,<sup>12</sup> the *2015 State of Reliability*, and NERC's *ERO Top Priority Reliability Risks 2014-2017*.<sup>13</sup>

4. **Protection System Misoperations** – NERC's 2012–2015 State of Reliability reports identified protection system misoperations as a significant threat to BES reliability. Additional activities with industry are ongoing to ensure this risk is adequately managed.
5. **Extreme Weather Preparedness and Resiliency Efforts** – Lack of generator preparedness for cold weather extremes may result in forced outages, deratings, and failures to start. Further, increased dependence on natural gas can exacerbate impacts if fuel becomes unavailable, either from well-head freeze-ups or pipeline constraints. Insufficient availability of intra-regional generation and limits on import transfer capability may result in insufficient generation to serve forecast load, which can result in load shedding.
6. **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.

Using the 2015 projects as a baseline for gauging 2016 resource requirements, NERC plans to provide an equivalent level of support in 2016 to address high-risk priority projects. Section A describes the resources required to support risk projects in 2016.<sup>14</sup>

### **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 requiring 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 standard requires registered entities to prioritize their most critical assets based on vulnerability and other criteria. The standard's final ballot closed with 86 percent approval from the ballot body. It was adopted by the Board and approved by FERC on November 20, 2014, with directives that were completed for filing in Q2 2015.

NERC 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 and efficient manner. CIP Version 5 represents a significant improvement over the current CIP Version 3 standards, as it includes new cybersecurity controls and extends the scope of the protected systems. NERC is deploying a transition program, with activities through the enforcement date of the Version 5 standards, designed to improve

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<sup>10</sup> [2013 Long-Term Reliability Assessment](#)

<sup>11</sup> [RISC's ERO Reliability Risk Priorities: RISC Updates and Recommendations](#)

<sup>12</sup> [Cyber Attack Task Force final report](#)

<sup>13</sup> [ERO Top Priority Reliability Risks 2014-2017](#)

<sup>14</sup> In addition to the foregoing risk-based activities, NERC also incorporates risk considerations into other program area activities as further described in Section A.

industry's understanding of the technical security requirements for CIP Version 5, as well as the expectations for compliance and enforcement.

NERC also operates the Electricity Sector Information Sharing and Analysis Center (ES-ISAC). The ES-ISAC directly benefits stakeholders by:

- serving as a central coordination hub for electricity sector cyber and physical risk, security information sharing, and sector coordination support;
- sharing information (in a declassified format) derived from classified threat and security vulnerability briefings that is otherwise not generally available; and
- enhancing industry-initiated security assessments through information sharing.

Through the ES-ISAC, NERC performs an oversight role with respect to the Cyber Risk Information Sharing Program (CRISP), a voluntary program to facilitate the exchange of detailed cybersecurity information between electric organizations, the ES-ISAC, and the US Department of Energy (DOE) to enable electric power critical infrastructure operators to better protect their networks from sophisticated cyber threats.

### **Risk-Based Compliance and Enforcement – (ERO Enterprise Goal 3 and Metric 4)**

NERC and the Regional Entities will continue to improve compliance monitoring and enforcement operations through the development and implementation of approaches based on reliability risk.

NERC completed the strategy for the Compliance Monitoring and Enforcement Program (CMEP) in late 2014 under its Reliability Assurance Initiative. During 2015, NERC and the Regional Entities began implementation activities supporting the risk-based approach to the CMEP. Implementation of risk-based compliance and enforcement activities is a multiyear effort to sustain and improve reliability by promoting efficiencies, eliminating undue regulatory burdens, streamlining documentation and reporting requirements, improving noncompliance processing, and developing new tools and training materials.

Based on the results and feedback associated with implementation efforts in 2015, several risk-based compliance and enforcement activities are planned for 2016 and beyond, including:

1. continued execution of training programs to support the implementation of the ERO Enterprise Compliance Monitoring and Enforcement Capabilities and Competencies Guide;
2. communication and education outreach events regarding risk-based CMEP implementation efforts;
3. design and implementation of governance, risk, and compliance management processes and tools to support compliance oversight planning and execution;<sup>15</sup>
4. compliance activities related to the successful transition to CIP Version 5; and
5. consolidation of new enforcement processes and activities.

### **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 became effective July 1, 2014, and NERC and the Regional Entities have both been engaged in activities supporting its implementation, including providing guidance on the consistent evaluation of the inclusion, exclusion, and self-notification of BES elements.

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<sup>15</sup> NERC's oversight of risk-based CMEP implementation by Regional Entities will include an evaluation of how risk-based compliance monitoring concepts are used and applied, as well as the associated results.



These implementation activities began in 2014 and include:

1. the BES element evaluation process and associated procedures to provide a uniform, clear way of determining assets contained within the BES;
2. the review of self-determined notifications by entities;
3. the review of entity-submitted exceptions to the BES definition by Regions and NERC;
4. the consideration of reviews and appeals of BES determinations and associated registration aspects;
5. the provision of guidance regarding Reliability Standard applicability; and
6. the management of compliance and enforcement monitoring.

The implementation of the BES definition through the end of 2015 is expected to address the majority of submittals, resulting in a steady-state condition in 2016.

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

The goal of risk-based registration is to enhance the registration criteria so they contain threshold criteria complemented by risk-based methods. In 2014, NERC and the Regional Entities developed a risk-based registration (RBR) program that ensures entities are properly registered or deregistered commensurate with risk to BES reliability, are properly scoped, and are responsible for applicable NERC 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 concentrates 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, NERC revisited and adjusted the registration criteria to focus more on a risk-based technical foundation. These adjustments are focused on avoiding unnecessarily registering all potential entities without consideration of their materiality and risks to reliability. This approach will be used to exclude entities with assets that would have a very low likelihood of posing a risk to the reliability of the BES, while at the same time adjusting the scope of Reliability Standard requirements that must be followed.

In November 2014, NERC's Board approved the first phase of RBR. On March 19, 2015, FERC approved RBR and requested more information on potential reliability impacts resulting from removing the load-serving entity function from the NERC Compliance Registry. NERC is currently addressing this information request. NERC has started the process of implementing the first phase of RBR by removing purchase-selling entities and interchange authorities from the registry. NERC will issue letters to affected entities notifying them of their new statuses. The second phase of RBR, concentrating on generator owners and operators and transmission owners and operators, is ongoing in 2015, with potential implementation in 2016.

### **Transforming 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" in regard to standards was defined in the 2015–2018 RSDP as a set of clear, concise, high-quality, and technically sound Reliability Standards that are results-based, including retiring requirements that do little to promote reliability. In their 2013 review of the NERC Reliability Standards,<sup>16</sup> a panel of independent experts also found that the

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<sup>16</sup> [http://www.nerc.com/pa/Stand/Standards%20Development%20Plan%20Library/Standards\\_Independent\\_Experts\\_Review\\_Project\\_Report.pdf](http://www.nerc.com/pa/Stand/Standards%20Development%20Plan%20Library/Standards_Independent_Experts_Review_Project_Report.pdf)



standards should be stable, necessary for accountability, and sufficient to maintain the reliability of the BES.

### **Cost Control and Efficiency**

NERC and the Regional Entities are focused on controlling costs and making improvements to load-serving and registered entity systems and processes. Working collaboratively with the Regional Entities under the oversight of NERC's Standards Oversight and Technology Committee, NERC has developed and refined a long-term enterprise information technology program. The enterprise software tools developed through this program reduce combined-information technology spending; improve productivity, event reporting, tracking, and root cause analysis; and streamline and improve registration, BES reliability assessments, data analysis, and sharing. NERC has also concentrated efforts to control travel and meeting expenses and reduce outside contractor, consulting, and legal expenses. Over the past several years and after a successful incubation period, NERC has also transitioned to industry the financial and operational support for certain reliability tools, as well as a data communication network used to support operations by reliability coordinators in the Eastern Interconnection. As discussed below and in Section A, NERC management evaluates the resource needs and allocation on an ongoing basis to ensure that resources are allocated in an efficient and effective manner in support of ERO priorities. NERC has also worked closely with the Regional Entities to streamline enforcement staff in connection with the development of more efficient and risk-based enforcement mechanisms. As standards development and enforcement processes have matured, NERC management has been able to reduce both standards and legal staff and reallocate budgeted open positions to support increased resource needs in connection with reliability risk analysis and assessments, compliance assurance, and cybersecurity initiatives.

### **2016 Key Business Planning Assumptions**

As part of the annual business planning process, NERC and the Regional Entities developed a set of common business planning assumptions that entities consider in developing their respective business plans and budgets. The Regional Entities used these assumptions to evaluate their projected workloads and determine resource levels required to complete necessary tasks and meet the obligations of their Regional Delegation Agreements. These common business planning 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.<sup>17</sup> Exhibit B summarizes the major activities NERC proposes to undertake in 2016 and the approved Section 215 criteria applicable to such activities.

### **Overview of 2016 Budget and Funding Requirements**

NERC's 2016 combined expense and fixed asset (capital) budget is approximately \$67.2M, which represents a decrease of approximately \$1.6M (2.3%) below Draft 1 of the 2016 budget and an increase of approximately \$537k (0.8%) over 2015. Total expenses are increasing approximately \$554k (0.8%) over 2015. The total fixed asset (capital) budget, before accounting for depreciation,<sup>18</sup> is approximately \$3.9M, an increase of approximately \$293k over 2015. Approximately \$7.98M (12%) of NERC's 2016 budget is related to CRISP. In the absence of CRISP, the 2016 budget would increase approximately \$1.9M (3.3%) over 2015 (without CRISP). As further explained in Section A – Electricity Sector Information Sharing and

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<sup>17</sup> North American Electric Reliability Corporation, Order on Compliance, 143 FERC ¶ 61,052 (2013).

<sup>18</sup> 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.

Analysis Center (ES-ISAC), the majority of the NERC CRISP budget will be funded by participating utilities, with only a small portion funded through assessments. A comparative statement of activities presenting NERC's 2016 budget with and without CRISP is set forth later in this section.

Without the application any offsets to assessments (as discussed below), NERC's total average assessments would increase \$3.2M (5.8%) over 2015. One of the primary differences between NERC's projected 0.8% 2016 budget increase and the 5.8% 2016 assessment increase (unadjusted) results from eliminating the one-time application of 2014 penalty funds used to offset U.S. assessments in 2015. This loss of penalty offsets will not impact Canadian or Mexican assessments, since U.S. penalty funds are only used to reduce U.S. assessments.<sup>19</sup> Other factors contributing to this difference include depreciation adjustments, debt assumptions, and projected reserve requirements, all of which impact assessments in the United States, Canada, and Mexico.

The allocation of assessments to U.S. entities depends on the final amount of penalty funds both available and applied to reduce assessments after taking into account NERC's policies on the allocation of U.S. penalty funds as well as the determination of the amount of penalty funds to be contributed to NERC's Assessment Stabilization Reserve pursuant to NERC's Working Capital and Operating Reserve Policy.<sup>20</sup>

In February 2015, NERC's Board approved an amendment to the company's Working Capital and Operating Reserve Policy. Among the approved changes to this policy was the creation of an Assessment Stabilization Reserve. The primary purpose of the Assessment Stabilization Reserve is to mitigate wide year-to-year swings in assessments that may result from, among other things, the loss of penalty fund offsets to assessments for the previous year, and to narrow the gap between annual percentage changes in NERC's budget and assessments that results from year-to-year changes in penalty collections. In accordance with the approved policy, this reserve may be funded with penalty funds and surplus operating reserves. The actual amount of the contribution, as well as releases from the fund to reduce assessments, is determined annually as part of NERC's open and transparent business plan and budget process. The amount of the contribution must be approved by NERC's Board, upon the recommendation of the Board's Finance and Audit Committee, as well as approved by FERC.

Management proposes an overall average assessment increase of 3.2%. This includes the release of \$1.4M in available penalty funds to offset U.S. assessments, with the remaining \$2.3M in available penalty funds held in the Assessment Stabilization Reserve. The allocation of assessments to Canadian entities will depend on the final determination and allocation of certain compliance and enforcement costs to Canadian entities pursuant to NERC's policy on the allocation of compliance costs.<sup>21</sup> Management updated and calculated these Canadian compliance and enforcement credits using the updated NERC budget information and the latest NEL data available. The current assessment allocation among the United States, Canada, and Mexico is \$51.8M, \$5.1M, and \$159.7k, respectively. Approximately \$36k of NERC's total assessment increase of over \$1.7M is allocated to Canada. Approximately \$9.6k of the increase is allocated to Mexico. The balance (approximately \$1.727M) is allocated to the U.S. This corresponds to an average percentage increase in assessments from 2015 of 3.5% for the United States, 0.7% for Canada, and 6.4% for Mexico, as set forth in the table below.

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<sup>19</sup> 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

<sup>20</sup> [NERC's Working Capital and Operating Reserve Policy](#). NERC filed a petition with FERC on March 6, 2015 for approval of this policy; the Commission conditionally approved the revised policy in an order issued June 18, 2015, in Docket No. RR15-8-000. *North American Electric Reliability Corporation, Order Conditionally Accepting Revisions to Working Capital and Operating Reserve Policy*, 151 FERC ¶ 61,225 (2015)

<sup>21</sup> Expanded Policy on allocation of Certain Compliance and Enforcement Costs, July 29, 2008.

REGION	CHANGE IN NERC ASSESSMENTS			
		US	Canada	Mexico
TOTAL				
	\$	\$	\$	\$
FRCC	111,121	111,121	-	-
MRO	85,228	52,538	32,690	-
NPCC	(18,030)	16,287	(34,317)	-
RF	347,317	347,317	-	-
SERC	564,304	564,304	-	-
SPP RE	245,076	245,076	-	-
TRE	212,367	212,367	-	-
WECC	225,686	178,459	37,620	9,607
<b>Total</b>	<b>1,773,070</b>	<b>1,727,470</b>	<b>35,993</b>	<b>9,607</b>
<b>% Change</b>	<b>3.2%</b>	<b>3.5%</b>	<b>0.7%</b>	<b>6.4%</b>

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

### Statement of Activities and Fixed Assets Expenditures 2015 and 2016 Budgets

#### STATUTORY

	2015 BUDGET	2015 PROJECTION	Variance Over (Under)	2016 BUDGET	2015 vs 2016 Budget Over (Under)	
					\$	%
<b>FUNDING</b>						
NERC Assessments	\$ 55,308,375	\$ 55,308,375	\$ -	\$ 57,081,445	\$ 1,773,070	<b>3.2%</b>
Penalties	1,155,000	1,155,000	-	1,439,000	284,000	
CRISP Funding	8,943,589	7,233,140	(1,710,449)	6,830,738	(2,112,851)	
Other Revenues / Fees	1,964,300	1,961,339	(2,961)	2,150,972	186,672	
<b>TOTAL FUNDING</b>	<b>\$ 67,371,264</b>	<b>\$ 65,657,854</b>	<b>\$ (1,713,410)</b>	<b>\$ 67,502,155</b>	<b>\$ 130,891</b>	<b>0.2%</b>
<b>EXPENSES</b>						
Personnel	35,803,312	35,758,363	(44,949)	37,283,807	1,480,495	
Meeting	3,566,146	3,662,334	96,188	3,620,286	54,140	
Operating	25,863,357	25,165,141	(698,216)	24,903,515	(959,843)	
Non-Operating	131,000	70,206	(60,794)	110,000	(21,000)	
<b>TOTAL EXPENSES (B)</b>	<b>\$ 65,363,815</b>	<b>\$ 64,656,044</b>	<b>\$ (707,771)</b>	<b>\$ 65,917,608</b>	<b>\$ 553,793</b>	<b>0.8%</b>
<b>FIXED ASSETS</b>						
Depreciation	\$ (2,333,006)	\$ (2,438,614)	(105,608)	\$ (2,641,943)	\$ (308,936)	
Computer, Software, Equip	3,618,500	4,243,500	625,000	3,911,000	292,500	
Leasehold Improvements	-	566,361	566,361	-	-	
<b>NET FIXED ASSETS (C)</b>	<b>1,285,494</b>	<b>2,385,857</b>	<b>1,100,364</b>	<b>1,269,057</b>	<b>(16,436)</b>	<b>-1.3%</b>
<b>TOTAL BUDGET (B + C)</b>	<b>\$ 66,649,309</b>	<b>\$ 67,041,901</b>	<b>\$ 392,592</b>	<b>\$ 67,186,665</b>	<b>\$ 537,357</b>	<b>0.8%</b>
<b>FTEs</b>	<b>192.30</b>	<b>192.03</b>	<b>(0.3)</b>	<b>192.47</b>	<b>0.2</b>	<b>0.1%</b>

NERC's 2016 budget and funding requirements reflect the resources necessary to support achievement of the goals and objectives set forth in the strategic plan. The 2016 budget is comprised of both operating and capital (fixed asset) costs. Operating costs include but are not limited to: personnel costs based on projected 2015 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 2016 budget include:

- Maintaining FTEs at a similar level as 2015. Management periodically reviews resource allocation to ensure that appropriate resources are being dedicated to key priorities and activities. As operations in some areas become more efficient and/or major initiatives are completed, resources are redeployed to priority areas. For example, as Reliability Standards moved closer to a steady state, it was possible to reallocate some of those resources to support additional compliance assurance, reliability risk assessment, and security needs without increasing the company's overall FTE budget.
- Applying a 7.8% reduction to FTEs (vacancy rate) to account for attrition and hiring delays. This assumption is based on a review and analysis of historic attrition and vacancy rates, as well as the time it takes to recruit and onboard new staff.
- Considering market-based compensation and salary increases. Executive and staff compensation and benefits are established based on guidelines established by NERC's Corporate Governance and Human Resources Committee and comprehensive market compensation and benefit information provided by a leading nationally recognized compensation and benefits consulting firm, as well as other available data. An updated market study will be undertaken in 2015 under the oversight of NERC's Corporate Governance and Human Resources Committee.
- Anticipating market increases in medical and dental benefit plan costs. Medical and dental premium cost estimates are based on market data provided by the company's benefits consultant. Due to the restructuring of the company's medical plan to a high-deductible health savings account structure, NERC has been able to hold premium increases down in recent years, but 2016 expectations are for a slightly higher premium increase.
- Including incremental retirement plan funding for the company's 457(f) plan, which was approved by the board in February 2015. No other changes to retirement or benefit plans have been assumed for 2016. This plan will be further reviewed as part of the independent compensation and benefit market review referenced above.  
Incorporating the findings of the strategic review of the ES-ISAC undertaken by the Electricity Subsector Coordinating Council (ESCC). As further explained in Section A – Electricity Sector Information Sharing and Analysis Center (ES-ISAC), the ESCC<sup>22</sup> presented its recommendations from this review in June 2015. These recommendations will be considered in connection with future determinations regarding ES-ISAC activities and resource requirements. For purposes of the initial draft of NERC's *2016 Business Plan and Budget*, total ES-ISAC and CRISP resource requirements were modeled consistent with 2015 budget levels. Pursuant to the terms of the contracts with CRISP participants, management has developed and finalized the 2016 CRISP budget and participant funding requirements. This budget has been communicated to the CRISP participants and is incorporated in this final draft.
- Forecasting meeting and travel expenses.

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<sup>22</sup> The Electricity Subsector Coordinating Council (ESCC) serves as the principal liaison between the federal government and the electric power sector, with the mission of coordinating efforts to prepare for, and respond to, national-level disasters or threats to critical infrastructure. The ESCC includes utility CEOs and trade association leaders representing all segments of the industry. Its counterparts include senior Administration officials from the White House, relevant Cabinet agencies, federal law enforcement, and national security organizations.

- Forecast is kept flat and is based on a review of 2014–2015 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.
- Accounting for contractors and consultants.
  - Contractor and consulting expenses are developed on a department-by-department basis and reflect both known and anticipated expenses, based on historic and current information.

The following table summarizes total year-over-year contractor and consulting costs by department.

Consultants & Contracts	2015 Budget	2016 Budget	Inc(Dec) v 2015
<b>Compliance Assurance</b>	388,000	200,000	(188,000)
<b>Reliability Risk Management</b>	0	56,000	56,000
<b>Compliance Investigation, Reg and Cert</b>	0	50,000	50,000
<b>Reliability Assessments and Performance Analysis</b>	955,450	1,084,039	128,589
<b>Situation Awareness</b>	1,077,321	1,211,475	134,154
<b>ES-ISAC</b>	8,756,190	6,551,929	(2,204,261)
<b>Training, Education and Operator Certification</b>	752,130	675,800	(76,330)
<b>General &amp; Administrative</b>	15,000	95,000	80,000
<b>Information Technology</b>	1,729,600	2,094,671	365,071
<b>Human Resources</b>	298,275	550,000	251,725
<b>Finance and Accounting</b>	339,500	297,000	(42,500)
<b>TOTAL CONSULTANTS AND CONTRACTS</b>	<b>14,311,466</b>	<b>12,865,914</b>	<b>(1,445,553)</b>

The Compliance Assurance department will require ongoing consulting support for implementation of compliance assurance reform initiatives. Contract and consulting expenses for the Reliability Assessment and Performance Analysis program area are largely for software and services supporting reliability data management and analysis. Situation Awareness costs are primarily related to licenses and services supporting Situation Awareness for FERC, NERC, and the Regional Entities (SAFNR), and other reliability information and notification (e.g., alerts) systems.

As further described in Section A, the Critical Infrastructure Department (CID) was consolidated with the ES-ISAC. CID consulting costs for 2015 included support for GridEx, which is conducted every other year and is not planned for 2016, and outside consulting support for the Critical Infrastructure Protection Committee, which will be supported by internal resources in 2016. Approximately \$5.9M of the total ES-ISAC contract and consulting costs are CRISP related and funded by CRISP participants. Other ES-ISAC contract and consulting costs include software maintenance, reporting services, and analysis support costs consistent with the 2015 budget.

Training, Education, and Operator Certification contract and consulting costs include the cost of operator certification, training, and continuing education programs, and training NERC personnel. It also includes supporting compliance and enforcement (risk-based CMEP) and other training initiatives.

Information Technology (IT) contract and consulting support is primarily for systems and software maintenance and support services, including costs for enhancements to and maintenance of enterprise applications. Costs associated with IT security programs and the ongoing implementation and support of a document management program are also included. 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 the Enterprise Risk Management and Internal Control audit plan and Compliance and Certification Committee (CCC) audit plan.

### Fixed Asset (Capital) Budget and Capital Financing

NERC's 2016 capital budget is approximately \$3.9M (excluding depreciation), which represents an increase of approximately \$293k from 2015. The table below provides a summary of the major capital budget components.

NERC Capital Budget			
	2015 Budget	2016 Budget	Inc(Dec) v 2015
ERO Application Development	\$ 1,050,000	\$ 1,500,000	\$ 450,000
Document Management	-	465,000	465,000
ERO Data Analysis Tool	550,000	-	(550,000)
Geration Data Software	200,000	-	(200,000)
Other IT Hardware and Software	1,453,500	1,411,000	(42,500)
Network Devices and A/V	365,000	535,000	170,000
<b>Total Capital Budget</b>	<b>\$ 3,618,500</b>	<b>\$ 3,911,000</b>	<b>\$ 292,500</b>
Depreciation (excluded from Assessments)	(2,333,006)	(2,641,943)	(308,937)
<b>Fixed Assets (net)</b>	<b>\$ 1,285,494</b>	<b>\$ 1,269,057</b>	<b>\$ (16,437)</b>

NERC has budgeted 2.7M<sup>23</sup> in 2016 for services related to the planning, design, and implementation of software applications supporting common NERC and Regional Entity operations. These ERO-related costs include \$1.5M in capital expenditures and \$1.2M in other IT operating costs. Senior management of NERC and the Regional Entities has refined and updated the ERO Enterprise's long-term IT architecture and data

<sup>23</sup> Depending on the nature of the expenditures, they may or may not be 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-related expenditures.



management plans and the specific applications that will be under development in 2016. The Information Technology department section offers further detail regarding updates to the Enterprise IT Strategy; the current status of the development of Enterprise IT applications; projects that will be under development in 2016; and steps that are being taken to improve NERC's oversight of the identification, development, and execution of Enterprise IT applications. The proposed \$2.7M budget for 2016 related to enterprise application development and support is comparable to the 2016 projection presented in NERC's *2015 Business Plan and Budget*. Further information regarding the ERO Enterprise application development budget is contained in Section A – Information Technology department. NERC's 2016 capital budget also includes ongoing funding for IT security, disaster recovery, data storage, replacement of servers and laptops, and software license costs.

The 2016 budget projection assumes that \$1.5M of the total \$3.9M capital budget will be financed as part of the capital financing program that was described and put in place as part of NERC's *2014 Business Plan and Budget*. Further information regarding capital financing may be found in Exhibit D.

### **Working Capital and Operating Reserves**

Management is proposing an overall reserve budget of \$8.8M for the combined four categories of operating reserves and the Assessment Stabilization Reserve under the company's amended Working Capital and Operating Reserve Policy. Based upon the company's projected cash flow needs, additional working capital reserves are not anticipated to be required. Pursuant to the company's amended Working Capital and Operating Reserve policy, funds reserved for future liabilities are now budgeted under a separate reserve category entitled Future Obligation Reserve. This reserve is primarily comprised of existing funds and is budgeted to be \$3.2M for 2016. The second category of operating reserves is the System Operating Certification Reserve. The 2016 System Operator Certification Reserve is budgeted at \$390k. It uses available funds (i.e., is not funded through assessments). The third category of operating reserves is the CRISP Operating Reserve, which represents funds dedicated to support CRISP. Similar to 2015, these reserves are established pursuant to a CRISP budget agreed to with and funded entirely by utilities participating in CRISP. They have no impact on assessments, and they are segregated from other reserves pursuant to the terms of the CRISP agreements. Currently, the CRISP reserves are projected to be \$516k in the 2016 budget.

The fourth category of Operating Reserves is the Operating Contingency Reserve. This reserve includes funds for expenditures that were not anticipated at the time the company's budget was prepared or for which the timing was uncertain. NERC's current policy on Operating Contingency Reserves (approved by the Board in February 2015) requires a reserve target of 3.5–7.0%. This percentage is calculated against NERC's total budget for operating and capital expenditures, less those costs related to CRISP and System Operator Certification (both having separate reserve categories). For this draft of the 2016 budget, the Operating Contingency Reserve is targeted for \$2.5M, or 3.7% of operating and capital costs, excluding CRISP and System Operator costs.

In addition to the four categories of operating reserves and as previously discussed, the company's amended Working Capital and Operating Reserve Policy also provides for the establishment of an Assessment Stabilization Reserve. Penalty funds available for use in 2016 total \$3.7M. For purposes of the initial draft of the company's *2016 Business Plan and Budget*, management proposes the release of \$1.4M in penalty funds to offset assessments, with the remaining \$2.3M of available funds held in the Assessment Stabilization Reserve. The use of \$1.4M to offset assessments in 2016 yields an average increase of 3.2% over the 2015 assessments. Penalty funds received after June 30, 2015, will be restricted and applied in accordance with the company's approved *2017 Business Plan and Budget*. The \$2.3M in penalty funds contributed to the Assessment Stabilization Reserve will be held in that reserve and applied as determined in connection with the company's approved *2017 Business Plan and Budget*, after

customary review and input from stakeholders as part of the *2017 Business Plan and Budget* approval process. Further information regarding working capital and operating reserves may be found in Exhibit E.

### Department Budget and FTE Comparisons

The following tables set forth a 2015–2016 total budget comparison by department. The amounts shown below reflect all direct and indirect departmental costs, including fixed asset costs. Costs incurred for general and administrative and other overheads are considered indirect, and are allocated to the statutory departments based on the ratio of that department’s budgeted FTEs to total budgeted FTEs.

#### 2015–2016 Total Budget by Department

Total Budget	Budget 2015	Budget 2016	Change	
			2016 Budget v 2015 Budget	% Change
Reliability Standards	10,247,145	8,193,116	(2,054,029)	-20.0%
Compliance Analysis, Certificaton and Registration	4,864,863	4,632,871	(231,993)	-4.8%
Compliance Assurance	5,737,572	9,420,903	3,683,332	64.2%
Compliance Enforcement	5,806,866	5,293,298	(513,568)	-8.8%
Reliability Assessments and Performance Analysis	9,825,750	9,918,728	92,979	0.9%
Training, Education and Operator Certification	3,950,926	3,912,231	(38,695)	-1.0%
Reliability Risk Management				
Event Analysis	4,203,169	5,355,795	1,152,626	27.4%
Situation Awareness	3,646,902	3,692,197	45,295	1.2%
ES-ISAC (including CRISP)	18,366,117	16,767,525	(1,598,592)	-8.7%
<b>Total Budget</b>	<b>66,649,309</b>	<b>67,186,665</b>	<b>537,357</b>	<b>0.8%</b>

The increase in Compliance Assurance department costs is primarily due to the transfer of resources to this department as part of the internal reorganization to better align auditor resources and support ongoing compliance assurance initiatives. The increase in the Event Analysis department budget is due to reallocation of resources to that department to further support increased reliability risk assessment and analysis resource priorities.

The following table presents a year-over-year comparison of FTEs by department and reflects 2015 personnel additions, interdepartmental transfers, and attrition assumptions. An FTE represents the number of employees employed full time during the year, plus the number of employees employed part time (less than full schedule) or during a portion of the year converted to a full-time basis. Headcount represents the total number of personnel employed during the year, regardless of the length of their employment during that year. FTEs will be less than headcount, unless there are no part-time employees or employees who are employed less than a full year. The company’s 2016 personnel budget is based upon existing headcount and associated compensation and benefit costs, as well as assumptions on the number and cost of new hires, all within an overall FTE budget. An average vacancy rate is applied to each position and its associated costs to arrive at an overall personnel cost budget. The vacancy rate represents an adjustment, which is applied in the calculation of budgeted personnel costs to account for attrition and variations in the budget assumptions on the timing of new hires.



## 2015–2016 Year-Over-Year Comparison of FTEs by Department

Total FTE's by Program Area	Budget 2015	Budget 2016	Change from 2015 Budget	% Change from 2015
<b>STATUTORY</b>				
<b>Operational Programs</b>				
Reliability Standards	24.40	17.98	(6.4)	-26.3%
Compliance Analysis, Certification and Registration	11.25	10.14	(1.1)	-9.9%
Compliance Assurance	12.19	19.36	7.2	58.8%
Compliance Enforcement	15.01	12.22	(2.8)	-18.6%
Reliability Assessments and Performance Analysis	19.70	18.67	(1.0)	-5.2%
Training, Education and Operator Certification	7.97	7.38	(0.6)	-7.5%
Event Analysis	9.38	11.06	1.7	18.0%
Situation Awareness	6.10	5.53	(0.6)	-9.3%
ES-ISAC (with CRISP)	18.76	18.90	0.1	0.7%
<b>Total FTEs Operational Programs</b>	<b>124.76</b>	<b>121.24</b>	<b>(3.5)</b>	<b>-2.8%</b>
<b>Administrative Programs</b>				
General & Administrative	13.13	17.52	4.4	33.4%
Legal and Regulatory	15.01	12.22	(2.8)	-18.6%
Information Technology	19.70	22.13	2.4	12.3%
Human Resources	2.81	2.77	(0.0)	-1.4%
Finance and Accounting	16.89	16.60	(0.3)	-1.7%
<b>Total FTEs Administrative Programs</b>	<b>67.54</b>	<b>71.23</b>	<b>3.7</b>	<b>5.5%</b>
<b>Total FTEs</b>	<b>192.30</b>	<b>192.47</b>	<b>0.2</b>	<b>0.1%</b>

The increase in General and Administrative FTEs in the table below is due to reallocation of personnel to support NERC's Chief Reliability Officer, who has oversight over multiple operating departments, as well as personnel providing day-to-day operating and administrative support for the ERO Executive Management Group. The increase in Information Technology FTEs is due to the reallocation of personnel to strengthen project management oversight over NERC and ERO Enterprise software application development and implementation.

The NERC 2016 organizational chart can be found in Appendix 1. The difference between the number of positions reflected in the 2016 organizational chart and total 2016 budgeted FTEs is due to assumptions regarding vacancy rates and timing of new hires.

The following pages include a statement of activities comparing the 2015 budget and the proposed 2016 budget, followed by a statement of activities comparing the 2015 budget and the proposed 2016 budget with and without CRISP.

Introduction and Executive Summary

Statement of Activities and Fixed Assets Expenditures 2015 and 2016 Budgets

STATUTORY								
	2015	2015	Variance 2015	2016	Variance	% Inc 2016	2016 Budget	Variance to
	Budget	Projection	2015 Budget	Budget	v 2015 Budget	over 2015	Draft 1	Prior Draft
			Over(Under)		Over(Under)			Over(Under)
<b>Funding</b>								
<b>ERO Funding</b>								
NERC Assessments	\$ 55,308,375	\$ 55,308,375	\$ -	\$ 57,081,445	\$ 1,773,070	3.2%	\$ 57,216,402	\$ (134,957)
Penalty Sanctions <sup>1</sup>	1,155,000	1,155,000	-	1,439,000	284,000		839,000	600,000
<b>Total ERO (Assessment) Funding</b>	<b>\$ 56,463,375</b>	<b>\$ 56,463,375</b>	<b>\$ -</b>	<b>\$ 58,520,445</b>	<b>\$ 2,057,070</b>		<b>\$ 58,055,402</b>	<b>\$ 465,043</b>
Third-Party Funding (CRISP)	8,943,589	7,233,140	(1,710,449)	6,830,738	(2,112,851)		8,365,389	(1,534,651)
Testing Fees	1,670,000	1,670,000	-	1,867,972	197,972		1,867,972	-
Services & Software	50,000	50,000	-	50,000	-		50,000	-
Workshops	241,300	237,025	(4,275)	230,000	(11,300)		230,000	-
Interest	3,000	4,158	1,158	3,000	-		3,000	-
Miscellaneous	-	156	156	-	-		-	-
<b>Total Funding (A)</b>	<b>\$ 67,371,264</b>	<b>\$ 65,657,854</b>	<b>\$ (1,713,410)</b>	<b>\$ 67,502,155</b>	<b>\$ 130,891</b>	<b>0.2%</b>	<b>\$ 68,571,764</b>	<b>\$ (1,069,609)</b>
<b>Expenses</b>								
<b>Personnel Expenses</b>								
Salaries	\$ 27,580,677	\$ 27,807,341	\$ 226,664	\$ 28,842,336	\$ 1,261,660		\$ 28,675,229	167,107
Payroll Taxes	1,673,628	1,826,683	153,055	1,871,367	197,739		1,863,684	7,683
Benefits	3,547,178	3,381,238	(165,940)	3,579,280	32,103		3,580,519	(1,239)
Retirement Costs	3,001,829	2,743,101	(258,728)	2,990,823	(11,006)		2,998,184	(7,361)
<b>Total Personnel Expenses</b>	<b>\$ 35,803,312</b>	<b>\$ 35,758,363</b>	<b>\$ (44,949)</b>	<b>\$ 37,283,807</b>	<b>\$ 1,480,495</b>	<b>4.1%</b>	<b>\$ 37,117,617</b>	<b>166,190</b>
<b>Meeting Expenses</b>								
Meetings	\$ 1,050,000	\$ 1,108,004	\$ 58,004	\$ 1,096,500	\$ 46,500		\$ 1,081,500	15,000
Travel	2,203,395	2,196,388	(7,007)	2,203,786	391		2,203,392	394
Conference Calls	312,751	357,942	45,191	320,000	7,249		320,000	-
<b>Total Meeting Expenses</b>	<b>\$ 3,566,146</b>	<b>\$ 3,662,334</b>	<b>\$ 96,188</b>	<b>\$ 3,620,286</b>	<b>\$ 54,140</b>	<b>1.5%</b>	<b>\$ 3,604,892</b>	<b>15,394</b>
<b>Operating Expenses</b>								
Consultants & Contracts	\$ 14,311,466	\$ 13,975,464	\$ (336,002)	\$ 12,865,914	\$ (1,445,552)		\$ 14,759,175	(1,893,261)
Office Rent	2,987,777	2,987,777	-	3,054,287	66,510		3,054,287	-
Office Costs	3,583,328	3,575,494	(7,834)	3,795,572	212,243		3,795,317	255
Professional Services	2,611,280	2,150,792	(460,488)	2,509,300	(101,980)		2,509,300	-
Miscellaneous	36,500	37,000	500	36,500	-		36,500	-
Depreciation	2,333,006	2,438,614	105,608	2,641,943	308,936		2,641,943	-
<b>Total Operating Expenses</b>	<b>\$ 25,863,357</b>	<b>\$ 25,165,141</b>	<b>\$ (698,216)</b>	<b>\$ 24,903,515</b>	<b>\$ (959,843)</b>	<b>-3.7%</b>	<b>\$ 26,796,521</b>	<b>\$ (1,893,006)</b>
<b>Total Direct Expenses</b>	<b>\$ 65,232,815</b>	<b>\$ 64,585,838</b>	<b>\$ (646,977)</b>	<b>\$ 65,807,608</b>	<b>\$ 574,793</b>	<b>0.9%</b>	<b>\$ 67,519,030</b>	<b>\$ (1,711,422)</b>
<b>Indirect Expenses</b>								
		\$ -	\$ -	\$ (0)	\$ (0)		\$ -	\$ (0)
<b>Other Non-Operating Expenses</b>	<b>\$ 131,000</b>	<b>\$ 70,206</b>	<b>\$ (60,794)</b>	<b>\$ 110,000</b>	<b>\$ (21,000)</b>	<b>-16.0%</b>	<b>\$ 110,000</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 65,363,815</b>	<b>\$ 64,656,044</b>	<b>\$ (707,771)</b>	<b>\$ 65,917,608</b>	<b>\$ 553,793</b>	<b>0.8%</b>	<b>\$ 67,629,030</b>	<b>\$ (1,711,422)</b>
<b>Change in Assets</b>	<b>\$ 2,007,449</b>	<b>\$ 1,001,811</b>	<b>\$ (1,005,638)</b>	<b>\$ 1,584,548</b>	<b>\$ (422,901)</b>		<b>\$ 942,734</b>	<b>641,813</b>
<b>Fixed Assets</b>								
Depreciation	\$ (2,333,006)	\$ (2,438,614)	(105,608)	\$ (2,641,943)	\$ (308,936)		\$ (2,641,943)	\$ -
Computer & Software CapEx	3,253,500	3,683,757	430,257	2,447,000	(806,500)		3,276,000	(829,000)
Furniture & Fixtures CapEx	-	14,611	14,611	-	-		-	-
Equipment CapEx	365,000	559,743	194,743	1,464,000	1,099,000		535,000	929,000
Leasehold Improvements	-	566,361	566,361	-	-		-	-
Allocation of Fixed Assets	\$ -	\$ 0	\$ 0	\$ (0)	\$ (0)		\$ (0)	\$ -
<b>Inc(Dec) in Fixed Assets ( C )</b>	<b>1,285,494</b>	<b>2,385,857</b>	<b>1,100,364</b>	<b>1,269,057</b>	<b>(16,436)</b>	<b>-1.3%</b>	<b>1,169,057</b>	<b>100,000</b>
<b>TOTAL BUDGET (=B + C)</b>	<b>\$ 66,649,309</b>	<b>\$ 67,041,901</b>	<b>\$ 392,592</b>	<b>\$ 67,186,665</b>	<b>\$ 537,357</b>	<b>0.8%</b>	<b>\$ 68,798,087</b>	<b>\$ (1,611,422)</b>
<b>FTEs</b>	<b>192.3</b>	<b>192.0</b>	<b>(0.3)</b>	<b>192.5</b>	<b>0.18</b>	<b>0.1%</b>	<b>192.5</b>	<b>(0.01)</b>

Introduction and Executive Summary

Statement of Activities and Fixed Assets Expenditures 2015 and 2016 Budgets

TOTAL STATUTORY

	2015	2015	2015 Budget	2016	2016 Budget	Variance 2016 Budget		% Inc 2016
	Budget	2015 CRISP	w/o CRISP	Budget	2016 CRISP	w/o CRISP	v 2015 Budget w/o CRISP Over(Under)	
<b>Funding</b>								
<b>ERO Funding</b>								
NERC Assessments	\$ 55,308,375	\$ 860,938	\$ 54,447,437	\$ 57,081,445	\$ 1,108,641	\$ 55,972,805	\$ 1,525,367	2.8%
Penalty Sanctions <sup>1</sup>	1,155,000	16,554	1,138,446	1,439,000	33,572	1,405,428	266,982	
<b>Total ERO (Assessment) Funding</b>	<b>\$ 56,463,375</b>	<b>\$ 877,492</b>	<b>\$ 55,585,883</b>	<b>\$ 58,520,445</b>	<b>\$ 1,142,213</b>	<b>\$ 57,378,232</b>	<b>\$ 1,792,349</b>	
Third-Party Funding (CRISP)	8,943,589	8,943,589	-	6,830,738	6,830,738	-	-	
Testing Fees	1,670,000	-	1,670,000	1,867,972	-	1,867,972	197,972	
Services & Software	50,000	-	50,000	50,000	-	50,000	-	
Workshops	241,300	-	241,300	230,000	-	230,000	(11,300)	
Interest	3,000	42	2,958	3,000	68	2,932	(26)	
Miscellaneous	-	-	-	-	-	-	-	
<b>Total Funding (A)</b>	<b>\$ 67,371,264</b>	<b>\$ 9,821,123</b>	<b>\$ 57,550,141</b>	<b>\$ 67,502,155</b>	<b>\$ 7,973,019</b>	<b>\$ 59,529,136</b>	<b>\$ 1,978,995</b>	<b>3.4%</b>
<b>Expenses</b>								
<b>Personnel Expenses</b>								
Salaries	\$ 27,580,677	\$ 363,357	\$ 27,217,320	\$ 28,842,336	\$ 592,724	\$ 28,249,612	\$ 1,032,292	
Payroll Taxes	1,673,628	20,990	1,652,638	1,871,367	32,899	1,838,469	185,831	
Benefits	3,547,178	33,953	3,513,225	3,579,280	50,247	3,529,034	15,809	
Retirement Costs	3,001,829	40,951	2,960,878	2,990,823	65,802	2,925,021	(35,857)	
<b>Total Personnel Expenses</b>	<b>\$ 35,803,312</b>	<b>\$ 459,251</b>	<b>\$ 35,344,061</b>	<b>\$ 37,283,807</b>	<b>\$ 741,671</b>	<b>\$ 36,542,135</b>	<b>\$ 1,198,074</b>	<b>3.4%</b>
<b>Meeting Expenses</b>								
Meetings	\$ 1,050,000	\$ 15,000	\$ 1,035,000	\$ 1,096,500	30,000	1,066,500	\$ 31,500	
Travel	2,203,395	30,000	2,173,395	2,203,786	37,455	2,166,331	(7,064)	
Conference Calls	312,751	5,000	307,751	320,000	2,000	318,000	10,249	
<b>Total Meeting Expenses</b>	<b>\$ 3,566,146</b>	<b>\$ 50,000</b>	<b>\$ 3,516,146</b>	<b>\$ 3,620,286</b>	<b>\$ 69,455</b>	<b>\$ 3,550,831</b>	<b>\$ 34,685</b>	<b>1.0%</b>
<b>Operating Expenses</b>								
Consultants & Contracts	\$ 14,311,466	\$ 7,666,055	\$ 6,645,410.8	\$ 12,865,914	5,888,594	6,977,320	\$ 331,909	
Office Rent	2,987,777	-	2,987,777	3,054,287	-	3,054,287	66,510	
Office Costs	3,583,328	305,000	3,278,328	3,795,572	304,027	3,491,545	213,217	
Professional Services	2,611,280	350,000	2,261,280	2,509,300	175,000	2,334,300	73,020	
Miscellaneous	36,500	-	36,500	36,500	250	36,250	(250)	
Depreciation	2,333,006	-	2,333,006	2,641,943	-	2,641,943	308,936	
<b>Total Operating Expenses</b>	<b>\$ 25,863,357</b>	<b>\$ 8,321,055</b>	<b>\$ 17,542,302</b>	<b>\$ 24,903,515</b>	<b>\$ 6,367,871</b>	<b>\$ 18,535,644</b>	<b>\$ 993,342</b>	<b>5.7%</b>
<b>Total Direct Expenses</b>	<b>\$ 65,232,815</b>	<b>\$ 8,830,306</b>	<b>\$ 56,402,509</b>	<b>\$ 65,807,608</b>	<b>\$ 7,178,997</b>	<b>\$ 58,628,611</b>	<b>\$ 2,226,101</b>	<b>3.9%</b>
<b>Indirect Expenses</b>		<b>\$ 368,803</b>	<b>\$ (368,803)</b>	<b>\$ (0)</b>	<b>\$ 650,917</b>	<b>\$ (650,917)</b>	<b>\$ (282,114)</b>	
<b>Other Non-Operating Expenses</b>	<b>\$ 131,000</b>	<b>\$ -</b>	<b>\$ 131,000</b>	<b>\$ 110,000</b>	<b>-</b>	<b>110,000</b>	<b>\$ (21,000)</b>	
<b>Total Expenses (B)</b>	<b>\$ 65,363,815</b>	<b>\$ 9,199,108</b>	<b>\$ 56,164,707</b>	<b>\$ 65,917,608</b>	<b>\$ 7,829,914</b>	<b>\$ 58,087,694</b>	<b>\$ 1,922,987</b>	<b>3.4%</b>
<b>Change in Assets</b>	<b>\$ 2,007,449</b>	<b>\$ 622,014</b>	<b>\$ 1,385,435</b>	<b>\$ 1,584,548</b>	<b>\$ 143,105</b>	<b>\$ 1,441,442</b>	<b>\$ 56,008</b>	
<b>Fixed Assets</b>								
Depreciation	\$ (2,333,006)	\$ -	(2,333,006)	\$ (2,641,943)	\$ -	\$ (2,641,943)	\$ (308,936)	
Computer & Software CapEx	3,253,500	100,000	3,153,500	2,447,000	100,000	2,347,000	(806,500)	
Furniture & Fixtures CapEx	-	-	-	-	-	-	-	
Equipment CapEx	365,000	-	365,000	1,464,000	-	1,464,000	1,099,000	
Leasehold Improvements	-	-	-	-	-	-	-	
Allocation of Fixed Assets	-	22,014	(22,014)	(0)	43,105	(43,105)	(21,091)	
<b>Inc(Dec) in Fixed Assets ( C )</b>	<b>1,285,494</b>	<b>122,014</b>	<b>1,163,479</b>	<b>1,269,057</b>	<b>143,105</b>	<b>1,125,952</b>	<b>(37,527)</b>	
<b>TOTAL BUDGET (=B + C)</b>	<b>\$ 66,649,309</b>	<b>\$ 9,321,123</b>	<b>\$ 57,328,186</b>	<b>\$ 67,186,665</b>	<b>\$ 7,973,019</b>	<b>\$ 59,213,646</b>	<b>\$ 1,885,460</b>	<b>3.3%</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)<sup>2</sup></b>	<b>\$ 721,955</b>	<b>\$ 500,000</b>	<b>\$ 221,955</b>	<b>\$ 315,490</b>	<b>\$ -</b>	<b>\$ 315,490</b>	<b>\$ 93,535</b>	
<b>FTEs</b>	<b>192.30</b>	<b>1.88</b>	<b>190.42</b>	<b>192.47</b>	<b>2.76</b>	<b>189.71</b>	<b>(0.71)</b>	<b>-0.4%</b>

## Projections for 2017–2018

Management has developed preliminary operating and fixed asset (capital) projections for 2017 and 2018. The significant assumptions considered in preparing these projections include:

- No increase in the total FTEs over 2016 budgeted FTEs
- Personnel and benefit cost increases consistent with the 2016 budget assumptions
- 2017 increase and 2018 decrease in contractor and consulting expense related to the Grid Security Exercise, which occurs every other year
- 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

Projected costs for 2017 are \$4.2M, or 6.2% over the current 2016 budget (total operating and fixed asset expenditures). The 2018 projected costs decrease \$585k, or 0.8%, from the 2017 projection. Average 2017 assessments are projected to increase \$3.6M, or 6.3%, over 2016. Average 2018 assessments are projected to decrease slightly by \$122k or 0.2%. No assumptions have been made regarding the release of funds from the Assessment Stabilization Reserve to reduce U.S. assessments, including that portion of the 2017 projected assessment increase resulting from the loss of the one-time application of penalty offsets in 2016.

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Statement of Activities and Fixed Assets Expenditures  
2016 Budget & Projected 2017 and 2018 Budgets

	2016 Budget	2017 Projection	\$ Change 17 v 16	% Change 17 v 16	2018 Projection	\$ Change 18 v 17	% Change 18 v 17
<b>Funding</b>							
<b>ERO Funding</b>							
NERC Assessments	\$ 57,081,445	\$ 60,659,599	\$ 3,578,154	6.27%	\$ 60,537,108	\$ (122,491)	-0.2%
Penalty Sanctions	1,439,000	-	(1,439,000)	-100.00%	-	-	-
<b>Total NERC Funding</b>	<b>\$ 58,520,445</b>	<b>\$ 60,659,599</b>	<b>\$ 2,139,154</b>	<b>3.7%</b>	<b>\$ 60,537,108</b>	<b>\$ (122,491)</b>	<b>-0.2%</b>
Third-Party Funding (CRISP)	6,830,738	8,488,833	1,658,095	24.27%	8,488,833	-	0.0%
Testing Fees	1,867,972	1,867,972	-	0.00%	1,867,972	-	0.0%
Services & Software	50,000	50,000	-	0.00%	50,000	-	0.0%
Workshops	230,000	230,000	-	0.00%	300,000	70,000	30.4%
Interest	3,000	3,554	554	18.47%	3,000	(554)	-15.6%
Miscellaneous	-	-	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 67,502,155</b>	<b>\$ 71,299,959</b>	<b>\$ 3,797,803</b>	<b>5.6%</b>	<b>\$ 71,246,913</b>	<b>\$ (53,045)</b>	<b>-0.1%</b>
<b>Expenses</b>							
<b>Personnel Expenses</b>							
Salaries	\$ 28,842,336	\$ 29,726,738	\$ 884,401	3.1%	\$ 30,603,240	\$ 876,502	2.9%
Payroll Taxes	1,871,367	1,910,077	38,710	2.1%	1,939,976	29,899	1.6%
Benefits	3,579,280	4,006,605	427,324	11.9%	4,312,722	306,118	7.6%
Retirement Costs	2,990,823	3,104,437	113,614	3.8%	3,202,370	97,933	3.2%
<b>Total Personnel Expenses</b>	<b>\$ 37,283,807</b>	<b>\$ 38,747,856</b>	<b>\$ 1,464,049</b>	<b>3.9%</b>	<b>\$ 40,058,308</b>	<b>\$ 1,310,452</b>	<b>3.4%</b>
<b>Meeting Expenses</b>							
Meetings	\$ 1,096,500	\$ 1,096,500	\$ -	0.0%	\$ 1,096,500	\$ -	0.0%
Travel	2,203,786	2,203,786	-	0.0%	2,203,786	-	0.0%
Conference Calls	320,000	320,000	-	0.0%	320,000	-	0.0%
<b>Total Meeting Expenses</b>	<b>\$ 3,620,286</b>	<b>\$ 3,620,286</b>	<b>\$ -</b>	<b>0.0%</b>	<b>\$ 3,620,286</b>	<b>\$ -</b>	<b>0.0%</b>
<b>Operating Expenses</b>							
Consultants & Contracts	\$ 12,865,914	15,009,682	2,143,769	16.7%	14,839,593	(170,089)	-1.1%
Office Rent	3,054,287	2,961,341	(92,946)	-3.0%	2,942,752	(18,589)	-0.6%
Office Costs	3,795,572	3,795,572	-	0.0%	3,795,572	-	0.0%
Professional Services	2,509,300	2,515,135	5,835	0.2%	2,419,909	(95,226)	-3.8%
Miscellaneous	36,500	36,500	-	0.0%	36,500	-	0.0%
Depreciation	2,641,943	2,103,670	(538,273)	-20.4%	1,621,321	(482,348)	-22.9%
<b>Total Operating Expenses</b>	<b>\$ 24,903,515</b>	<b>\$ 26,421,899</b>	<b>\$ 1,518,385</b>	<b>6.1%</b>	<b>\$ 25,655,647</b>	<b>\$ (766,252)</b>	<b>-2.9%</b>
<b>Total Direct Expenses</b>	<b>\$ 65,807,608</b>	<b>\$ 68,790,042</b>	<b>\$ 2,982,434</b>	<b>4.5%</b>	<b>\$ 69,334,241</b>	<b>\$ 544,199</b>	<b>0.8%</b>
<b>Indirect Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>
<b>Other Non-Operating Expenses</b>	<b>\$ 110,000</b>	<b>\$ 122,100</b>	<b>\$ 12,100</b>	<b>11.0%</b>	<b>140,250</b>	<b>18,150</b>	<b>14.9%</b>
<b>Total Expenses (B)</b>	<b>\$ 65,917,608</b>	<b>\$ 68,912,142</b>	<b>\$ 2,994,534</b>	<b>4.5%</b>	<b>\$ 69,474,491</b>	<b>562,349</b>	<b>0.8%</b>
<b>Change in Assets</b>	<b>\$ 1,584,548</b>	<b>\$ 2,387,817</b>	<b>\$ 803,269</b>	<b>50.7%</b>	<b>\$ 1,772,422</b>	<b>\$ (615,395)</b>	<b>-25.8%</b>
<b>Fixed Assets</b>							
Depreciation	\$ (2,641,943)	\$ (2,103,670)	\$ 538,273	-20.4%	\$ (1,621,321)	\$ 482,348	-22.9%
Computer & Software CapEx	2,447,000	3,822,000	1,375,000	56.2%	2,677,000	(1,145,000)	-30.0%
Furniture & Fixtures CapEx	-	-	-	-	-	-	-
Equipment CapEx	1,464,000	715,000	(749,000)	-51.2%	230,000	(485,000)	-67.8%
Leasehold Improvements	-	-	-	-	-	-	-
Allocation of Fixed Assets	-	-	-	-	-	-	-
<b>Inc(Dec) in Fixed Assets (C)</b>	<b>\$ 1,269,057</b>	<b>\$ 2,433,330</b>	<b>\$ 1,164,273</b>	<b>91.7%</b>	<b>\$ 1,285,679</b>	<b>\$ (1,147,652)</b>	<b>-47.2%</b>
<b>TOTAL BUDGET (=B + C)</b>	<b>\$ 67,186,665</b>	<b>\$ 71,345,472</b>	<b>\$ 4,158,807</b>	<b>6.2%</b>	<b>\$ 70,760,170</b>	<b>\$ (585,302)</b>	<b>-0.8%</b>
<b>FTEs</b>	<b>192.47</b>	<b>192.47</b>	<b>-</b>	<b>-</b>	<b>192.47</b>	<b>-</b>	<b>-</b>

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

### Reliability Standards

Reliability Standards Program (in whole dollars)					
	2015 Budget	2016 Budget	Increase (Decrease)	2015 Budget - Prior Draft	Variance to Prior Draft Over(Under)
Total FTEs	24.40	17.98	(6.42)	17.979	-
Direct Expenses	\$ 4,800,751	\$ 3,888,768	\$ (911,983)	\$ 3,972,198	\$ (83,430)
Indirect Expenses	\$ 5,139,603	\$ 4,234,020	\$ (905,583)	\$ 4,281,116	\$ (47,096)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 306,791	\$ 70,328	\$ (236,463)	\$ 72,997	\$ (2,669)
TOTAL BUDGET	\$ 10,247,145	\$ 8,193,116	\$ (2,054,030)	\$ 8,326,310	\$ (133,194)

### 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 standard 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 is 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 Reliability 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 created by the standard drafting teams. The department also supports the filing of standards with regulatory authorities and provides support with regulatory proceedings.

The Reliability Standards program provides a mechanism for the eight Regional Entities to process regional standards when unique regional reliability gaps are detected, or incorporate Regional variances into continent-wide standards. 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.

### Key Efforts Underway

Efforts will be undertaken to ensure that the Reliability Standards Development Plan is effectively executed and that NERC's Reliability Standards are focused on and mitigate significant risks to BES 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 by early 2016. 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 (also 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, 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 work by addressing possible outstanding Paragraph 81 Phase 2 requirement candidates and Independent Experts Review Project (IERP) recommendations for retirement, and conducting concurrent development of compliance guidance with Reliability Standards.
4. **Determine whether to make further improvements to the standards.** In 2015, as the Reliability Standards approach steady state, industry, NERC, and FERC will determine whether there is a need to make further improvements to the standards. If desired, the 2016–2018 Reliability Standards Development Plan will outline future reviews that include: (1) a measured review of the content of standards, considering whether the requirements could more effectively mitigate risks to the BPS; (2) whether the standards are results based and drafted with high quality; (3) whether the standards are concise or if the number of requirements could be reduced; and (4) whether compliance expectations are clear.
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 2016–2018 RSDP will be developed during the first half of 2015 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, resolution of FERC directives, and next steps in the periodic review of standards.

## 2016 Goals and Deliverables

In early 2016, the transformation of the Reliability Standards to steady state will be complete.<sup>24</sup> Specifically, the majority of FERC directives will be addressed, as well as the remaining recommendations for retiring requirements made by the Paragraph 81 project and the independent experts. The body of standards will be improved while considering quality and content criteria as well as results-based standards principles. The NERC Standards staff will continue to address any new directives issued by FERC as well as any reliability risks identified through RRMP or by the RISC for which a Reliability Standard is part of the solution.

## Resource Requirements

### Personnel

As in prior years, industry engagement is vital to the successful development of standards. The transformation of NERC standards to steady state will require additional industry engagement throughout 2015. In 2016, industry subject matter expert engagement requirements will be ongoing as the remaining projects from 2015 are finalized.

The NERC Standards department continues to focus resources on the production of quality standards, rather than solely on the monitoring and execution of the standards process. Workload in the standards area during 2015 is anticipated to be less than projected when the *2015 Business Plan and Budget* was developed. This is due to a reduction in the number of new standards under development, a reduction in outstanding FERC directives, and more efficient and effective workloads and resource management. These factors contributed to the reallocation of resources from the Standards department to other NERC departments. For 2016, budgeted FTEs were reduced to reflect this resource reallocation and reduction in department staffing levels. No additional personnel resources are planned for 2016. The departmental travel expenses are expected to be the same as the 2015 levels, given the anticipated amount of outreach for the number of standards reviews expected to be in process, coupled with cost savings resulting from holding more meetings at NERC's Atlanta and Washington, DC, offices.

### Contractors and Consultants

No contractor and consulting support is budgeted in 2016, which is consistent with the 2015 budget.

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<sup>24</sup>As defined in the 2015-2017 RSDP, "steady state" means a stable set of clear, concise, high-quality and technically sound Reliability Standards that are results based, including retirement of requirements that do little to promote reliability.



**Section A — 2016 Business Plan and Budget Program Area and Department Detail**

<b>Statement of Activities and Fixed Assets Expenditures</b>							
<b>2015 Budget &amp; Projection, and 2016 Budget</b>							
<b>RELIABILITY STANDARDS</b>							
	<b>2015 Budget</b>	<b>2015 Projection</b>	<b>Variance 2015 Projection v 2015 Budget Over(Under)</b>	<b>2016 Budget</b>	<b>Variance 2016 Budget v 2015 Budget Over(Under)</b>	<b>2016 Budget Draft 1</b>	<b>Variance to Prior Draft Over(Under)</b>
<b>Funding</b>							
<b>ERO Funding</b>							
NERC Assessments	\$ 9,911,464	\$ 9,911,464	\$ -	\$ 7,869,295	\$ (2,042,169)	\$ 8,092,298	\$ (223,003)
Penalty Sanctions	231,095	231,095	-	218,376	(12,719)	128,563	89,813
<b>Total NERC Funding</b>	<b>\$ 10,142,558</b>	<b>\$ 10,142,559</b>	<b>\$ -</b>	<b>\$ 8,087,671</b>	<b>\$ (2,054,888)</b>	<b>\$ 8,220,861</b>	<b>\$ (133,190)</b>
Third-Party Funding	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-
Workshops	104,000	104,000	-	105,000	1,000	105,000	-
Interest	587	587	-	445	(142)	449	(4)
Miscellaneous	-	24	24	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 10,247,145</b>	<b>\$ 10,247,170</b>	<b>\$ 24</b>	<b>\$ 8,193,116</b>	<b>\$ (2,054,030)</b>	<b>\$ 8,326,310</b>	<b>\$ (133,194)</b>
<b>Expenses</b>							
<b>Personnel Expenses</b>							
Salaries	\$ 3,082,972	\$ 2,275,253	\$ (807,719)	\$ 2,260,735	\$ (822,238)	\$ 2,331,800	(71,066)
Payroll Taxes	202,258	170,118	(32,140)	163,064	(39,194)	166,118	(3,054)
Benefits	441,383	322,107	(119,276)	327,239	(114,144)	327,239	0
Retirement Costs	346,269	242,649	(103,620)	250,560	(95,710)	260,144	(9,584)
<b>Total Personnel Expenses</b>	<b>\$ 4,072,883</b>	<b>\$ 3,010,127</b>	<b>\$ (1,062,756)</b>	<b>\$ 3,001,598</b>	<b>\$ (1,071,285)</b>	<b>\$ 3,085,302</b>	<b>(83,704)</b>
<b>Meeting Expenses</b>							
Meetings	\$ 194,056	\$ 194,056	\$ -	\$ 207,000	\$ 12,944	\$ 207,000	-
Travel	339,300	300,000	(39,300)	271,988	(67,312)	271,715	274
Conference Calls	117,736	100,000	(17,736)	133,000	15,264	133,000	-
<b>Total Meeting Expenses</b>	<b>\$ 651,092</b>	<b>\$ 594,056</b>	<b>\$ (57,036)</b>	<b>\$ 611,988</b>	<b>\$ (39,104)</b>	<b>\$ 611,715</b>	<b>274</b>
<b>Operating Expenses</b>							
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-
Office Rent	-	-	-	-	-	-	-
Office Costs	76,276	58,911	(17,365)	64,622	(11,654)	64,622	-
Professional Services	-	-	-	-	-	-	-
Miscellaneous	500	500	-	500	-	500	-
Depreciation	-	194,645	194,645	210,060	210,060	210,060	-
<b>Total Operating Expenses</b>	<b>\$ 76,776</b>	<b>\$ 254,056</b>	<b>\$ 177,280</b>	<b>\$ 275,182</b>	<b>\$ 198,406</b>	<b>\$ 275,182</b>	<b>\$ -</b>
<b>Total Direct Expenses</b>	<b>\$ 4,800,751</b>	<b>\$ 3,858,239</b>	<b>\$ (942,512)</b>	<b>\$ 3,888,768</b>	<b>\$ (911,983)</b>	<b>\$ 3,972,198</b>	<b>\$ (83,430)</b>
<b>Indirect Expenses</b>	<b>\$ 5,139,603</b>	<b>\$ 4,271,179</b>	<b>\$ (868,424)</b>	<b>\$ 4,234,020</b>	<b>\$ (905,583)</b>	<b>\$ 4,281,116</b>	<b>\$ (47,096)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 9,940,354</b>	<b>\$ 8,129,418</b>	<b>\$ (1,810,936)</b>	<b>\$ 8,122,788</b>	<b>\$ (1,817,566)</b>	<b>\$ 8,253,314</b>	<b>\$ (130,526)</b>
<b>Change in Assets</b>	<b>\$ 306,791</b>	<b>\$ 2,117,752</b>	<b>\$ 1,810,960</b>	<b>\$ 70,328</b>	<b>\$ (236,464)</b>	<b>\$ 72,997</b>	<b>(2,669)</b>
<b>Fixed Assets</b>							
Depreciation	\$ -	\$ (194,645)	\$ (194,645)	\$ (210,060)	\$ (210,060)	\$ (210,060)	\$ -
Computer & Software CapEx	-	-	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-	-	-
Equipment CapEx	-	-	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-	-
Allocation of Fixed Assets	\$ 306,791	303,932	(2,859)	280,388	(26,403)	283,056	(2,669)
<b>Inc(Dec) in Fixed Assets ( C )</b>	<b>306,791</b>	<b>109,287</b>	<b>(197,504)</b>	<b>70,328</b>	<b>(236,463)</b>	<b>72,997</b>	<b>(2,669)</b>
<b>TOTAL BUDGET (=B + C)</b>	<b>\$ 10,247,145</b>	<b>\$ 8,238,706</b>	<b>\$ (2,008,439)</b>	<b>\$ 8,193,116</b>	<b>\$ (2,054,029)</b>	<b>\$ 8,326,310</b>	<b>\$ (133,194)</b>
<b>FTEs</b>	<b>24.40</b>	<b>18.51</b>	<b>(5.89)</b>	<b>17.98</b>	<b>(6.42)</b>	<b>17.979</b>	<b>0.00</b>

## 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 Reliability Standards. This program area is broken down into two operational groups: Reliability Assurance and Compliance Enforcement.

### Reliability Assurance

Reliability Assurance is comprised of three groups: Compliance Assurance, Compliance Analysis and Certification, and Registration. Together these areas address reliability, including subjectivity to and compliance with standards. The groups work in tandem with Compliance Enforcement, Standards, and Reliability Risk Management.

#### *Compliance Assurance*

	Compliance Assurance (in whole dollars)				
	2015 Budget	2016 Budget	Increase (Decrease)	2016 Budget - Prior Draft	Variance to Prior Draft Over(Under)
Total FTEs	12.19	19.36	7.17	15.67	3.69
Direct Expenses	\$ 3,016,607	\$ 4,559,233	\$ 1,542,628	\$ 3,672,752	\$ 886,481
Indirect Expenses	\$ 2,567,695	\$ 4,559,714	\$ 1,992,019	\$ 3,732,255	\$ 827,459
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 153,270	\$ 301,956	\$ 148,686	\$ 246,767	\$ 55,189
<b>TOTAL BUDGET</b>	<b>\$ 5,737,572</b>	<b>\$ 9,420,903</b>	<b>\$ 3,683,333</b>	<b>\$ 7,651,774</b>	<b>\$ 1,769,130</b>

### Background and Scope

NERC's Compliance Assurance group (formerly the Compliance Operations department) works collaboratively with the eight Regional Entities to ensure consistent and effective implementation of risk-based compliance monitoring under 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 Compliance Assurance 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;
- Development and delivery of comprehensive and ongoing education and training on risk-based compliance monitoring and enforcement for ERO Enterprise staff;
- Oversight of the Regional Entities' delegated compliance functions, including: (1) consistent and uniform CMEP planning, implementation, and reporting; (2) compliance operations and coordination; and (3) auditor training;

- 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;
- CIP-014-1 training and outreach activities related to effective implementation of the Physical Security Reliability Standard;
- Development of baseline monitoring requirements;
- Development and maintenance of Reliability Standard Audit Worksheets (RSAWs);
- Support for Regional Entity and industry committees, working groups, and task forces, such as the NERC Compliance and Certification Committee; and
- Guidance (with support from the Regional Entities) to the ERO Enterprise for NERC Reliability Standards associated with 2015 risk elements and training for every Reliability Standard approved by FERC.

### **Stakeholder Engagement and Benefit**

The Compliance Assurance group is committed to ensuring that all registered entities understand their compliance obligations and how compliance will be assessed.

Compliance Assurance also 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.

NERC continues to promote registered entities' development of effective compliance programs and internal controls. The Compliance Assurance 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 the entity's relevant internal controls will support a consistent, risk-based approach to how compliance monitoring activities may be scoped.

NERC also continues to provide industry-focused outreach events and webinars on the ERO Enterprise's approaches to risk-based CMEP activities. On March 5, 2015, a panel of participants from NERC, Regional Entities, and stakeholder companies discussed the components of the transformed, risk-based CMEP. Additional outreach efforts will include, at minimum, quarterly webinars on lessons learned, process updates, and guidance for compliance monitoring and enforcement activities, combined with a second industry focused event in Q4 2015. Further, ERO Enterprise staff will conduct a webinar series providing guidance on standards and requirements associated with the 2015 risk elements identified for consideration for compliance monitoring.

Throughout the remainder of 2015 and during 2016, ERO Enterprise staff will continue holding advisory group meetings to identify additional outreach and education needs, as well as providing an opportunity for industry input into the rollout of the ERO Enterprise's implementation of risk-based approaches to the CMEP.

## Key Efforts Underway

### Risk-Based Compliance Monitoring

Consistent with the goals and objectives set forth in the strategic plan, NERC will continue to implement risk-based compliance monitoring and enforcement 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 on registered entities.

The ERO Enterprise has begun implementation of all aspects of the risk-based CMEP. Oversight related to the design documents is underway, and NERC and Regional Entity management remain in close coordination to ensure successful implementation. The Compliance Assurance department and Compliance Enforcement department staff will regularly address the following topics:

- Continued training of the ERO Enterprise staff.
- Continued outreach efforts during 2015 (including industry-focused workshops, a small entity tabletop exercise for ERO Enterprise staff, tutorials on the use of compliance and enforcement information available online and efforts to support and encourage information sharing among registered entities.)
- Oversight of Regional Entity implementation of various risk-based processes.
- Development and benchmarking of metrics to support the measures of success for the risk-based CMEP identified in November 2014.

### Regional Entity Oversight and Compliance

Ensuring the successful implementation of the risk-based CMEP is the priority of NERC's Compliance Assurance and Compliance Enforcement department. For Compliance Assurance, oversight activities will occur through a two-phased approach.

Phase 1 began during Q1 2015. It is designed to establish conceptual consistency in the application of the ERO Enterprise's risk-based approach by reviewing each Region's risk-based process documentation to understand its conceptual intents of application and compare these concepts to the ERO Enterprise's guidance documents. This will involve dialogue and the collection and review of supporting documents that describe the Regional Entity's execution and application of the design for the ERO Enterprise's risk-based CMEP.

In Phase 2, Compliance Assurance's oversight will evolve into a more traditional evaluation of how risk-based compliance monitoring concepts are utilized, the determinations made when using risk-based concepts, and the results of their application by the Regional Entities. Phase 2 oversight will continue throughout 2015 and into 2016 and will focus on samples of compliance monitoring work by each Regional Entity as they apply these risk-based concepts.

### 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. In addition to the transition from Version 3 to Version 5 of the CIP standards, NERC and the Regional Entities are further supporting the successful implementation and monitoring of the Physical Security Reliability Standard.

## 2016 Goals and Deliverables

The Compliance Assurance group has several goals and objectives that support the *ERO Enterprise Strategic Plan*. Resources will be focused on building upon the framework and improvements implemented as a result of the risk-based compliance monitoring activities in 2014 and 2015. Specific 2016 objectives for this group are:

- Develop and implement a training program to support implementation of the common audit procedures and the ERO Auditor Capabilities and Competencies Guide.
- Work closely with NERC's Enforcement and IT departments, as well as staff in the Regional Entities, regarding the improvements in the existing compliance, reporting, analysis tracking system, and other compliance tools to support risk-based activities.
- Make effective internal controls models and information available to industry.
- Initiate compliance phase-in learning periods for new standards.
- Transition to a single ERO approach for compliance monitoring, common audit planning, and consistent implementation of risk-based techniques and principles.
- Consolidate to a common set of RSAWs, or successors, for all standards.
- Create technically sound training to support compliance methodologies and testing approaches for Reliability Standards.
- Support the successful transition to the CIP Version 5 Reliability Standards that become effective in 2016.
- Continue to monitor and support effective implementation and monitoring of the Physical Security Reliability Standard.

These 2016 activities are necessary to ensure that policies, processes, and procedures are implemented both uniformly and consistently across the Regions. A number of compliance monitoring 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. Moreover, oversight will ensure 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

FTE additions for 2016 reflect the reallocation of 2015 budgeted FTEs to support key departmental initiatives related to successful implementation and oversight of the risk-based CMEP.

### Contractors and Consultants

Funds have been budgeted for outside consultants to assist in successful implementation of risk-based compliance monitoring. While at a reduced level from the 2014 and 2015 budgets, these resources are necessary to support the transformation of NERC's Compliance Monitoring and Enforcement Program to a risk-based design. 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.

Section A — 2016 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Assets Expenditures							
2015 Budget & Projection, and 2016 Budget							
COMPLIANCE ASSURANCE							
	2015 Budget	2015 Projection	Variance		Variance		Variance to Prior Draft Over(Under)
			2015 Projection v 2015 Budget Over(Under)	2016 Budget	2016 Budget v 2015 Budget Over(Under)	2016 Budget Draft 1	
<b>Funding</b>							
<b>ERO Funding</b>							
NERC Assessments	\$ 5,621,826	\$ 5,621,826	\$ -	\$ 9,185,250	\$ 3,563,424	\$ 7,539,302	\$ 1,645,948
Penalty Sanctions	115,453	115,453	-	235,174	119,722	112,081	123,094
<b>Total NERC Funding</b>	<b>\$ 5,737,279</b>	<b>\$ 5,737,279</b>	<b>\$ -</b>	<b>\$ 9,420,424</b>	<b>\$ 3,683,146</b>	<b>\$ 7,651,382</b>	<b>\$ 1,769,042</b>
Third-Party Funding	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-
Workshops	-	-	-	-	-	-	-
Interest	293	293	-	479	186	392	88
Miscellaneous	-	21	21	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 5,737,572</b>	<b>\$ 5,737,593</b>	<b>\$ 21</b>	<b>\$ 9,420,903</b>	<b>\$ 3,683,332</b>	<b>\$ 7,651,774</b>	<b>\$ 1,769,130</b>
<b>Expenses</b>							
<b>Personnel Expenses</b>							
Salaries	\$ 1,783,650	\$ 2,500,644	\$ 716,994	\$ 3,063,004	\$ 1,279,353	\$ 2,362,252	700,752
Payroll Taxes	115,456	169,529	54,073	205,979	90,524	163,191	42,788
Benefits	220,692	270,682	49,990	351,727	131,035	288,548	63,179
Retirement Costs	200,525	234,431	33,906	336,902	136,377	264,123	72,779
<b>Total Personnel Expenses</b>	<b>\$ 2,320,322</b>	<b>\$ 3,175,286</b>	<b>\$ 854,964</b>	<b>\$ 3,957,612</b>	<b>\$ 1,637,289</b>	<b>\$ 3,078,113</b>	<b>\$ 879,498</b>
<b>Meeting Expenses</b>							
Meetings	\$ 70,000	\$ 100,000	\$ 30,000	\$ 60,000	\$ (10,000)	\$ 60,000	-
Travel	198,000	242,000	44,000	276,343	78,343	276,065	278
Conference Calls	7,200	66,394	59,194	20,000	12,800	20,000	-
<b>Total Meeting Expenses</b>	<b>\$ 275,200</b>	<b>\$ 408,394</b>	<b>\$ 133,194</b>	<b>\$ 356,343</b>	<b>\$ 81,143</b>	<b>\$ 356,065</b>	<b>\$ 278</b>
<b>Operating Expenses</b>							
Consultants & Contracts	\$ 388,000	\$ 388,000	\$ -	\$ 200,000	\$ (188,000)	\$ 200,000	-
Office Rent	-	-	-	-	-	-	-
Office Costs	32,834	35,152	2,318	44,779	11,945	38,074	6,705
Professional Services	-	-	-	-	-	-	-
Miscellaneous	250	250	-	500	250	500	-
Depreciation	-	1,090	1,090	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 421,084</b>	<b>\$ 424,493</b>	<b>\$ 3,408</b>	<b>\$ 245,279</b>	<b>\$ (175,805)</b>	<b>\$ 238,574</b>	<b>\$ 6,705</b>
<b>Total Direct Expenses</b>	<b>\$ 3,016,607</b>	<b>\$ 4,008,173</b>	<b>\$ 991,566</b>	<b>\$ 4,559,233</b>	<b>\$ 1,542,627</b>	<b>\$ 3,672,752</b>	<b>\$ 886,481</b>
<b>Indirect Expenses</b>	<b>\$ 2,567,695</b>	<b>\$ 3,715,072</b>	<b>\$ 1,147,377</b>	<b>\$ 4,559,714</b>	<b>\$ 1,992,019</b>	<b>\$ 3,732,255</b>	<b>\$ 827,459</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 5,843,302</b>	<b>\$ 7,723,245</b>	<b>\$ 2,138,943</b>	<b>\$ 9,118,947</b>	<b>\$ 3,534,645</b>	<b>\$ 7,405,007</b>	<b>\$ 1,713,941</b>
<b>Change in Assets</b>	<b>\$ 153,270</b>	<b>\$ (1,985,652)</b>	<b>\$ (2,138,922)</b>	<b>\$ 301,956</b>	<b>\$ 148,686</b>	<b>\$ 246,767</b>	<b>\$ 55,189</b>
<b>Fixed Assets</b>							
Depreciation	-	(1,090)	(1,090)	-	-	-	-
Computer & Software CapEx	-	-	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-	-	-
Equipment CapEx	-	-	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-	-
Allocation of Fixed Assets	\$ 153,270	\$ 264,360	111,091	301,956	148,686	\$ 246,767	55,189
<b>Inc(Dec) in Fixed Assets (C)</b>	<b>\$ 153,270</b>	<b>\$ 263,270</b>	<b>\$ 110,000</b>	<b>\$ 301,956</b>	<b>\$ 148,686</b>	<b>\$ 246,767</b>	<b>\$ 55,189</b>
<b>TOTAL BUDGET (=B + C)</b>	<b>\$ 5,737,572</b>	<b>\$ 7,986,515</b>	<b>\$ 2,248,943</b>	<b>\$ 9,420,903</b>	<b>\$ 3,683,332</b>	<b>\$ 7,651,774</b>	<b>\$ 1,769,130</b>
<b>FTEs</b>	<b>12.19</b>	<b>16.10</b>	<b>3.91</b>	<b>19.36</b>	<b>7.17</b>	<b>15.67</b>	<b>3.69</b>

## Compliance Analysis, Certification and Registration

Compliance Analysis, Certification and Registration (in whole dollars)					
	2015 Budget	2016 Budget	Increase (Decrease)	2016 Budget - Prior Draft	Variance to Prior Draft Over(Under)
Total FTEs	11.25	10.14	(1.11)	11.07	(0.93)
Direct Expenses	\$ 2,353,718	\$ 2,086,784	\$ (266,934)	\$ 2,376,906	\$ (290,122)
Indirect Expenses	\$ 2,369,694	\$ 2,387,951	\$ 18,257	\$ 2,635,961	\$ (248,011)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 141,451	\$ 158,136	\$ 16,685	\$ 174,283	\$ (16,147)
<b>TOTAL BUDGET</b>	<b>\$ 4,864,863</b>	<b>\$ 4,632,871</b>	<b>\$ (231,992)</b>	<b>\$ 5,187,150</b>	<b>\$ (554,280)</b>

### Background and Scope

The Compliance Analysis, Certification and Registration 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 group provides technical resource support to standards development, compliance monitoring, and enforcement and ensures that (1) all entities impacting the BES are registered commensurate with risk; (2) all RCs, TOPs, and BAs are certified; (3) industry maintains effective internal control programs for reliability assurance risk; and (4) compliance gaps identified in reportable events are assessed and addressed if appropriate. Specific activities of the group include:

- **Registration** – Identifies and registers BES users, owners, and operators who are responsible for compliance with Reliability Standards. Organizations that are registered are included on the NERC Compliance Registry (NCR) and are responsible for knowing the content of and complying with all applicable Reliability Standards. Maintains the current registration for the entire ERO for entities as they take on and drop functional responsibilities.
- **Certification** – Evaluates and certifies the competency of reliability entities; i.e., those that perform 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 and sub-requirements of all of the Reliability Standards applicable to the reliability function(s) for which they are being certified. This also includes confirming through the certification review process that a reliability entity continues to have the qualifications mentioned above following planned material changes to that entity's operation.
- **Compliance Analysis** – Conducts reliability assurance activities, including:
  - **Investigations** – Staff conducts non-public, confidential investigations to identify Possible Violations of NERC Reliability Standards in response to complaints, BES disturbances, or other similar triggers. Staff participates on all Regional Entity-led investigations and observe as requested on FERC-led reliability investigations and inquiries.
  - **Compliance evaluations** – Staff works closely with regional staff to confirm that qualified events and disturbances are evaluated against the relevant approved Reliability Standards and ensure formal compliance monitoring occurs if indicated. These analyses are also shared with FERC staff.
  - **Complaints** – NERC addresses formal complaints that allege the violation of Reliability Standards through a confidential process.



- **Reliability Assurance** – Conduct activities to reasonably assure the ERO that certain actions have been taken as reported in response to NERC Alerts or guidance to industry. An example of this is the Right-of-Way Clearances, which is one of the 2015 ERO Enterprise high-priority risk projects.
- **Oversight** – NERC provides oversight of Regional Entity implementation of regional registration, compliance, certification, investigation, complaint programs, and processes.

### **Risk-Based Registration**

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 the assessment of information about the current Registration program attributes. NERC finalized the first phase of RBR via a filing with FERC in November 2014. FERC approved it in March 2015 and issued directives to which NERC is currently responding.

### **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, preserve 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.

### **Key Efforts Underway**

In 2014, the Compliance Analysis, Certification and Registration group developed the new RBR design and registration criteria, which included Board approval of a full implementation plan by year-end. In 2015, after FERC approval on March 19, 2015, NERC implemented Phase I of this effort, which included deactivation of Purchasing-Selling Entities (PSEs) and Interchange Authorities (IAs), while working on providing FERC with more information on the proposal to deactivate Load Serving Entities (LSEs) and Distribution Providers (DPs).

The overall benefits of the RBR program include:

- Reduced industry burden associated with registration and ensuring no gaps or duplication of compliance responsibilities.
- 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 RBR program design.

As a part of Phase 2 of RBR, staff will work on technical review and analysis to determine if further refinements are needed for Transmission Owners (TOs), Transmission Operators (TOPs), Generation Owners (GOs) and Generation Operators (GOPs). NERC will continue to work with RBRAG, the RBR Task Force, and industry to complete Phase 2. If warranted, recommendations will be developed along with



transition plans for delivery to the NERC Board for endorsement or approval of any necessary ROP changes.

Staff is also working with the Regional Entities to further evaluate the current certification program. To the extent that changes, enhancements, or a discontinuation of the program are identified, recommendations will be developed along with transition plans targeted to be implemented in 2016. Depending on the level of change or enhancements, additional resource demands may be required in 2016; however, the budget demands cannot be fully assessed at this time.

### **2016 Goals and Deliverables**

The planned activities for 2016 include continuation of current initiatives, as well as enhanced oversight and quality assurance reviews of Regional Entity performance of delegated registration, certification, investigations, and complaint duties. This oversight will include site visits, tabletop reviews, self-certifications, and sampling of performance. This will enable NERC to assess the Regional Entities' performance on agreed-upon goals and measures.

### **Resource Requirements**

#### **Personnel**

No additional personnel are budgeted for 2016. The variance in FTEs between budgets is due to the reallocation of one position to another department and the application of an updated vacancy rate (7.8% vs 6.0%).

#### **Contractor Expenses**

Contractor expenses of \$50k are budgeted for 2016 for outside technical support in connection with RBR implementation.

Section A — 2016 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Assets Expenditures							
2015 Budget & Projection, and 2016 Budget							
COMPLIANCE ANALYSIS, CERTIFICATION and REGISTRATION							
	2015	2015	Variance	2016	Variance	2016 Budget	Variance to
	Budget	Projection	2015 Projection	Budget	2016 Budget	Draft 1	Prior Draft
			v 2015 Budget		v 2015 Budget		Over(Under)
			Over(Under)		Over(Under)		Over(Under)
<b>Funding</b>							
<b>ERO Funding</b>							
NERC Assessments	\$ 4,758,043	\$ 4,758,043	\$ -	\$ 4,509,458	\$ (248,585)	\$ 5,107,715	\$ (598,258)
Penalty Sanctions	106,550	106,550	-	123,162	16,612	79,159	44,004
<b>Total NERC Funding</b>	<b>\$ 4,864,593</b>	<b>\$ 4,864,593</b>	<b>\$ -</b>	<b>\$ 4,632,620</b>	<b>\$ (231,973)</b>	<b>\$ 5,186,874</b>	<b>\$ (554,254)</b>
Third-Party Funding	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-
Workshops	-	-	-	-	-	-	-
Interest	270	270	-	251	(19)	277	(26)
Miscellaneous	-	14	14	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 4,864,863</b>	<b>\$ 4,864,877</b>	<b>\$ 14</b>	<b>\$ 4,632,871</b>	<b>\$ (231,992)</b>	<b>\$ 5,187,150</b>	<b>\$ (554,280)</b>
<b>Expenses</b>							
<b>Personnel Expenses</b>							
Salaries	\$ 1,658,833	\$ 1,492,294	\$ (166,539)	\$ 1,410,333	\$ (248,500)	\$ 1,644,792	(234,459)
Payroll Taxes	105,003	103,460	(1,543)	97,779	(7,224)	109,404	(11,624)
Benefits	203,715	189,745	(13,970)	184,238	(19,478)	200,987	(16,749)
Retirement Costs	186,557	163,263	(23,294)	157,451	(29,106)	183,278	(25,827)
<b>Total Personnel Expenses</b>	<b>\$ 2,154,108</b>	<b>\$ 1,948,762</b>	<b>\$ (205,346)</b>	<b>\$ 1,849,801</b>	<b>\$ (304,307)</b>	<b>\$ 2,138,461</b>	<b>(288,660)</b>
<b>Meeting Expenses</b>							
Meetings	\$ 3,064.00	\$ 4,583	\$ 1,519	\$ 4,000	\$ 936	\$ 4,000	-
Travel	164,158	171,000	6,842	155,146	(9,012)	154,989	156
Conference Calls	3,588	3,000	(588)	2,000	(1,588)	2,000	-
<b>Total Meeting Expenses</b>	<b>\$ 170,810</b>	<b>\$ 178,583</b>	<b>\$ 7,773</b>	<b>\$ 161,146</b>	<b>\$ (9,664)</b>	<b>\$ 160,989</b>	<b>156</b>
<b>Operating Expenses</b>							
Consultants & Contracts	\$ -	\$ -	\$ -	\$ 50,000	\$ 50,000	\$ 50,000	-
Office Rent	-	-	-	-	-	-	-
Office Costs	28,550	26,924	(1,626)	25,338	(3,213)	26,956	(1,618)
Professional Services	-	-	-	-	-	-	-
Miscellaneous	250	250	-	500	250	500	-
Depreciation	-	1,057	1,057	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 28,800</b>	<b>\$ 28,231</b>	<b>\$ (570)</b>	<b>\$ 75,838</b>	<b>\$ 47,037</b>	<b>\$ 77,456</b>	<b>\$ (1,618)</b>
<b>Total Direct Expenses</b>	<b>\$ 2,353,718</b>	<b>\$ 2,155,576</b>	<b>\$ (198,142)</b>	<b>\$ 2,086,784</b>	<b>\$ (266,935)</b>	<b>\$ 2,376,906</b>	<b>\$ (290,122)</b>
<b>Indirect Expenses</b>	<b>\$ 2,369,694</b>	<b>\$ 2,526,711</b>	<b>\$ 157,017</b>	<b>\$ 2,387,951</b>	<b>\$ 18,257</b>	<b>\$ 2,635,961</b>	<b>\$ (248,011)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 4,723,412</b>	<b>\$ 4,682,287</b>	<b>\$ (41,126)</b>	<b>\$ 4,474,734</b>	<b>\$ (248,678)</b>	<b>\$ 5,012,867</b>	<b>\$ (538,133)</b>
<b>Change in Assets</b>	<b>\$ 141,451</b>	<b>\$ 182,591</b>	<b>\$ 41,140</b>	<b>\$ 158,136</b>	<b>\$ 16,686</b>	<b>\$ 174,283</b>	<b>(16,147)</b>
<b>Fixed Assets</b>							
Depreciation	-	(1,057)	(1,057)	-	-	-	-
Computer & Software CapEx	-	-	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-	-	-
Equipment CapEx	-	-	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-	-
Allocation of Fixed Assets	\$ 141,451	\$ 179,798	38,347	158,136	16,685	\$ 174,283	(16,147)
<b>Inc(Dec) in Fixed Assets (C)</b>	<b>\$ 141,451</b>	<b>\$ 178,741</b>	<b>\$ 37,291</b>	<b>\$ 158,136</b>	<b>\$ 16,685</b>	<b>\$ 174,283</b>	<b>\$ (16,147)</b>
<b>TOTAL BUDGET (=B + C)</b>	<b>\$ 4,864,863</b>	<b>\$ 4,861,028</b>	<b>\$ (3,835)</b>	<b>\$ 4,632,871</b>	<b>\$ (231,993)</b>	<b>\$ 5,187,150</b>	<b>\$ (554,280)</b>
<b>FTEs</b>	<b>11.25</b>	<b>10.95</b>	<b>(0.30)</b>	<b>10.14</b>	<b>(1.11)</b>	<b>11.07</b>	<b>(0.93)</b>

## Compliance Enforcement Department

Compliance Enforcement (in whole dollars)					
	2015 Budget	2016 Budget	Increase (Decrease)	2016 Budget - Prior Draft	Variance to Prior Draft Over(Under)
Total FTEs	15.01	12.22	(2.79)	13.37	(1.15)
Direct Expenses	\$ 2,456,441	\$ 2,225,938	\$ (230,501)	\$ 2,422,986	\$ (197,048)
Indirect Expenses	\$ 3,161,698	\$ 2,876,962	\$ (284,736)	\$ 3,183,394	\$ (306,431)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 188,727	\$ 190,398	\$ 1,671	\$ 210,356	\$ (19,958)
TOTAL BUDGET	\$ 5,806,866	\$ 5,293,298	\$ (513,567)	\$ 5,816,736	\$ (523,437)

### 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 risk-based Compliance Monitoring and Enforcement Program. The department also focuses on ensuring that the ERO Enterprise dedicates resources to the matters that pose the greatest risk to reliability.

The NERC Compliance Enforcement department performs its responsibilities by:

- Monitoring Regional Entities' enforcement processes and providing oversight over their outcomes 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 policies and processes;
- Filing notices of penalty and other submittals associated with noncompliance discovered through Regional Entity compliance monitoring and enforcement activities;
- Processing and filing notices of penalty and other submittals associated with violations discovered through NERC-led investigations and audits;
- Collaborating with other NERC departments, including Compliance Assurance, Standards, Event Analysis, and Regional Entity Coordination;
- Delivering training of the ERO Enterprise staff and other outreach efforts, offering tutorials on the use of compliance and enforcement information available online, and supporting and encouraging information sharing among registered entities; and
- Coordinating with the Regional Entities on implementation of various risk-based processes.

### Stakeholder Engagement and Benefit

Over the past few years, NERC and the Regional Entities have 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 instances of noncompliance that posed a risk to the reliability of the BPS while ensuring that enforcement actions are timely and transparent. NERC promotes a culture of

reliability excellence by examining registered entities' internal compliance programs and considering them as mitigating factors in penalty determinations.

### **Completion of the Reliability Assurance Initiative**

In 2014, through the Reliability Assurance Initiative (RAI), NERC completed the design of the various components of the risk-based CMEP, and in 2015 and 2016, the ERO Enterprise will focus on the CMEP's successful implementation. NERC is transitioning the information previously accumulated in the RAI page of NERC's website to the Compliance and Enforcement pages, which will be redesigned to be more usable. The RAI page will remain in place during 2015, with all of its current content, to ensure that the information remains available to all interested parties while the Compliance and Enforcement pages are reorganized. NERC also will continue to highlight new information available regarding the risk-based CMEP in its weekly bulletins and monthly newsletter.

### **Processing Efficiencies**

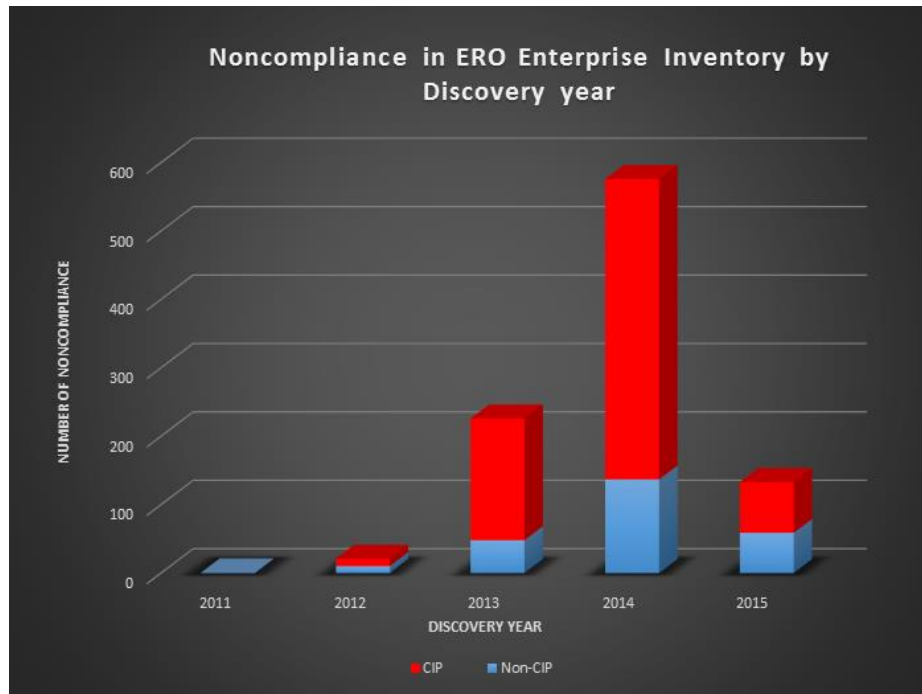
In an effort to improve the efficiency of enforcement processing throughout the ERO Enterprise, NERC developed a series of key enforcement processing metrics, which are tracked and analyzed throughout the year. In addition, in 2012, 2013, and 2014, NERC established corporate goals to reduce the number 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.

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%. During 2013, the ERO Enterprise reduced the number of pre-2012 violations (excluding on-hold violations) by 93%. In 2014, 92.75% of the pre-2013 noncompliance issues were processed and resolved. The 35 pre-2013 remaining non-federal-entity instances of noncompliance<sup>25</sup> represent 0.43% of the total violations submitted to the ERO Enterprise from 2007 through December 31, 2014.

The targets and thresholds for processing efficiency-related metrics remain the same in 2015. This is because the ERO Enterprise has achieved a steady state with regard to enforcement processing. This has only been possible due to the hard work of the Regional Entities and NERC Enforcement in eliminating backlog in 2013 and 2014 and incorporating new enforcement processes and procedures into practice.

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<sup>25</sup> The active caseload does not include instances of noncompliance that have been on hold and not available for processing pending a court decision on the applicability of monetary penalties to federal entities. In August 2014, the court issued a decision holding that monetary penalties are not applicable to federal entities, and the ERO Enterprise has developed a plan to resolve a majority of these items during 2015. Despite the on-hold status, the majority of these instances of noncompliance were mitigated.



### Continued Outreach Efforts in 2015 and Beyond

Currently scheduled events for 2015 include industry-focused outreach events and webinars on the ERO Enterprise's approaches to risk-based CMEP activities. Agenda topics and discussions will incorporate feedback obtained from prior industry outreach events as well as any lessons learned during the ERO Enterprise's implementation and rollout of the risk-based CMEP.

Additional outreach efforts will include, at minimum, quarterly webinars on lessons learned, process updates, and guidance for compliance monitoring and enforcement activities, combined with industry-focused events. Further, ERO Enterprise staff will conduct a webinar series providing guidance on standards and requirements associated with the 2015 risk elements identified for consideration for compliance monitoring.

Throughout 2015, ERO Enterprise staff will continue holding advisory group meetings to identify additional outreach and education needs as well as provide an opportunity for industry input into the rollout of the ERO Enterprise's implementation of risk-based approaches to the CMEP.

### Risk-Based CMEP Implementation

On February 19, 2015, FERC approved the implementation of the risk-based CMEP. The goal of the CMEP is to shift the compliance and enforcement approach from one in which all instances of noncompliance are evaluated as Possible Violations 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 programs discussed below, in conjunction with compliance outreach encouraging the development of strong management practices, will advance NERC's progress toward this goal.

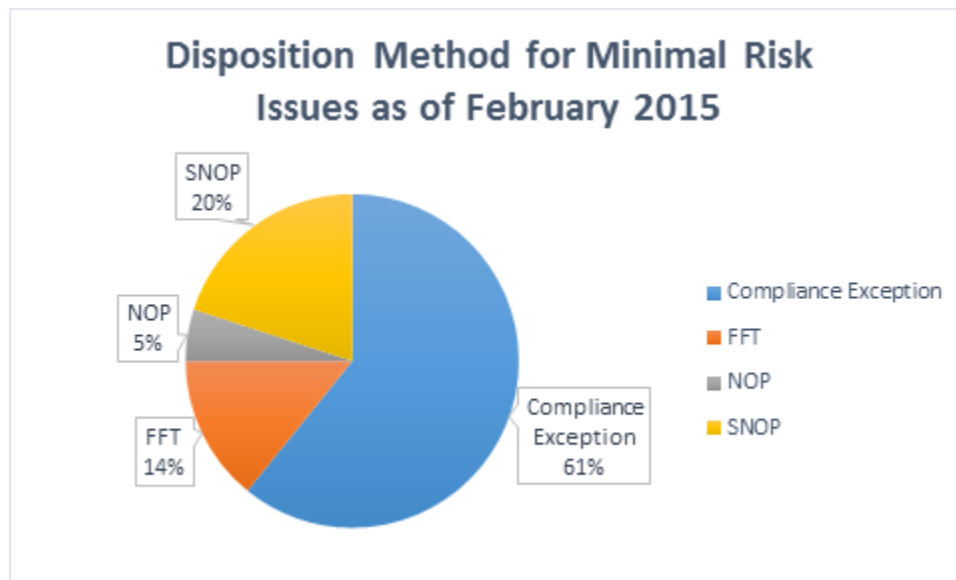
### Compliance Exceptions

A compliance exception is an alternative disposition method and is not a dismissal; Find, Fix, Track (FFT); or Notice of Penalty. It is essentially the exercise of enforcement discretion with respect to a noncompliance regardless of its method of discovery (self-report, self-certification, compliance audit finding, etc.). The process of identifying and recording a compliance exception builds on the FFT program.

The ERO Enterprise exercises discretion in the process by taking into account the facts and circumstances of the noncompliance, the risk posed by the noncompliance to the reliability of the BPS, and the deterrent effect of an enforcement action or penalty, among other things. Compliance exception treatment is available for issues that pose a minimal risk to the BPS that would be mitigated within 12 months of the date the compliance exception is posted.

In 2013 and 2014, the use of compliance exceptions (as the alternative disposition for noncompliance posing a minimal risk to the reliability of the BPS) was limited to allow the testing of the new process. In 2013, 43% of noncompliance instances were disposed through the FFT process. In 2014, 34% of noncompliance instances were disposed through the FFT process, and 10% were provided compliance exception treatment. The utilization of streamlined disposition tracks for lesser-risk issues remains steady and reflects the continued use of these tracks as well as an initial shift of usage of compliance exceptions in lieu of FFTs.

In 2015, this disposition track became available throughout the ERO Enterprise. Utilization of compliance exceptions as a disposition track has increased steadily. NERC Compliance Enforcement expects that the full-year 2015 data will show a more even distribution of the utilization of compliance exceptions. It should also show an increase in utilization of compliance exceptions and a corresponding reduction of minimal-risk issues processed as FFTs, compared to 2014. These positive trends should continue into 2016.



### Self-Logging

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. As of January 1, 2015, 19 registered entities have been permitted to self-log minimal-risk noncompliance instances. The self-logging program allows any registered entities that have demonstrated effective management practices to keep track of minimal-risk noncompliance (and related mitigation) on a log that is periodically reviewed by the Regional Entity.

As directed by FERC, a formal review of an entity’s internal controls is required before a Regional Entity grants the flexibility to self-log instances of noncompliance. The program is now available to any registered entity that would like to be evaluated by its Regional Entity in accordance with the program requirements.

## **NERC Oversight of Risk-Based CMEP Implementation**

For 2015, ensuring the successful implementation of NERC's risk-based CMEP is the priority of Compliance Enforcement's oversight plan. As part of that oversight and in addition to offering regular feedback to the Regional Entities, NERC will provide a report by the end of 2015 identifying areas for improvement or promoting consistency through training, guidance, or adjustment the following year. NERC also produces an annual ERO CMEP report, which for 2015 will include an assessment of the risk-based CMEP implementation. NERC will publish that report during Q1 2016.

NERC performs oversight of the Regional Entities' enforcement programs primarily through the review of the processes, supporting evidence, and other information provided by the Regional Entities over the course of focused engagements of program areas that are scheduled throughout the year. NERC communicates the recommendations and findings to the Regional Entities to help the ERO Enterprise develop responsive strategies and solutions to potential issues and ensure uniform and consistent implementation of the CMEP. Such recommendations and findings also help identify priority areas for training of ERO Enterprise staff during the year.

## **Other Key Enforcement Efforts Underway**

### **Regional Entities Training**

NERC Enforcement will provide training to Regional Entity staff on the risk-based CMEP processes, especially compliance exceptions and the self-logging program. NERC is developing this training based on early experience with implementing the programs, as well as observations from the various spot checks.

NERC will measure if ERO Enterprise staff performing key activities are trained and competent in their areas of responsibility, such as risk assessment, audit, internal controls evaluation, and enforcement, and are perceived by registered entities as being well qualified in their roles. NERC will track participation of Regional Entity enforcement staff in each category.

### **2016 Goals and Deliverables**

Specific 2016 objectives for the Compliance Enforcement department include:

- Refining and improving the risk-based CMEP processes;
- Implementing in a transparent manner an ERO Enterprise enforcement philosophy that is risk focused and drives desired behaviors by registered entities;
- Expanding the feedback loop of information from Enforcement to Standards and other program areas; and
- Working closely with NERC's Compliance Assurance and Information technology departments, as well as staff in the Regional Entities, regarding the improvements in the existing compliance, reporting, analysis tracking system, and other compliance tools to support risk-based activities.

## **Resource Requirements**

### **Personnel**

Efforts to improve the efficiency and effectiveness of the Enforcement department's operations and reduce its backlog have permitted the department to reduce current staffing levels below 2015 budgeted amounts, allowing additional resources to be allocated to other ERO departmental priorities. No changes to current Enforcement staffing levels are proposed in 2016.

## Contractor Expenses

The Information Technology budget includes funding for the maintenance, evaluation, and development of enterprise tools supporting technical feasibility exceptions, registration, and enforcement activities.

Statement of Activities and Fixed Assets Expenditures							
2015 Budget & Projection, and 2016 Budget							
COMPLIANCE ENFORCEMENT							
	2015 Budget	2015 Projection	Variance 2015 Projection v 2015 Budget Over(Under)	2016 Budget	Variance 2016 Budget v 2015 Budget Over(Under)	2016 Budget Draft 1	Variance to Prior Draft Over(Under)
<b>Funding</b>							
<b>ERO Funding</b>							
NERC Assessments	\$ 5,664,344	\$ 5,664,344	\$ -	\$ 5,144,612	\$ (519,732)	\$ 5,720,803	\$ (576,191)
Penalty Sanctions	142,161	142,161	-	148,384	6,223	95,598	52,786
<b>Total NERC Funding</b>	<b>\$ 5,806,505</b>	<b>\$ 5,806,505</b>	<b>\$ -</b>	<b>\$ 5,292,996</b>	<b>\$ (513,509)</b>	<b>\$ 5,816,402</b>	<b>\$ (523,406)</b>
Third-Party Funding	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-
Workshops	-	-	-	-	-	-	-
Interest	361	361	-	302	(59)	334	(32)
Miscellaneous	-	17	17	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 5,806,866</b>	<b>\$ 5,806,883</b>	<b>\$ 17</b>	<b>\$ 5,293,298</b>	<b>\$ (513,568)</b>	<b>\$ 5,816,736</b>	<b>\$ (523,437)</b>
<b>Expenses</b>							
<b>Personnel Expenses</b>							
Salaries	\$ 1,785,495	\$ 1,680,103	\$ (105,392)	\$ 1,629,233	\$ (156,262)	\$ 1,777,015	(147,782)
Payroll Taxes	110,866	112,910	2,044	109,485	(1,381)	119,666	(10,181)
Benefits	254,644	226,735	(27,909)	222,877	(31,767)	243,495	(20,618)
Retirement Costs	200,635	177,029	(23,606)	181,419	(19,216)	198,234	(16,815)
<b>Total Personnel Expenses</b>	<b>\$ 2,351,641</b>	<b>\$ 2,196,777</b>	<b>\$ (154,864)</b>	<b>\$ 2,143,014</b>	<b>\$ (208,627)</b>	<b>\$ 2,338,409</b>	<b>(195,395)</b>
<b>Meeting Expenses</b>							
Meetings	\$ 2,000	\$ 1,000	\$ (1,000)	\$ 2,500	\$ 500	\$ 2,500	-
Travel	57,900	52,000	(5,900)	56,736	(1,164)	56,679	57
Conference Calls	2,900	1,500	(1,400)	1,200	(1,700)	1,200	-
<b>Total Meeting Expenses</b>	<b>\$ 62,800</b>	<b>\$ 54,500</b>	<b>\$ (8,300)</b>	<b>\$ 60,436</b>	<b>\$ (2,364)</b>	<b>\$ 60,379</b>	<b>57</b>
<b>Operating Expenses</b>							
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-
Office Rent	-	-	-	-	-	-	-
Office Costs	41,500	25,159	(16,341)	21,866	(19,634)	23,575	(1,710)
Professional Services	-	-	-	-	-	-	-
Miscellaneous	500	1,000	500	500	-	500	-
Depreciation	-	1,790	1,790	122	122	122	-
<b>Total Operating Expenses</b>	<b>\$ 42,000</b>	<b>\$ 27,948</b>	<b>\$ (14,052)</b>	<b>\$ 22,488</b>	<b>\$ (19,512)</b>	<b>\$ 24,197</b>	<b>\$ (1,710)</b>
<b>Total Direct Expenses</b>	<b>\$ 2,456,441</b>	<b>\$ 2,279,225</b>	<b>\$ (177,216)</b>	<b>\$ 2,225,938</b>	<b>\$ (230,502)</b>	<b>\$ 2,422,986</b>	<b>\$ (197,048)</b>
<b>Indirect Expenses</b>	<b>\$ 3,161,698</b>	<b>\$ 2,960,520</b>	<b>\$ (201,178)</b>	<b>\$ 2,876,962</b>	<b>\$ (284,736)</b>	<b>\$ 3,183,394</b>	<b>\$ (306,431)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>
<b>Total Expenses (B)</b>	<b>\$ 5,618,139</b>	<b>\$ 5,239,745</b>	<b>\$ (378,394)</b>	<b>\$ 5,102,901</b>	<b>\$ (515,239)</b>	<b>\$ 5,606,380</b>	<b>\$ (503,479)</b>
<b>Change in Assets</b>	<b>\$ 188,727</b>	<b>\$ 567,137</b>	<b>\$ 378,411</b>	<b>\$ 190,398</b>	<b>\$ 1,671</b>	<b>\$ 210,356</b>	<b>(19,958)</b>
<b>Fixed Assets</b>							
Depreciation	-	(1,790)	(1,790)	(122)	(122)	(122)	-
Computer & Software CapEx	-	-	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-	-	-
Equipment CapEx	-	-	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-	-
Allocation of Fixed Assets	\$ 188,727	\$ 210,667	21,941	190,520	1,793	210,478	(19,958)
<b>Inc(Dec) in Fixed Assets (C)</b>	<b>\$ 188,727</b>	<b>\$ 208,878</b>	<b>\$ 20,151</b>	<b>\$ 190,398</b>	<b>\$ 1,671</b>	<b>\$ 210,356</b>	<b>\$ (19,958)</b>
<b>TOTAL BUDGET (=B + C)</b>	<b>\$ 5,806,866</b>	<b>\$ 5,448,623</b>	<b>\$ (358,243)</b>	<b>\$ 5,293,298</b>	<b>\$ (513,568)</b>	<b>\$ 5,816,736</b>	<b>\$ (523,437)</b>
<b>FTEs</b>	<b>15.01</b>	<b>12.83</b>	<b>(2.18)</b>	<b>12.22</b>	<b>(2.79)</b>	<b>13.37</b>	<b>(1.15)</b>



## Reliability Assessment and Performance Analysis

Reliability Assessments and Performance Analysis (in whole dollars)					
	2015 Budget	2016 Budget	Increase (Decrease)	2016 Budget - Prior Draft	Variance to Prior Draft Over(Under)
Total FTEs	19.70	18.67	(1.03)	19.59	(0.92)
Direct Expenses	\$ 5,456,456	\$ 5,616,840	\$ 160,384	\$ 5,827,097	\$ (210,258)
Indirect Expenses	\$ 4,149,598	\$ 4,396,749	\$ 247,152	\$ 4,665,318	\$ (268,569)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 219,696	\$ (94,860)	\$ (314,556)	\$ (77,566)	\$ (17,295)
TOTAL BUDGET	\$ 9,825,750	\$ 9,918,728	\$ 92,978	\$ 10,414,850	\$ (496,122)

### 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. These assessments are used to provide insight and guidance about reliability risks and performance improvements as well as reliability performance issues and areas of concern (including equipment performance and related reliability issues). These insights provide a foundation for the development of new Reliability Standards or modifications to mandatory Reliability Standards, or other initiatives, such as guidelines, alert(s), webinars, etc., all focused on enhancing overall reliability. The department focuses on developing a technical framework and understanding the reliability risks facing the industry. It also provides guidance and insights to stakeholders across North America. The department relies on its own engineering and analysis expertise, as well as Regional Entity and stakeholder resources. RAPA is responsible for:

- Independent assessments and reports on the overall reliability and adequacy of the BPS and associated reliability risks that could impact the short-term and the long-term (e.g., 10-year) planning horizon.
- Development of focused reliability assessments based on emerging reliability risks (e.g., emerging environmental regulations) and other reliability issues garnering an in-depth analysis.
- Performance analysis and recommendations of historical reliability and associated trends, relying on data integrity and consistent method, supporting credible recommendations and guidance.
- Reliability assessment and bulk system evaluation model and case development for analyzing steady-state and dynamic conditions, including frequency, Essential Reliability Services, and stability aspects.
- Assurance oversight that electrical elements necessary for the reliable operation of the BPS are appropriately identified as BES elements.
- Reliability risk program management for identifying and improving key risk areas using analyses of reliability gaps, risks, controls, and management efforts, as well as integration with the Reliability Issues Steering Committee (RISC), long-term reliability assessment, short-term (seasonal) reliability assessments, and state of reliability reports.
- Management 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.

- Establishment of reliability 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 entities, and state, federal, and provincial policy makers. 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**

RAPA focuses its efforts in the following key areas:

#### **Reliability Risk: Analysis and Management**

Reliability Risk analysis and management efforts involve wide-ranging concerted efforts among stakeholders, RISC members, functional groups within NERC, and the Regional Entities.

**Analysis:** A comprehensive understanding of complex interdependencies and their wide-ranging impacts affecting BES reliability requires deliberate and methodical risk analysis and control strategies. A robust approach that identifies emerging reliability risks, prioritizes those with significant potential impact, and seeks to address them across the ERO Enterprise is essential for ensuring effective BES reliability. NERC's approach to identifying these reliability risks and implementing appropriate mitigation or management efforts is based on strong expertise and fundamental technical analysis of reliability behavior, leveraging reliability assessments, performance analysis, and event analyses, the use of the RISC to provide guidance about strategic risks and priorities, and effective management/mitigation steps across industry.

This comprehensive approach represents an important aspect demonstrating the link between NERC's activities and its mission of ensuring the reliability of the North American BES. Specific areas of reliability risk have been identified for projects in 2016. 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.

**Management:** 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 2015 into eight project areas focused on managing the top-priority reliability risks. Each risk management program area 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 2015 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 2016 priority risk projects. For budget assumption purposes, NERC has planned for a comparable level of effort to be allocated across 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 the efficiency and effectiveness of the ERO.

**Reliability Risk Management Programs:** These programs reflect the culmination of risk identification and reliability management aspects. NERC staff worked with the RISC to support determination of Reliability Risk Priorities that were presented to the Board in late 2014, and ensured that both reliability risk and associated reliability risk management projects are reflected in ERO business planning activities. These program areas and projects have been refined to identify specific reliability risks, associated measurements, and the most critical aspects within those broad areas that should be addressed. The overall strategies for managing the risks include the use of guidelines, information requests, training, NERC Alerts, technical conferences, research, standards, and other tools. The results are weighed for overall effectiveness and efficiency, and each project plan 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 selected by NERC based on guidance from many sources, including the Board and the RISC. Each program has associated projects that are supported by various NERC departments as listed after each project.

**Program: Changing Resource Mix**

The energy currently produced by large rotating generators is being replaced by energy produced in different locations by variable resources, demand response programs, and other new types of resources. These resources exhibit different characteristics with respect to some of the less-obvious fundamental components of reliable operation (e.g., inertia, frequency response, generator output maneuverability). Operationally, uncertainty concerning the commitment of demand-side resources to meet load obligations and the lack of visibility of demand-side resources once committed presents a scheduling risk to operators in real time. At the same time, continuing improvements in smart grid technologies, energy efficiency, and other changes in load composition impact characteristics and behavior of load, reactive power needs, and how the system operates and behaves during disturbances (e.g., fault-induced delayed voltage recovery). All of these changes move the system toward different behaviors, operating characteristics, and levels of reliability risk. An increased penetration of natural-gas-fired generation has also increased NERC's concern on gas-electric interdependencies. The increasing amount of gas-fired generation exposes vulnerabilities on the gas pipeline system.

- Project: Essential Reliability Services Special Assessment Phase 2 – RAPA
- Project: Development of Standardized Models – RAPA

- Project: Support for IEEE 1547 Standard for Interconnecting Distributed Resources with Electric Power Systems – RAPA
- Project: Load Composition Modeling Analysis – RAPA
- Project: Gas-Electric Interdependencies and Infrastructure Assessment – RAPA

**Program: Risks in Resource Planning**

Environmental regulations, increased uncertainty in future resources due to other potential 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 of new plants. Specifically, continued expansion of environmental regulations—including CO<sub>2</sub> regulations and other regulations targeting water usage by generators—greatly increases this risk. 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 apply 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.

- Project: Environmental Regulations Special Assessment – RAPA

**Program: Protection System Reliability**

Protection Systems serve a vital role in defense against system disturbances. When Protection System components fail, the order of execution can result in either incorrect elements being removed from service, or more elements being removed than necessary. Failures to trip and slow trips can result in damaged equipment, which may result in degraded reliability for an extended period of time. NERC’s annual state of reliability reports have consistently concluded that Protection System Misoperations are a significant contributor to disturbance events and increase the severity of automatic transmission outages.

- Project: Protection System Reliability Analysis – RAPA
- Project: System Protection Initiative – RAPA

**Program: Protection System Misoperations**

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.

- Project: Protection System Guidelines – RAPA
- Project: Analysis of Protection System Misoperations – RAPA
- Project: System Protection Initiative – RAPA
- Project: Protection System Education – RRM

**Program: Uncoordinated Protection Systems**

When Protection System components 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.

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

**Program: Extreme Physical Events**

Severe weather events (e.g., hurricanes, tornadoes, polar vortices, GMDs, etc.) and coordinated sabotage attacks (e.g., localized physical attacks of significance or EMPs) are physical events that, at the extreme, can cause extensive interconnection-wide equipment damage, fuel limitations, and disruptions of telecommunications. Because of the long time involved in manufacturing and replacing some BPS assets, an extreme physical event that causes extensive damage to equipment could result in degraded reliability for an extended period of time. While isolated, local physical events have a higher probability of occurrence, the likelihood of extensive, interconnection-wide events is low. However, the potential consequences of such an event are high enough that additional focus is needed to properly address this risk. While additional facilities could be one mitigation measure, permitting, siting, and construction of additional facilities will require long lead times for implementation.

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

**Program: Availability of Real-Time Tools and Monitoring**

NERC has analyzed data and identified that outages of tools and monitoring systems are fairly common occurrences. Functional capabilities impacted by this risk include perceiving and comprehending the information provided by decision-support tools, information sharing, coordination of models, and planning across seams. Less-than-adequate situational awareness has the potential for significant negative reliability consequences and is often a precursor event or contributor to events. Additionally, insufficient communication and data regarding neighboring entities' operations is also a latent risk that could result in invalid assumptions of another system's behavior or state.

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

**Program: Right-of-Way Clearances**

The failure to maintain transmission rights of way contributes to vegetation and other clearance-related outages. Another latent reliability risk, highlighted by the 2010 *Facility Ratings Alert* to industry, involved the misalignment between the design and actual construction of BPS facilities. Reports from various entities have indicated that in a number of cases, actual conductor-to-ground 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, cascading, instability, or separation.

- Project: Right-of-Way Entity Visit Evaluations – Compliance Assurance

Overall, the resources expected to be deployed to address these reliability risk projects would be similar for 2016 to the comparable level of effort devoted to these efforts in 2015. 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 2016. As the RISC and ERO continue to refine the efforts to establish a multiyear perspective addressing the key reliability initiatives, the specific projects and goals for 2016 (and potentially into 2017 and 2018)

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 2015 would remain generally consistent with the levels expected in subsequent years.

### **Performance Analysis**

Performance Analysis collects transmission outage, generator performance, and demand response data in a common format using the various industry databases. This data is used to develop and report on transmission metrics that analyze outage frequency, duration, causes, and many other factors related to transmission outages and generator performance. In addition to collecting simple equipment availability, detailed information about individual outage events is collected that, when analyzed at the regional and NERC levels, provides data that may be used to improve BES reliability.

The key trends, findings, and recommendations from Performance 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 provides an industry reference for historical BES reliability, but it also offers analytical insights that lead toward the prioritization of specific actionable risk control steps for industry. These analyses and results are summarized in the annual state of reliability report, which provides guidance and recommendations leading to enhanced bulk system reliability.

Performance Analysis is working with Event Analysis to develop a link between their various databases. Specific equipment outages will be linked to disturbance reports filed with NERC, enabling better association of transmission and generation outages. The continued alignment between these efforts is expected to enhance the ability to conduct effective event analyses as well as identify key reliability areas for trend analysis of multiple databases. This is expected to improve the depth of event analyses across the ERO Enterprise and expand the quality of data gathered for sophisticated statistical and probabilistic analyses. This will lead to trends and insights about reliability performance, as well as effective measures and actions to address reliability risks.

### **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 the short-term (12- to 18-month outlook). 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 BPS. These analyses provide a technical platform for important policy discussions on challenges facing the interconnected BES, as well as focused recommendations that improve overall reliability or lessen reliability risks.

Each year, NERC is responsible for assessing and reporting on the reliability, adequacy, and associated risks that could impact the short-term and the long-term study periods. 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 approaches.

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. These efforts are expected to expand to reflect the changing resource mix, reliability behavior of resources, and loads. It will include greater focus on probabilistic approaches to conducting assessments as well as focusing seasonal assessments on a short-term horizon to encompass more than peak condition reserve margin analyses.

Key assessments include:

- Long-Term Reliability Assessment (supplemented by the Probabilistic Assessment conducted biennially)
- Summer and Winter (or Short-Term) Reliability Assessments
- Special and Scenario Reliability Assessments

Key Special Assessments in 2016 are expected to include:

- Special Assessment of Reliability Implications of EPA CPP Final Rule (Phase II)
- Comprehensive Essential Reliability Services Assessment

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

A significant ongoing effort anticipated to involve both RAPA, Regional Entity staff, and stakeholders focuses on the continued development of effective Essential Reliability Services. These efforts are expected to lead to a broad set of recommendations that will culminate with defined Essential Reliability Services elements, an evaluation of initial metrics and data compilation of actual performance, and refinement about the ongoing assessment of Essential Reliability Services measures. These recommendations are expected to drive a variety of modifications to the reliability assessment activities, the performance analysis efforts, the system analysis efforts, and potential other related adaptations to reflect the significantly changing resource mix and load reliability behavior.

### **System Analysis**

Understanding the technical behavior of the North American grid is the foundation for identifying crucial aspects of performance that are important for sustaining overall reliability. NERC's understanding of grid behavior is achieved through a comprehensive evaluation of system behavior through constant observation and study, analytic simulations, and forensic analysis of system disturbances. Methodically comparing the results of analytical powerflow and dynamics simulations to actual system behavior enables RAPA to gain insights to enhance predictive system analysis. These insights also establish the framework and foundation for recommendations to improve operating strategies that enhance the performance and reliability of the electric system.

Key Programs:

- Modeling Initiative
  - Improve dynamics
  - Develop quality and fidelity metrics
  - Collaboration with IEEE
- Frequency Response Assessment and Interconnection Frequency Response Obligation Analysis
  - Support BAL-003 and ALR 1-12
- PMU Measurement and Use Improvements

- Interconnection-Wide Model Building Designation and Criteria Administration
- Analysis of TPL Footnote 12
  - Report to FERC on utilization
- BES Exception and Self-Determined Notification Processing
- Model Building Selection and Designation

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 long-term 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 starting in late 2016; and wind generator availability information (GADS) is being initiated in 2015 such that data gathering begins in the 2016 time frame. In 2015, RAPA will refine the composition of NERC’s annual state of reliability report to expand the GADS data trend analysis, and for 2016 begin 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 Department of Energy (DOE), the Institute of Electrical and Electronic Engineers (IEEE), the Institute of Nuclear Power Operations (INPO), 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. NERC anticipates executing in mid-2015 a series of memoranda of understandings with IEEE, NRC, INPO, and DOE regarding collaboration and essential alignment of respective efforts that would be expected to effectuated through concentrated work plan efforts starting in 2016.

### **BES Definition Implementation**

During 2014, RAPA was closely involved in the development of a revised definition for BES. RAPA also worked closely with the Regional Entities to develop a software application to manage the implementation of the revised BES definition and exception process, associated business processes, and guidance supporting the implementation of the BES tool. The BES tool, by which a registered entity submits self-determined notifications or requests for exception of certain elements from the BES, 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 by the end of 2015, the majority of the entity applications of the BES definition to their respective systems would be essentially complete, and that for 2016 and beyond, the level of reviews and assessments would reach steady state as a result of ongoing changes and modifications to the BES network and elements. The reviews, evaluations, and confirmations of proposed changes to BES elements by registered entities will continue to take place during 2016. This will involve both NERC and Regional Entity resources to manage effective implementation. RAPA may contract outside experts to conduct technical reviews of BES exception requests.

### **Model-Building Entity Selection and Designation**



NERC has committed to selecting and designating the model-building entity for each interconnection by September 2015. As the designee, the entity will support creation of the interconnection-wide powerflow and dynamics cases that include all of the Planning Coordinators in the interconnection, so long as the entity continues to demonstrate, to NERC's satisfaction, the designee functions and attributes developed by the Modeling Project Task Force.

The ERAG/MMWG group will need to transition from a Regional Entity-funded model to a Planning Coordinator-funded model. However, the Planning Coordinators are only responsible for submitting their individual system models to NERC—not for assembling the model. Assembly of the model is currently performed by Powertech, which is funded by the Regional Entities in the Eastern Interconnection at approximately \$400k.

## 2016 Goals and Deliverables

In 2016, 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 (including the verification and validation of data and information through Regional Entities and technical committees as required).
  - a. One 10-year long-term reliability assessment
  - b. One short-term reliability assessment (covering both summer and winter, as well as shoulder periods)
  - c. Special assessments addressing key reliability risks (risk projects)
    - Essential Reliability Services Phase II
    - Phase II Special Reliability Assessment on the EPA Clean Power Plan
  - d. One annual state of reliability report
  - e. One frequency response analysis report (to FERC and to support BAL-003 and annual IFRO)
2. Oversee the Generating, Transmission, and Demand Response Availability Data Systems (GADS, TADS, and DADS), along with reliability metrics, misoperations, and the Spare Equipment Database.
  - a. Strengthen data collection and validation processes by designing, creating, testing, and implementing data-checking systems for reliability assessment, system analysis, and risk analysis.
  - b. Provide periodic updates on trends and measures of BES reliability.
3. Develop a risk registry and systematic prioritization process consistent with the RISC framework and support BES risk profile measurement and assessment of standards.
4. 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.
5. Support NERC Reliability Standard development and responses to FERC directives by providing technical and system analysis expertise.
6. Support the technical foundation development for Reliability Standards to address deficiencies or needs revealed by RAPA.
7. Advance NERC's analytical capability for identifying and determining reliability risks and conducting various reliability assessments.

- a. Integrate Essential Reliability Services analysis and measures into the long-term reliability assessment (include new data collection and analysis approaches needed to address assessment objectives of identifying reliability issues due to a changing resource mix).
  - b. Transmission/deliverability assessments and studies will require advanced powerflow and stability analysis tools.
  - c. Probabilistic assessments will require advanced statistical analysis tools.
8. Provide support and leadership to (1) the Planning Committee and (2) standing committees' subcommittees, working groups, and task forces serving the standing committees.
  9. Assist in the development of approaches to registration and provide input to NERC staff in support of the development CMEP risk elements. Input is based on reliability trends, risks, and historical performance information to ensure that the compliance focus remains on the most critical entities and associated Reliability Standards.
  10. Conduct major event investigations, analyses, and reporting of major findings, recommendations, and lessons learned that will improve reliability.
  11. Build and sustain an Enterprise RAPA team that encompasses risk-informed approaches and structured methods to identify and address reliability risks.
  12. 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.
  13. Designate, develop, and support interconnection-wide model-building groups. NERC may need to fund model-building work for the Eastern Interconnection; it is now completed by a contractor of ERAG (Powertech).
  14. Develop a structured approach to evaluate and improve system models, model validation, system analysis, and assessments. Align interconnection-wide modeling assessments with NERC's long-term reliability assessment.

#### **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 incorporate Essential Reliability Services measures within the long-term reliability assessment. 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 powerflow and dynamic modeling components to support industry's need for more accurate models. (RAPA)

#### **Project: Load Composition Modeling Analysis**

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

**Project: Model Validation Project**

The Reliability Initiatives and System Analysis team will work with stakeholders to improve the quality and fidelity of powerflow and dynamics analysis by validating both the modeling cases and the dynamics models of system elements using the NERC Modeling Validation Guidelines. (RAPA)

**Project: Frequency Response Initiative**

1. The Reliability Initiatives and System Analysis team will continue to annually calculate the Interconnection Frequency Response Obligations and Frequency Response Obligations for the Balancing Authorities in support of Standard BAL-003-1, Frequency Response and Frequency BIAS Setting. (RAPA)
2. The Reliability Initiatives and System Analysis team will continue to work with the Resource Subcommittee outreach team and the generator owners and operators to improve the frequency response of traditional generators. (RAPA)
3. The Reliability Initiatives and System Analysis team will work with the Resources Subcommittee, the Frequency Response Working Group, and the ERSTF and develop a guideline for frequency-responsive resource performance. This will entail collaboration with IEEE, NAGF, and other subject matter experts. (RAPA)

**Project: Support for IEEE 1547–Standard for Interconnecting Distributed Resources with Electric Power Systems**

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

**Project: Gas-Electric Interdependencies and Infrastructure Assessment**

The Reliability Assessments team will develop an assessment designed to analyze future risks to the BPS resulting from significant integration of gas-fired generation. (RAPA)

**Project: Environmental Regulations Special Assessment**

The Reliability Assessments team will continue NERC’s assessment strategy around the EPA’s Clean Power Plan. (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 Planning Committee (RAPA-RISA), the RISC, and the Standards Committee for development of ERO responses to address the findings of this analysis. (RAPA-RRM)

**Project: Guidelines for Coordination of Protection Systems and Other Devices**

The Reliability Initiatives and System Analysis team will work with stakeholders to leverage the existing body of work developed by NERC’s Special Protection and Control Subcommittee to seek industry comments to develop a guideline on appropriate approaches to coordinate transmission and generation protection systems. 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 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 Performance Improvements**

The Performance Analysis team will collaborate with industry to minimize setting errors, maintain microprocessor-based relay firmware, and apply power line carrier communication-aided protection. A number of potential approaches will be used, including site visits, webinars, guidelines, and lessons learned. (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**

Additional personnel (including open positions) were reallocated to RAPA from other departments to address increased resource demands associated with ongoing reliability assessment, performance analysis, and system analysis activities. The schedule of FTEs shows RAPA at a comparable level to 2015 due to the anticipated timing of new hires and the application of an increased vacancy rate across the whole organization.

**Contractor Expenses**

The total contractor and consultant expenses for the department are projected at \$1.1M, representing an approximate \$129k increase over the 2015 budget. The 2016 contractor and consulting resources are described below and are grouped into four categories. Further information is provided on Exhibit C.

1. Research and Initiative Implementation, Tracking, and Reporting
  - a. Reliability effects of GMD
  - b. Collaboration research with DOE
2. Special and Long-Term Assessments and State of Reliability Analysis
  - a. Scenario assessment consultants
  - b. EPA CPP assessment consultants
  - c. Essential Reliability Services assessment analyses consultants
  - d. Probabilistic assessments
3. Licensing and Support of Existing Databases
  - a. System analysis tools
    - o Powerflow model analysis tools
    - o Probabilistic loss-of-load analysis tool
    - o Security-constrained economic dispatch tool
  - b. Reliability Assessment Data System (NERC-RADS)

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 development of the Reliability Assessment Database applications.

Statement of Activities and Fixed Assets Expenditures							
2015 Budget & Projection, and 2016 Budget							
RELIABILITY ASSESSMENTS and PERFORMANCE ANALYSIS							
	2015 Budget	2015 Projection	Variance 2015 Projection v 2015 Budget Over(Under)	2016 Budget	Variance 2016 Budget v 2015 Budget Over(Under)	2016 Budget Draft 1	Variance to Prior Draft Over(Under)
<b>Funding</b>							
<b>ERO Funding</b>							
NERC Assessments	\$ 9,571,195	\$ 9,571,195	\$ -	\$ 9,626,497	\$ 55,302	\$ 10,209,260	\$ (582,763)
Penalty Sanctions	186,581	186,581	-	226,769	40,189	140,101	86,668
<b>Total NERC Funding</b>	<b>\$ 9,757,776</b>	<b>\$ 9,757,776</b>	<b>\$ -</b>	<b>\$ 9,853,266</b>	<b>\$ 95,491</b>	<b>\$ 10,349,361</b>	<b>\$ (496,094)</b>
Third-Party Funding	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-
Services & Software	50,000	50,000	-	50,000	-	50,000	-
Workshops	17,500	17,500	-	15,000	(2,500)	15,000	-
Interest	474	474	-	462	(12)	489	(27)
Miscellaneous	-	26	26	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 9,825,750</b>	<b>\$ 9,825,776</b>	<b>\$ 26</b>	<b>\$ 9,918,728</b>	<b>\$ 92,979</b>	<b>\$ 10,414,850</b>	<b>\$ (496,122)</b>
<b>Expenses</b>							
<b>Personnel Expenses</b>							
Salaries	\$ 2,833,480	\$ 2,789,268	\$ (44,212)	\$ 2,713,593	\$ (119,887)	\$ 2,879,571	(165,978)
Payroll Taxes	176,963	199,058	22,095	187,469	10,506	193,310	(5,840)
Benefits	356,502	319,588	(36,914)	340,119	(16,383)	349,129	(9,010)
Retirement Costs	317,664	269,958	(47,706)	301,588	(16,077)	321,491	(19,903)
<b>Total Personnel Expenses</b>	<b>\$ 3,684,609</b>	<b>\$ 3,577,872</b>	<b>\$ (106,737)</b>	<b>\$ 3,542,769</b>	<b>\$ (141,840)</b>	<b>\$ 3,743,500</b>	<b>(200,731)</b>
<b>Meeting Expenses</b>							
Meetings	\$ 90,018	\$ 74,679	\$ (15,339)	\$ 110,000	\$ 19,982	\$ 110,000	-
Travel	313,993	314,000	7	326,510	12,517	334,242	(7,732)
Conference Calls	31,500	27,000	(4,500)	27,000	(4,500)	27,000	-
<b>Total Meeting Expenses</b>	<b>\$ 435,511</b>	<b>\$ 415,679</b>	<b>\$ (19,832)</b>	<b>\$ 463,510</b>	<b>\$ 27,999</b>	<b>\$ 471,242</b>	<b>(7,732)</b>
<b>Operating Expenses</b>							
Consultants & Contracts	\$ 955,450	\$ 1,160,780	\$ 205,330	\$ 1,084,039	\$ 128,589	\$ 1,084,039	-
Office Rent	-	-	-	-	-	-	-
Office Costs	152,386	133,041	(19,345)	139,998	(12,388)	141,792	(1,795)
Professional Services	-	-	-	-	-	-	-
Miscellaneous	500	500	-	500	-	500	-
Depreciation	228,000	274,510	46,510	386,024	158,024	386,024	-
<b>Total Operating Expenses</b>	<b>\$ 1,336,336</b>	<b>\$ 1,568,831</b>	<b>\$ 232,495</b>	<b>\$ 1,610,561</b>	<b>\$ 274,225</b>	<b>\$ 1,612,355</b>	<b>\$ (1,795)</b>
<b>Total Direct Expenses</b>	<b>\$ 5,456,456</b>	<b>\$ 5,562,382</b>	<b>\$ 105,926</b>	<b>\$ 5,616,840</b>	<b>\$ 160,384</b>	<b>\$ 5,827,097</b>	<b>\$ (210,258)</b>
<b>Indirect Expenses</b>	<b>\$ 4,149,598</b>	<b>\$ 4,513,467</b>	<b>\$ 363,869</b>	<b>\$ 4,396,749</b>	<b>\$ 247,152</b>	<b>\$ 4,665,318</b>	<b>\$ (268,569)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 9,606,054</b>	<b>\$ 10,075,849</b>	<b>\$ 469,795</b>	<b>\$ 10,013,589</b>	<b>\$ 407,535</b>	<b>\$ 10,492,416</b>	<b>\$ (478,827)</b>
<b>Change in Assets</b>	<b>\$ 219,696</b>	<b>\$ (250,073)</b>	<b>\$ (469,770)</b>	<b>\$ (94,860)</b>	<b>\$ (314,556)</b>	<b>\$ (77,566)</b>	<b>(17,295)</b>
<b>Fixed Assets</b>							
Depreciation	(228,000)	(274,510)	(46,510)	(386,024)	(158,024)	(386,024)	-
Computer & Software CapEx	200,000	688,836	488,836	-	(200,000)	-	-
Furniture & Fixtures CapEx	-	-	-	-	-	-	-
Equipment CapEx	-	-	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-	-
Allocation of Fixed Assets	\$ 247,696	\$ 321,173	\$ 73,477	291,164	\$ 43,468	\$ 308,459	(17,295)
<b>Inc(Dec) in Fixed Assets (C)</b>	<b>\$ 219,696</b>	<b>\$ 735,499</b>	<b>\$ 515,803</b>	<b>\$ (94,860)</b>	<b>\$ (314,556)</b>	<b>\$ (77,566)</b>	<b>\$ -</b>
<b>TOTAL BUDGET (=B + C)</b>	<b>\$ 9,825,750</b>	<b>\$ 10,811,348</b>	<b>\$ 985,599</b>	<b>\$ 9,918,728</b>	<b>\$ 92,979</b>	<b>\$ 10,414,850</b>	<b>\$ (496,122)</b>
<b>FTEs</b>	<b>19.70</b>	<b>19.56</b>	<b>(0.14)</b>	<b>18.67</b>	<b>(1.03)</b>	<b>19.59</b>	<b>(0.92)</b>

## 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: Situation Awareness (also referred to as Bulk Power System Awareness) and 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)				
	2015 Budget	2016 Budget	Increase (Decrease)	2016 Budget - Prior Draft	Variance to Prior Draft Over(Under)
Total FTEs	6.10	5.53	(0.57)	5.53	-
Direct Expenses	\$ 2,446,801	\$ 2,310,875	\$ (135,926)	\$ 2,309,418	\$ 1,457
Indirect Expenses	\$ 1,284,901	\$ 1,302,775	\$ 17,875	\$ 1,317,266	\$ (14,491)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	(84,800)	78,547	163,346	79,368	(821)
TOTAL BUDGET	\$ 3,646,902	\$ 3,692,197	\$ 45,295	\$ 3,706,052	\$ (13,855)

### Background and Scope

NERC’s Situation Awareness department and the eight Regional Entities monitor BES conditions, significant occurrences and emerging risks, and threats across the 14 Reliability Coordinator regions in North America to maintain an understanding of conditions and situations that could impact the bulk electric system’s reliable operation. This group also supports the development and publication of Alerts and awareness products and facilitates information sharing among industry, Regions, and the government during crisis situations and major system disturbances. The process for understanding the potential threats or vulnerabilities to the reliability of the BPS starts with understanding occurrences and events in the context in which they occur.

### Stakeholder Engagement and Benefit

BES conditions continually change and provide recognizable signatures through automated tools, mandatory reports and voluntary information sharing, and third-party publicly available sources. The significant majority of these signatures represents conditions and occurrences that have little or no reliability impact, either positive or adverse, on the BES. However, being cognizant of the short-term condition of the BES and the signatures associated with the entire range of reliability performance helps the ERO identify significant occurrences and events more accurately and efficiently. Registered entities continue to robustly share information and collaborate with the ERO in an effort to maintain and improve the overall reliability of the grid.

### **Key Efforts Underway**

Several reliability-related situation awareness and monitoring tools will undergo enhancement, replacement, streamlining, or modification. The following tools are being focused on during 2015: (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) retirement of NERCnet (Frame Relay Contract) – Interconnection Security Network (ISN) and initiation of service, using a new communication network developed, sponsored, and managed by the Eastern Interconnection Data Sharing Network consortium.

### **2016 Goals and Deliverables**

In 2016, the Situation Awareness department will seek to accomplish the following specific goals and deliverables:

1. Ensure that the ERO is aware of all BES events above a threshold of impact.
2. Enable 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 the 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. Administer the NERC Alerts process as specified in ROP §810 to issue Advisory (Level 1) Alerts on significant and emerging reliability- and security-related topics as needed, and facilitate the tracking of actions specified in Recommendation (Level 2) and Essential Action (Level 3) Alerts.

The department uses 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<sup>26</sup> 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.

#### 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.

#### Genscape

The PowerIQ and PowerRT tools provide more detailed insight into current-day conditions impacting BPS conditions in both normal operations and stressed conditions.

### **Resource Requirements**

#### **Personnel**

No additional personnel are projected for the Situation Awareness department in 2016.

#### **Contractor Expenses**

The overall funding of approximately \$1.2M for contractors and consultants (which includes the cost of the tools set forth above) to support the Situation Awareness department in 2016 represents a slight increase over 2015 budget levels. The detailed 2016 contractor and consulting budget for the Situation Awareness department is set forth in Exhibit C with a comparison to 2015 budgeted amounts.

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<sup>26</sup> FNet – Operated by the Power Information Technology Laboratory at the University of Tennessee, FNET is a low-cost, quickly deployable global positioning system (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.



Section A — 2016 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Assets Expenditures 2015 Budget & Projection, and 2016 Budget

SITUATION AWARENESS

	2015 Budget	2015 Projection	Variance 2015 Projection v 2015 Budget Over(Under)	2016 Budget	Variance 2016 Budget v 2015 Budget Over(Under)	2015 Budget Draft 1	Variance to Prior Draft Over(Under)
<b>Funding</b>							
<b>ERO Funding</b>							
NERC Assessments	\$ 3,588,981	3,588,981	\$ -	\$ 3,624,868	\$ 35,887	\$ 3,666,356	\$ (41,488)
Penalty Sanctions	57,774	57,774	-	67,193	9,419	39,558	27,635
<b>Total NERC Funding</b>	<b>\$ 3,646,755</b>	<b>\$ 3,646,755</b>	<b>\$ -</b>	<b>\$ 3,692,060</b>	<b>\$ 45,305</b>	<b>\$ 3,705,914</b>	<b>\$ (13,853)</b>
Third-Party Funding	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-
Workshops	-	-	-	-	-	-	-
Interest	147	147	0	137	(10)	138	(1)
Miscellaneous	-	8	8	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 3,646,902</b>	<b>\$ 3,646,910</b>	<b>\$ 8</b>	<b>\$ 3,692,197</b>	<b>\$ 45,295</b>	<b>\$ 3,706,052</b>	<b>\$ (13,855)</b>
<b>Expenses</b>							
<b>Personnel Expenses</b>							
Salaries	\$ 849,802	\$ 779,928	\$ (69,874)	\$ 764,342	\$ (85,460)	\$ 764,342	-
Payroll Taxes	55,831	59,674	3,843	58,235	2,404	58,235	-
Benefits	112,106	99,038	(13,068)	101,765	(10,341)	100,493	1,272
Retirement Costs	95,226	80,002	(15,224)	85,275	(9,951)	85,123	152
<b>Total Personnel Expenses</b>	<b>\$ 1,112,965</b>	<b>\$ 1,018,642</b>	<b>\$ (94,323)</b>	<b>\$ 1,009,617</b>	<b>\$ (103,349)</b>	<b>\$ 1,008,192</b>	<b>1,424</b>
<b>Meeting Expenses</b>							
Meetings	\$ 5,000	\$ 5,000	\$ -	\$ 6,500	\$ 1,500	\$ 6,500	-
Travel	45,882	45,000	(882)	33,005	(12,877)	32,972	33
Conference Calls	2,610	1,000	(1,610)	1,000	(1,610)	1,000	-
<b>Total Meeting Expenses</b>	<b>\$ 53,492</b>	<b>\$ 51,000</b>	<b>\$ (2,492)</b>	<b>\$ 40,505</b>	<b>\$ (12,987)</b>	<b>\$ 40,472</b>	<b>33</b>
<b>Operating Expenses</b>							
Consultants & Contracts	\$ 1,077,321	\$ 1,417,589	\$ 340,268	\$ 1,211,475	\$ 134,154	\$ 1,211,475	-
Office Rent	-	-	-	-	-	-	-
Office Costs	41,025	41,000	(25)	41,052	27	41,052	-
Professional Services	-	-	-	-	-	-	-
Miscellaneous	500	500	-	500	-	500	-
Depreciation	161,498	7,107	(154,390)	7,727	(153,771)	7,727	-
<b>Total Operating Expenses</b>	<b>\$ 1,280,343</b>	<b>\$ 1,466,196</b>	<b>\$ 185,853</b>	<b>\$ 1,260,754</b>	<b>\$ (19,590)</b>	<b>\$ 1,260,754</b>	<b>\$ -</b>
<b>Total Direct Expenses</b>	<b>\$ 2,446,801</b>	<b>\$ 2,535,838</b>	<b>\$ 89,038</b>	<b>\$ 2,310,875</b>	<b>\$ (135,926)</b>	<b>\$ 2,309,418</b>	<b>\$ 1,457</b>
<b>Indirect Expenses</b>	<b>\$ 1,284,901</b>	<b>\$ 1,319,889</b>	<b>\$ 34,988</b>	<b>\$ 1,302,775</b>	<b>\$ 17,875</b>	<b>\$ 1,317,266</b>	<b>\$ (14,491)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 3,731,701</b>	<b>\$ 3,855,727</b>	<b>\$ 124,026</b>	<b>\$ 3,613,650</b>	<b>\$ (118,051)</b>	<b>\$ 3,626,684</b>	<b>\$ (13,034)</b>
<b>Change in Assets</b>	<b>\$ (84,800)</b>	<b>\$ (208,818)</b>	<b>\$ (124,018)</b>	<b>\$ 78,547</b>	<b>\$ 163,346</b>	<b>\$ 79,368</b>	<b>(821)</b>
<b>Fixed Assets</b>							
Depreciation	(161,498)	(7,107)	154,390	(7,727)	153,771	(7,727)	-
Computer & Software CapEx	-	23,000	23,000	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-	-	-
Equipment CapEx	-	-	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-	-
Allocation of Fixed Assets	\$ 76,698	\$ 93,922	17,224	86,273	9,575	\$ 87,094	(821)
<b>Inc(Dec) in Fixed Assets (C)</b>	<b>\$ (84,800)</b>	<b>\$ 109,815</b>	<b>\$ 194,614</b>	<b>\$ 78,547</b>	<b>\$ 163,346</b>	<b>\$ 79,368</b>	<b>\$ -</b>
<b>TOTAL BUDGET (=B + C)</b>	<b>\$ 3,646,902</b>	<b>\$ 3,965,542</b>	<b>\$ 318,640</b>	<b>\$ 3,692,197</b>	<b>\$ 45,295</b>	<b>\$ 3,706,052</b>	<b>\$ (13,855)</b>
<b>FTEs</b>	<b>6.10</b>	<b>5.72</b>	<b>(0.38)</b>	<b>5.53</b>	<b>(0.57)</b>	<b>5.53</b>	<b>-</b>

## Event Analysis Department

Event Analysis (in whole dollars)					
	2015 Budget	2016 Budget	Increase (Decrease)	2016 Budget - Prior Draft	Variance to Prior Draft Over(Under)
Total FTEs	9.38	11.06	1.68	11.06	-
Direct Expenses	\$ 2,303,098	\$ 2,650,065	\$ 346,968	\$ 2,639,231	\$ 10,834
Indirect Expenses	\$ 1,975,798	\$ 2,605,551	\$ 629,753	\$ 2,634,533	\$ (28,982)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ (75,728)	\$ 100,179	\$ 175,907	\$ 101,821	\$ (1,642)
<b>TOTAL BUDGET</b>	\$ 4,203,169	\$ 5,355,795	\$ 1,152,626	\$ 5,375,585	\$ (19,790)

### 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 ensures 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.

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 and 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, and others.

### 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.<sup>27</sup> The ERO disseminates to the electric industry lessons learned and other useful information obtained from or as a result of event analysis. The Event Analysis team conducts in-depth analyses of approximately 150 events per year on average. In 2014, the team also conducted calls facilitated by the Regional Entities with over 140 registered entities to discuss in detail and finalize root and contributing causes for the categorized events analyzed. Major analysis to date includes continuing assessment of Energy Management System (EMS) outages, publication of an Advisory Alert regarding the importance of Distributed Control System settings to generator governor frequency response, and analyses of substation equipment failure trends and ground overcurrent relay misoperations.

### 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

<sup>27</sup> The core process for Event Analysis is outlined in the Board-approved process: Electric Reliability Organization Event Analysis Process - Version 2 (July 2013).

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.

NERC is supporting the NAGF's ongoing transformation into a more formal structure through 2016 and continuing through 2018 with logistical and administrative support directly furthering NAGF's goals and business plan.

NATF has been invited to participate in several reliability initiatives that are expected to continue into 2016, including 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.

## **2016 Goals and Deliverables**

In 2016, the Event Analysis department will seek to accomplish several specific goals and objectives as part of the strategic focus of the ERO Enterprise:

- Work with the Regional Entities to obtain and review information from registered entities on qualifying events and disturbances 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.
- Ensure that all reportable events are analyzed for sequence of events, root cause, risk to reliability, and mitigation.
- Continue to refine risk-based methods to support better identification of reliability risks, including the use of more sophisticated cause codes for analysis.
- Ensure consistency in reporting and analysis to support wide-area assessments of significant reliability trends and risks.
- Conduct training (webinars, workshops, and conference support) to inform industry and the ERO of lessons learned, root cause analysis, trends, human performance, and cold weather preparedness and recommendations.
- Develop reliability recommendations and alerts as needed.
- Track industry accountability for critical reliability recommendations.
- Ensure that industry is well informed of system events, emerging trends, risk analysis, lessons learned, and expected actions.
- Conduct major event analysis and reporting of major findings and recommendations that will improve reliability.
- 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 2016 through 2017, as identified and described under the Reliability Assessment and Performance Analysis department section of this document.

## **Resource Requirements**

### **Personnel**

Additional resources were allocated to the department in 2015 to support increased work load. No additional personnel are planned to be added to the Event Analysis department in 2016.

**Contractor Expenses**

The overall funding of \$56k for contractors and consultants to support the Event Analysis department in 2016 represents an increase over 2015 since the department did not have any budgeted contractor and consulting funds in 2015. This modest addition will augment internal capabilities and capacity in the areas of substation equipment, protection systems, and data analysis. The detailed 2016 contractor and consulting budget for the Event Analysis department is set forth in Exhibit C, together with a comparison to 2015 budgeted amounts.

Statement of Activities and Fixed Assets Expenditures 2015 Budget & Projection, and 2016 Budget							
EVENT ANALYSIS							
	2015 Budget	2015 Projection	Variance 2015 Projection v 2015 Budget Over(Under)	2016 Budget	Variance 2016 Budget v 2015 Budget Over(Under)	2016 Budget Draft 1	Variance to Prior Draft Over(Under)
<b>Funding</b>							
<b>ERO Funding</b>							
NERC Assessments	\$ 4,066,804	\$ 4,066,804	\$ -	\$ 5,181,136	\$ 1,114,332	\$ 5,256,193	\$ (75,057)
Penalty Sanctions	88,839	88,839	-	134,385	45,546	79,116	55,269
<b>Total NERC Funding</b>	<b>\$ 4,155,643</b>	<b>\$ 4,155,643</b>	<b>\$ -</b>	<b>\$ 5,315,521</b>	<b>\$ 1,159,878</b>	<b>\$ 5,335,309</b>	<b>\$ (19,788)</b>
Third-Party Funding	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-
Workshops	47,300	43,025	(4,275)	40,000	(7,300)	40,000	-
Interest	226	226	-	274	48	276	(3)
Miscellaneous	-	15	15	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 4,203,169</b>	<b>\$ 4,198,909</b>	<b>\$ (4,260)</b>	<b>\$ 5,355,795</b>	<b>\$ 1,152,626</b>	<b>\$ 5,375,585</b>	<b>\$ (19,790)</b>
<b>Expenses</b>							
<b>Personnel Expenses</b>							
Salaries	\$ 1,447,159	\$ 1,714,485	\$ 267,326	\$ 1,716,263	\$ 269,104	\$ 1,708,129	8,135
Payroll Taxes	92,831	113,761	20,930	114,132	21,301	113,987	145
Benefits	173,284	196,077	22,793	202,259	28,975	200,987	1,272
Retirement Costs	162,193	174,304	12,111	191,377	29,183	190,248	1,128
<b>Total Personnel Expenses</b>	<b>\$ 1,875,467</b>	<b>\$ 2,198,627</b>	<b>\$ 323,160</b>	<b>\$ 2,224,030</b>	<b>\$ 348,563</b>	<b>\$ 2,213,350</b>	<b>10,680</b>
<b>Meeting Expenses</b>							
Meetings	\$ 79,228	\$ 134,228	\$ 55,000	\$ 81,500	\$ 2,272	\$ 81,500	-
Travel	114,500	124,790	10,290	152,487	37,987	152,333	154
Conference Calls	10,000	10,000	-	14,000	4,000	14,000	-
<b>Total Meeting Expenses</b>	<b>\$ 203,728</b>	<b>\$ 269,018</b>	<b>\$ 65,290</b>	<b>\$ 247,987</b>	<b>\$ 44,259</b>	<b>\$ 247,833</b>	<b>154</b>
<b>Operating Expenses</b>							
Consultants & Contracts	\$ -	\$ -	\$ -	\$ 56,000	\$ 56,000	\$ 56,000	-
Office Rent	-	-	-	-	-	-	-
Office Costs	29,736	47,156	17,419	49,181	19,445	49,181	-
Professional Services	-	-	-	-	-	-	-
Miscellaneous	500	500	-	500	-	500	-
Depreciation	193,667	193,667	0	72,367	(121,299)	72,367	-
<b>Total Operating Expenses</b>	<b>\$ 223,903</b>	<b>\$ 241,322</b>	<b>\$ 17,419</b>	<b>\$ 178,048</b>	<b>\$ (45,855)</b>	<b>\$ 178,048</b>	<b>\$ -</b>
<b>Total Direct Expenses</b>	<b>\$ 2,303,098</b>	<b>\$ 2,708,967</b>	<b>\$ 405,869</b>	<b>\$ 2,650,065</b>	<b>\$ 346,967</b>	<b>\$ 2,639,231</b>	<b>\$ 10,834</b>
<b>Indirect Expenses</b>	<b>\$ 1,975,798</b>	<b>\$ 2,612,088</b>	<b>\$ 636,290</b>	<b>\$ 2,605,551</b>	<b>\$ 629,753</b>	<b>\$ 2,634,533</b>	<b>\$ (28,982)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 4,278,897</b>	<b>\$ 5,321,055</b>	<b>\$ 1,042,159</b>	<b>\$ 5,255,616</b>	<b>\$ 976,719</b>	<b>\$ 5,273,764</b>	<b>\$ (18,148)</b>
<b>Change in Assets</b>	<b>\$ (75,728)</b>	<b>\$ (1,122,146)</b>	<b>\$ (1,046,418)</b>	<b>\$ 100,179</b>	<b>\$ 175,907</b>	<b>\$ 101,821</b>	<b>\$ (1,642)</b>
<b>Fixed Assets</b>							
Depreciation	(193,667)	(193,667)	(0)	(72,367)	121,299	(72,367)	-
Computer & Software CapEx	-	217,102	217,102	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-	-	-
Equipment CapEx	-	-	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-	-
Allocation of Fixed Assets	\$ 117,939	\$ 185,873	67,935	172,546	54,608	\$ 174,189	(1,642)
<b>Inc(Dec) in Fixed Assets ( C )</b>	<b>\$ (75,728)</b>	<b>\$ 209,308</b>	<b>\$ 285,036</b>	<b>\$ 100,179</b>	<b>\$ 175,907</b>	<b>\$ 101,821</b>	<b>\$ (1,642)</b>
<b>TOTAL BUDGET (=B + C)</b>	<b>\$ 4,203,169</b>	<b>\$ 5,530,364</b>	<b>\$ 1,327,195</b>	<b>\$ 5,355,795</b>	<b>\$ 1,152,626</b>	<b>\$ 5,375,585</b>	<b>\$ (19,790)</b>
<b>FTEs</b>	<b>9.38</b>	<b>11.32</b>	<b>1.94</b>	<b>11.06</b>	<b>1.68</b>	<b>11.06</b>	<b>-</b>

## Electricity Sector Information Sharing and Analysis Center (ES-ISAC)<sup>28</sup>

	ES-ISAC (in whole dollars)		Increase (Decrease)	2016 Budget - Prior Draft	Variance to Prior Draft Over(Under)
	2015 Budget	2016 Budget			
Total FTEs	18.76	18.90	0.14	18.44	0.46
Direct Expenses	\$ 14,078,643	\$ 11,965,349	\$ (2,113,294)	\$ 13,599,920	\$ (1,634,570)
Indirect Expenses	\$ 3,951,596	\$ 4,450,914	\$ 499,317	\$ 4,390,888	\$ 60,026
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 335,877	\$ 351,262	\$ 15,385	\$ 246,825	\$ 104,437
TOTAL BUDGET	\$ 18,366,117	\$ 16,767,525	\$ (1,598,592)	\$ 18,237,633	\$ (1,470,108)

### Background and Scope

The ES-ISAC was formed in 1998 when the U.S. Secretary of Energy requested that NERC serve as the ISAC<sup>29</sup> for the electricity sub-sector.<sup>30</sup> 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 methods and tools to avoid or mitigate the potential impact from these threats. ES-ISAC facilitates sector coordination regarding physical security and cybersecurity events affecting the BES.

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 directly benefits stakeholders by:

- Serving as a central coordination hub for electricity sector cyber and physical risk and security information sharing and sector coordination support.
- Sharing information derived (declassified format) from classified threat and security vulnerability briefings that is otherwise not generally available.
- Enhancing industry initiated security assessments and capabilities through information sharing.
- Helping to improve the security of the BES and electric sector.

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 ability to receive unattributed reports to increase information reporting.

<sup>28</sup> In 2015, NERC combined its Critical Infrastructure Department (CID) into the ES-ISAC for both operational and financial reporting purposes.

<sup>29</sup> 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.

<sup>30</sup> 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.

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 share this information with industry improves the security of the electric sector.

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 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.

The department also supports an annual grid security conference (GridSecCon) and a biennial Grid Security Exercise (Grid-X). ES-ISAC staff also works with industry and governmental entities to examine critical infrastructure protection policy issues and provides staff-level support to NERC's Critical Infrastructure Protection Committee, an industry-led committee comprised of industry experts in the areas of cybersecurity, physical and operational security.

### **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.<sup>31</sup> 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 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 other operating areas within NERC and having the ES-ISAC and the NERC chief security officer report directly to NERC's president and chief executive officer.
- Transferring critical infrastructure protection auditors to NERC's Compliance Assurance Department which provides oversight of Regional Entity compliance functions. In addition to removing these auditors from the same department as ES-ISAC personnel, this transfer provided better functional alignment among the auditors and more efficient management of the compliance oversight and audit assurance function.
- Finalizing 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

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<sup>31</sup> 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>

contains many of the principals incorporated in codes of conduct separating utility competitive and regulated operations.

- Exercising 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. The build out of this space was recently completed and the ES-ISAC operations and personnel are now physically separated from other NERC personnel.
- Establishing, in 2014, a separated secure cloud environment to house the ES-ISAC Portal was established. In 2015, a separate data facility for ES-ISAC IT infrastructure was installed, including segmented networking and server data infrastructure to provide business functions such as email, storage, and other IT needs. By Q4 2015, the ES-ISAC IT infrastructure will be physically, logically, and operationally separated from other NERC's other IT infrastructure.

Management is also continuing to enhance internal policies, procedures and training applicable to ES-ISAC operations, with particular emphasis on restrictions applicable to information sharing between ES-ISAC personnel and other NERC personnel.

### **Key Efforts Underway**

With industry support, senior management is committed to enhancing the effectiveness and capabilities of ES-ISAC operations. These efforts include ongoing enhancement in organizational structure, operational and analytical capabilities, as well as the development of metrics to track the effectiveness of operations. Management will also take steps to improve the quality and value of ES-ISAC products, including ongoing review of registered user needs.

During 2015, as part of a periodic review of companywide resource needs and resource allocation, NERC allocated additional resources support to the ES-ISAC. Management is recruiting personnel to fill open positions, and recruited and appointed a senior vice president and chief security officer in charge of ES-ISAC operations. Ongoing resources requirements consist primarily of personnel, contractors, consultants, software, hardware and communications infrastructure to gather, analyze, and provide information regarding cybersecurity threats.

In the fourth quarter of 2014 and with board industry support, NERC also assumed management responsibility for the Cyber Risk Information Sharing Program (CRISP). CRISP is a public-private partnership whose purpose is to facilitate the 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 critical infrastructure owners and operators the capability 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 (PNNL), which analyzes the data it receives and sends alerts and mitigation measures back to CRISP participants through secure communications. CRISP became fully operational in 2015. The ES-ISAC will continue to work with PNNL, CRISP participants and ES-ISAC registered users to strengthen program execution, including both quality and timeliness aspects of information sharing. Working closely with PNNL, NERC has developed a 2016 CRISP budget which has been distributed to the CRISP participants for review and approval. Pursuant to the terms of the CRISP participants agreements the vast majority of CRISP costs are funded by CRISP participants, with a portion of NERC's incremental internal budget be funded equally by CRISP participants and through assessments. The 2016 ES-ISAC budget maintains the same percentage allocation of CRISP funding requirements from assessments and from CRISP participants as 2015. In connection with the growth of the program and related support needs from ES-ISAC staff, the 2016 ES-ISAC budget also reflects



an increase in the number of budgeted ES-ISAC FTEs allocated to support CRISP. As the program grows in the future additional resources may be allocated to further support CRISP.

During 2015, the Electricity Sector Coordinating Council (ESCC)<sup>32</sup> initiated a strategic review of the ES-ISAC. The objective of this initiative was to gain a better understanding of the ES-ISAC operations and capabilities, benchmark these operations and capabilities against other ISACs (e.g. the financial services sector ISAC) and make recommendations regarding future enhancement in the ES-ISAC's operations and capabilities. This review has produced several initial key findings and recommendations ("ESSC Findings and Recommendations") for the ESSC membership which collectively support an overarching vision of the ES-ISAC becoming a leading, trusted source for the analysis and sharing of electricity security information. The ESSC Findings and Recommendations are intended to ensure that the ES-ISAC and associated collaborative activities within the subsector contribute to the building upon the capabilities of the ES-ISAC in support of this vision. NERC senior management is working with ESSC leadership to facilitate ongoing ESSC involvement in ES-ISAC strategic oversight.

The ESSC Findings and Recommendations will be reviewed at the August, 2015 MRC and NERC board meetings.

### **2016 Goals and Deliverables**

NERC's 2016 budget provides ongoing resource support for the ES-ISAC. This resource support is primarily directed to five areas:

1. Improving the usability and functionality of the information-sharing portal<sup>33</sup>.
2. Advancing information collection and analytical capabilities, portal monitoring, and information sharing.
3. Ongoing improvements in CRISP program management.
4. Enhancing industry engagement, including the identification of needs and expectations.
5. Continuing to work with ESSC leadership to build a more effective and responsive ES-ISAC.

### **Resource Requirements**

#### **Personnel**

As previously noted, in 2015 additional open budgeted resources were re-allocated to provide support to the ES-ISAC<sup>34</sup>. The year over year comparison of budgeted FTEs is net of a reduction in ES-ISAC FTEs due to the transfer of CID auditors to the Compliance Assurance department. This had the effect of offsetting the impact of the allocation of these additional resources.

The ES-ISAC staffing and organizational structure has recently been updated to reflect four primary focus areas (1) customer engagement, (2) watch operations (3) cyber security analysis, and (4) physical security analysis. NERC's 2016 organization chart attached as Appendix 1 has been updated to reflect these

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<sup>32</sup> The role of the Electricity Sub-sector Coordinating Council is to foster and facilitate the coordination of sector-wide policy-related activities and initiatives to improve the reliability and resilience of the Electricity Sub-sector, including physical and cybersecurity infrastructure. The ESSC consists of one member from the NERC Board of Trustees (appointed by the board chairperson), the NERC Chief Executive Officer, five CEO-level executives from NERC member organizations, and the chairperson of the NERC Critical Infrastructure Protection Committee.

<sup>33</sup> The ES-ISAC portal is being actively developed and upgraded. In 2014, it was moved to a new self-owned segmented and secured cloud platform. Additional enhancements will be released in 2015 to make the portal more useful for both cyber and physical security information sharing.

<sup>34</sup> Departments with reduced staffing needs included the legal, enforcement and standards departments.



changes. The ES-ISAC will continue to receive shared services support from NERC's corporate services departments (i.e. finance and accounting, IT, HR, legal and external affairs). Personnel providing such shared services will do so only in accordance with strict operating protocols governing access to and use of ES-ISAC information.

### **Contract Expenses**

The specific nature and need for contract support for the ES-ISAC falls under three major categories: Program Level Support, Software and Services, and Events and Outreach. Each of these categories is discussed further below and Exhibit C sets forth the budget for each of these categories of expense.

## **Program Level Support**

### **CRISP**

During 2016 NERC will continue to subcontract to PNNL a significant portion of the costs to operate and maintain CRISP.

### **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. Additional portal enhancements will also extend functionality to allow for easier access to filtered data for both the cyber and physical security communities and provide for Cyber Awareness Monitoring tool integration.

### **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 continues to support CRPA engagements.

### **Cyber Awareness Monitoring**

The ES-ISAC will continue to license 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.

## **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. 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. This workbench will include a threat database for historical correlation and various tools for network- and host-based analysis of malicious software.

### **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 for intelligence services from a specialized security information service providers that focuses closely on the electricity subsector. 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.

Section A — 2016 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Assets Expenditures							
2016 Budget & Projection and 2015 Budget							
ES-ISAC							
	2015 Budget	2015 Projection	2015 Projection v 2015 Budget Over(Under)	2016 Budget	2016 Budget v 2015 Budget Over(Under)	2016 Budget Draft 1	Variance to Prior Draft Over(Under)
<b>Funding</b>							
<b>ERO Funding</b>							
NERC Assessments*	\$ 9,671,899	9,671,899	\$ -	\$ 9,636,756	\$ (35,143)	\$ 9,669,923	\$ (33,167)
Penalty Sanctions	177,676	177,676	-	229,563	51,887	131,860	97,703
<b>Total NERC Funding</b>	<b>\$ 9,849,577</b>	<b>\$ 9,849,575</b>	<b>\$ -</b>	<b>\$ 9,866,319</b>	<b>\$ 16,744</b>	<b>\$ 9,801,783</b>	<b>\$ 64,536</b>
Third-Party Funding (CRISP)	8,943,589	7,233,140	(1,710,449)	6,830,738	(2,112,851)	8,365,389	(1,534,651)
Testing Fees	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-
Workshops	72,500	72,500	-	70,000	(2,500)	70,000	-
Interest	451	1,609	1,158	468	17	461	7
<b>Total Funding (A)</b>	<b>\$ 18,866,117</b>	<b>\$ 17,156,845</b>	<b>\$ (1,709,270)</b>	<b>\$ 16,767,525</b>	<b>\$ (2,098,590)</b>	<b>\$ 18,237,633</b>	<b>\$ (1,470,108)</b>
<b>Expenses</b>							
<b>Personnel Expenses</b>							
Salaries	\$ 3,157,196	\$ 2,696,350	\$ (460,846)	\$ 3,373,066	\$ 215,870	\$ 3,259,944	113,122
Payroll Taxes	188,916	178,178	(10,738)	208,610	19,693	205,086	3,524
Benefits	339,525	281,572	(57,953)	345,260	5,735	345,227	34
Retirement Costs	354,866	220,165	(134,701)	366,723	11,857	362,987	3,736
<b>Total Personnel Expenses</b>	<b>\$ 4,040,504</b>	<b>\$ 3,376,265</b>	<b>\$ (664,239)</b>	<b>\$ 4,293,659</b>	<b>\$ 253,155</b>	<b>\$ 4,173,243</b>	<b>120,416</b>
<b>Meeting Expenses</b>							
Meetings	\$ 193,134	\$ 193,134	\$ -	\$ 230,000	\$ 36,866	215,000	15,000
Travel	314,358	274,358	(40,000)	256,488	(57,870)	249,993	6,495
Conference Calls	46,385	46,385	-	22,000	(24,385)	22,000	-
<b>Total Meeting Expenses</b>	<b>\$ 553,877</b>	<b>\$ 513,877</b>	<b>\$ (40,000)</b>	<b>\$ 508,488</b>	<b>\$ (45,389)</b>	<b>\$ 486,993</b>	<b>21,495</b>
<b>Operating Expenses</b>							
Consultants & Contracts	\$ 8,756,190	\$ 7,670,930	\$ (1,085,260)	\$ 6,551,929	\$ (2,204,261)	8,329,390	(1,777,461)
Office Rent	-	\$ -	-	-	-	-	-
Office Costs	377,072	\$ 391,850	14,777	392,285	15,213	391,304	980
Professional Services	350,000	\$ 189,512	(160,488)	175,000	(175,000)	175,000	-
Miscellaneous	1,000	\$ 1,000	-	500	(500)	500	-
Depreciation	-	\$ 11,576	11,576	43,489	43,489	43,489	-
<b>Total Operating Expenses</b>	<b>\$ 9,484,262</b>	<b>\$ 8,264,868</b>	<b>\$ (1,219,394)</b>	<b>\$ 7,163,203</b>	<b>\$ (2,321,059)</b>	<b>\$ 8,939,683</b>	<b>\$ (1,776,481)</b>
<b>Total Direct Expenses</b>	<b>\$ 14,078,643</b>	<b>\$ 12,155,010</b>	<b>\$ (1,923,633)</b>	<b>\$ 11,965,349</b>	<b>\$ (2,113,294)</b>	<b>\$ 13,599,920</b>	<b>\$ (1,634,570)</b>
<b>Indirect Expenses</b>	<b>\$ 3,951,596</b>	<b>\$ 3,710,457</b>	<b>\$ (241,139)</b>	<b>\$ 4,450,914</b>	<b>\$ 499,317</b>	<b>\$ 4,390,888</b>	<b>\$ 60,026</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 18,030,240</b>	<b>\$ 15,865,467</b>	<b>\$ (2,164,772)</b>	<b>\$ 16,416,263</b>	<b>\$ (1,613,977)</b>	<b>\$ 17,990,808</b>	<b>\$ (1,574,545)</b>
<b>Change in Assets</b>	<b>\$ 835,877</b>	<b>\$ 1,291,378</b>	<b>\$ 455,503</b>	<b>\$ 351,262</b>	<b>\$ (484,613)</b>	<b>246,825</b>	<b>104,437</b>
<b>Fixed Assets</b>							
Depreciation	-	(11,576)	(11,576)	(43,489)	(43,489)	(43,489)	-
Computer & Software CapEx	100,000	5,257	(94,743)	100,000	-	-	100,000
Furniture & Fixtures CapEx	-	-	-	-	-	-	-
Equipment CapEx	-	194,743	194,743	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-	-
Allocation of Fixed Assets	\$ 235,877	\$ 264,032	28,155	294,751	58,874	290,314	4,437
<b>Inc(Dec) in Fixed Assets ( C )</b>	<b>\$ 335,877</b>	<b>\$ 452,456</b>	<b>\$ 116,579</b>	<b>\$ 351,262</b>	<b>\$ 15,385</b>	<b>\$ 246,825</b>	<b>\$ 104,437</b>
<b>TOTAL BUDGET (=B + C)</b>	<b>\$ 18,366,117</b>	<b>\$ 16,317,923</b>	<b>\$ (2,048,194)</b>	<b>\$ 16,767,525</b>	<b>\$ (1,598,592)</b>	<b>\$ 18,237,633</b>	<b>\$ (1,470,108)</b>
<b>FTEs</b>	<b>18.76</b>	<b>16.08</b>	<b>(2.68)</b>	<b>18.90</b>	<b>0.14</b>	<b>18.44</b>	<b>0.46</b>

## Training, Education, and Operator Certification

Training, Education and Operator Certification (in whole dollars)					
	2015 Budget	2016 Budget	Increase (Decrease)	2016 Budget - Prior Draft	Variance to Prior Draft Over(Under)
Total FTEs	7.97	7.38	(0.59)	7.376	-
Direct Expenses	\$ 2,171,919	\$ 2,062,086	\$ (109,834)	\$ 2,211,435	\$ (149,350)
Indirect Expenses	\$ 1,678,797	\$ 1,737,034	\$ 58,237	\$ 1,756,355	\$ (19,321)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 100,210	\$ 113,112	\$ 12,902	\$ 114,207	\$ (1,095)
TOTAL BUDGET	\$ 3,950,926	\$ 3,912,231	\$ (38,695)	\$ 4,081,997	\$ (169,766)

### 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 NERC's 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 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. The responsibility for training is shared among multiple departments at NERC.<sup>35</sup>

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 (PCGC), 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. Section 900 of the NERC Rules of Procedure addresses the Training and Education Program's activities in these areas.

### Key Efforts Underway

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

1. Risk-Based Compliance Monitoring and Enforcement

<sup>35</sup> The Compliance Assurance and Human Resources departments are also engaged in training initiatives.

2. Standards and Compliance
3. Registration and Certification
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
6. New System Operator Certification exams for each credential: Reliability Coordinator; Transmission Operator; Balancing and Interchange Operator; and Balancing, Interchange and Transmission Operator.

### **2016 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 NERC 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 risk-based compliance monitoring and enforcement 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 skill 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
- Developing and incorporating a systematic approach to ongoing 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.

As part of the System Operator Certification exam development cycle, a job task analysis (JTA) will be conducted in 2015. The results of the JTA will be the baseline for the next set of exams. NERC will continue

to work with industry stakeholders and the exam development vendor to create certification exams that will promote reliability of the North American BPS. The Continuing Education (CE) program will review and enhance the program manual. As the CE program continues to grow, there are opportunities to adjust the program manual to address new training topics and techniques.

## Resource Requirements

### Personnel

No additional personnel are proposed for this area in 2016. The slight reduction in FTEs is due to the application of an updated vacancy rate (7.8% vs 6.0%).

### Contractor Expenses

The total proposed consulting and contractor budget is approximately \$76k lower in 2016 than the 2015 budget.

Further detail in support of the proposed 2016 contractor and consulting budget to support Training, Education, and Operator Certification is set forth in Exhibit C, which includes a comparison to 2015 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 System Operator Certification and Continuing Education (SOCCED) database.
- Improvements to the SOCCED database.
- 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.<sup>36</sup>
- 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 and 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.

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<sup>36</sup> 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.

Section A — 2016 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Assets Expenditures							
2015 Budget & Projection, and 2016 Budget							
TRAINING, EDUCATION and OPERATOR CERTIFICATION							
	2015	2015	Variance	2016	Variance	2016 Budget	Variance to
	Budget	Projection	2015 Projection	Budget	2016 Budget	Draft 1	Prior Draft
			v 2015 Budget		v 2015 Budget		Over(Under)
			Over(Under)		Over(Under)		Over(Under)
<b>Funding</b>							
<b>ERO Funding</b>							
NERC Assessments	\$ 1,826,822	\$ 1,826,822	\$ -	\$ 1,742,146	\$ (84,676)	\$ 1,779,553	\$ (37,407)
Penalty Sanctions	48,871	48,871	-	55,994	7,123	32,965	23,029
<b>Total NERC Funding</b>	<b>\$ 1,875,692</b>	<b>\$ 1,875,693</b>	<b>\$ -</b>	<b>\$ 1,798,139</b>	<b>\$ (77,553)</b>	<b>\$ 1,812,518</b>	<b>\$ (14,378)</b>
Third-Party Funding	-	-	-	-	-	-	-
Testing Fees	1,670,000	1,670,000	-	1,867,972	197,972	1,867,972	-
Services & Software	-	-	-	-	-	-	-
Workshops	-	-	-	-	-	-	-
Interest	192	191	(1)	183	(9)	184	(2)
Miscellaneous	-	10	10	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 3,545,884</b>	<b>\$ 3,545,894</b>	<b>\$ 9</b>	<b>\$ 3,666,294</b>	<b>\$ 120,409</b>	<b>\$ 3,680,674</b>	<b>\$ (14,380)</b>
<b>Expenses</b>							
<b>Personnel Expenses</b>							
Salaries	\$ 903,106	\$ 828,793	\$ (74,313)	\$ 857,257	\$ (45,849)	\$ 817,272	39,985
Payroll Taxes	60,937	63,437	2,500	64,345	3,409	61,804	2,541
Benefits	146,059	127,156	(18,903)	133,991	(12,068)	133,991	0
Retirement Costs	101,437	79,729	(21,708)	94,860	(6,577)	90,958	3,903
<b>Total Personnel Expenses</b>	<b>\$ 1,211,539</b>	<b>\$ 1,099,115</b>	<b>\$ (112,424)</b>	<b>\$ 1,150,454</b>	<b>\$ (61,085)</b>	<b>\$ 1,104,025</b>	<b>46,429</b>
<b>Meeting Expenses</b>							
Meetings	\$ 59,931	\$ 49,643	\$ (10,288)	\$ 80,000	\$ 20,069	\$ 80,000	-
Travel	25,322	22,000	(3,322)	21,139	(4,183)	21,118	21
Conference Calls	29,320	40,552	11,232	36,500	7,180	36,500	-
<b>Total Meeting Expenses</b>	<b>\$ 114,573</b>	<b>\$ 112,195</b>	<b>\$ (2,378)</b>	<b>\$ 137,639</b>	<b>\$ 23,066</b>	<b>\$ 137,618</b>	<b>21</b>
<b>Operating Expenses</b>							
Consultants & Contracts	\$ 752,130	\$ 752,670	\$ 540	\$ 675,800	\$ (76,330)	\$ 871,600	(195,800)
Office Rent	-	-	-	-	-	-	-
Office Costs	93,178	103,147	9,969	95,773	2,596	95,773	-
Professional Services	-	-	-	-	-	-	-
Miscellaneous	500	500	-	500	-	500	-
Depreciation	-	1,919	1,919	1,919	1,919	1,919	-
<b>Total Operating Expenses</b>	<b>\$ 845,808</b>	<b>\$ 858,236</b>	<b>\$ 12,428</b>	<b>\$ 773,992</b>	<b>\$ (71,815)</b>	<b>\$ 969,792</b>	<b>\$ (195,800)</b>
<b>Total Direct Expenses</b>	<b>\$ 2,171,919</b>	<b>\$ 2,069,545</b>	<b>\$ (102,374)</b>	<b>\$ 2,062,086</b>	<b>\$ (109,834)</b>	<b>\$ 2,211,435</b>	<b>\$ (149,350)</b>
<b>Indirect Expenses</b>	<b>\$ 1,678,797</b>	<b>\$ 1,693,704</b>	<b>\$ 14,907</b>	<b>\$ 1,737,034</b>	<b>\$ 58,237</b>	<b>\$ 1,756,355</b>	<b>\$ (19,321)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 3,850,716</b>	<b>\$ 3,763,249</b>	<b>\$ (87,467)</b>	<b>\$ 3,799,119</b>	<b>\$ (51,597)</b>	<b>\$ 3,967,790</b>	<b>\$ (168,671)</b>
<b>Change in Assets</b>	<b>\$ (304,832)</b>	<b>\$ (217,356)</b>	<b>\$ 87,476</b>	<b>\$ (132,825)</b>	<b>\$ 172,006</b>	<b>\$ (287,117)</b>	<b>154,291</b>
<b>Fixed Assets</b>							
Depreciation	-	(3,838)	(1,919)	(1,919)	(1,919)	(1,919)	-
Computer & Software CapEx	-	-	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-	-	-
Equipment CapEx	-	-	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-	-
Allocation of Fixed Assets	\$ 100,210	\$ 120,522	20,312	115,031	\$ 14,821	\$ 116,126	(1,095)
<b>Inc(Dec) in Fixed Assets (C)</b>	<b>\$ 100,210</b>	<b>\$ 116,684</b>	<b>\$ 18,393</b>	<b>\$ 113,112</b>	<b>\$ 12,902</b>	<b>\$ 114,207</b>	<b>\$ -</b>
<b>TOTAL BUDGET (=B + C)</b>	<b>\$ 3,950,926</b>	<b>\$ 3,879,933</b>	<b>\$ (69,074)</b>	<b>\$ 3,912,231</b>	<b>\$ (38,695)</b>	<b>\$ 4,081,997</b>	<b>\$ (169,766)</b>
<b>FTEs</b>	<b>7.97</b>	<b>7.34</b>	<b>(0.63)</b>	<b>7.38</b>	<b>(0.59)</b>	<b>7.38</b>	<b>-</b>

## Administrative Services

	Administrative Services (in whole dollars)						2016 Budget - Prior Draft	Variance to Prior Draft Over(Under)
	Direct Expenses and Fixed Assets			FTEs				
	2015 Budget	2016 Budget	Increase (Decrease)	2015 Budget	2016 Budget	Increase (Decrease)		
General and Administrative	\$ 8,629,889	\$ 9,881,311	\$ 1,251,422	13.13	17.52	4.39	9,703,628	177,683
Legal and Regulatory	4,448,015	3,465,966	(982,049)	15.01	12.22	(2.79)	\$ 3,715,224	(249,258)
Information Technology	10,514,943	12,156,674	1,641,731	19.70	22.13	2.43	\$ 12,155,865	810
Human Resources	1,158,304	1,510,177	351,872	2.81	2.77	(0.04)	\$ 1,510,076	100
Finance and Accounting	3,096,886	3,428,307	331,421	16.89	16.60	(0.29)	\$ 3,403,058	25,249
<b>Total Administrative Services</b>	<b>\$ 27,848,038</b>	<b>\$ 30,442,435</b>	<b>\$ 2,594,397</b>	<b>67.54</b>	<b>71.23</b>	<b>3.69</b>	<b>\$ 30,487,852</b>	<b>(45,417)</b>

### 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 are described 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 2016 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 2016 beyond current staffing. The increase in FTEs in the General and Administrative area is due to a reallocation occurring in 2015 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. The increase compared to 2015 is for search fees for a new trustee to replace an existing trustee who will have served a maximum term.



Board of Trustee Expenses	Budget 2015	Projection 2015	Budget 2016	2016 v 2015 Budget	Variance %
<b>Meetings and Travel Expenses</b>					
Quarterly Board Meetings	\$ 244,000	\$ 244,000	\$ 244,000	\$ -	-
Trustee Travel	150,000	150,000	150,000	-	-
<b>Total Board of Trustees Meetings and Travel Expenses</b>	<b>394,000</b>	<b>394,000</b>	<b>394,000</b>	-	-
<b>Professional Services</b>					
Independent Trustee Fees	1,085,000	1,047,813	1,126,354	41,354	-
Trustee Search Fees	-	61,232	100,000	100,000	-
<b>Total Board of Trustee Professional Services Expenses</b>	<b>1,085,000</b>	<b>1,109,045</b>	<b>1,226,354</b>	<b>141,354</b>	-
<b>Total Board of Trustee Expenses</b>	<b>\$ 1,479,000</b>	<b>\$ 1,503,045</b>	<b>\$ 1,620,354</b>	<b>\$ 141,354</b>	<b>9.56%</b>

## Legal and Regulatory

### Background and Scope

The Legal and Regulatory department's workload is derived from the following key NERC program areas: Compliance Analysis and Certification and Registration, 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 department also addresses legal and regulatory matters that arise in connection with the delegation agreements with the Regional Entities.

### Resource Requirements

Due to process improvements and increased efficiency, the number of FTEs allocated to the department was reduced in 2016 compared to 2015.

Outside law firms and consultants supporting this area are budgeted and tracked as Professional Services. The Professional Services budget for 2016 was reduced by approximately 20% compared to the 2015 budget.

## Information Technology

### Background and Scope

NERC's IT department plan includes capital and operating expenses required to support, build, configure, and enhance ERO Enterprise applications, data analysis, and ongoing operations.

### ERO Enterprise Applications

Three major categories of expense are included in the rolling three-year Enterprise Application budget and forecast:

1. **New Functionality** – As noted in the *2015 Business Plan and Budget*, IT strategy was to consider a Commercial Off-the-Shelf (COTS) product to reduce complexity and improve consistency across various NERC and Enterprise line-of-business applications. As such, during Q4 2014, IT implemented the CRM application (commonly referred to as xRM) as a platform for future ERO Enterprise applications. New application requests will be closely examined to determine if it they be configured to run on top of the xRM application prior to considering other alternatives (e.g., other COTS applications) or, as a last resort, custom development. The xRM application was chosen due to its robust architecture and compatibility with NERC's existing environment.

- a. **Enhancement** – As enterprise applications are brought online and operational, ongoing upgrades will be required to enhance features, add functionality, and meet the dynamic needs of the ERO Enterprise to ensure the reliability of the BPS. The Bulk Electric System Notifications and Exceptions (BESnet) tool was brought online and made operational on July 1, 2014. During 2015, the Standards Balloting System (SBS), Reliability Assessment Data System (RADS) and Events Analysis will also come online. All of these systems will require enhancements to meet business requirements. Enhancements to these applications will follow a disciplined process for approval and implementation.
  - b. **Support** – Enterprise applications implemented for use by NERC, Regional Entities, and sometimes registered entities (e.g., BESnet, Standards Balloting System (SBS)) require ongoing support to ensure they are operational. 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, and 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 to create analytics (e.g., Microsoft’s Analytics Platform System for determining business performance or, in the context of the ERO Enterprise, possible risk to reliability.)
  - c. **Support** – Support includes ongoing upgrades and enhancements and 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 and website maintenance and development.
- a. **Compliance Database (CRATS/webCDMS+)** – The compliance database is used to track violations, mitigation plans, and reporting required by NERC as the certified ERO. In addition, the compliance database has additional modules included, such as the Standards, Technical Feasibility Exceptions (TFEs), 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 10 years ago and are unable to take advantage of contemporary application development. They will have to be completely rewritten or may be able to leverage functionality available in the xRM application platform as a first option for replacement. Funding in 2016 is required for ongoing maintenance and enhancements until the applications can be rewritten or moved to the xRM platform or, in some cases, potentially divested or transferred to industry support.
  - c. **Quarterly Penetration, Vulnerability Testing all NERC Networks and Systems** – Expert consulting services to provide ongoing intrusion detection and vulnerability testing of the

NERC public website, NERC's network, applications, and systems is an essential requirement of ongoing operations. NERC is subject to frequent intrusion attempts where external parties try to gain access to our systems and infrastructure. 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 2015, IT undertook an initiative to improve several processes and will continue to place a high emphasis on security over the coming years.
- e. **Document Management Program and Website Enhancement** – During late 2014 and early 2015, NERC completed the initial steps required to begin implementation of a document management program in the second half of 2015. IT will leverage SharePoint 2013 as a foundational COTS application. Add-on functionality will then be implemented into SharePoint to create a document management system using native Microsoft functionality for document storage and retrieval. Implementation of a document management system is a multiyear initiative designed to greatly reduce the manual, labor-intensive effort of managing thousands of documents by streamlining the storage, security, versioning, data classification, and archiving of NERC information. SharePoint 2013 will also serve as the repository for all documents, including those required by the Event Analysis application and the Reliability Assessment Data System.

### **Robust Planning for New Capital Projects**

In connection with the 2016 business planning cycle, the company significantly improved its approach to evaluating potential capital investments in major enterprise software applications. The company has adopted an enterprise information technology investment planning methodology that ensures only projects with compelling and approved business cases are funded. The company uses a four gated approval process (Business Unit Sponsor-approval gate, NERC VP/CTO – approval gate, ERO Technology Leadership Team (NERC CEO and two Regional Entity CEOs) – approval gate and the full ERO-EMG (CEOs of NERC and each Regional Entities) approval gate). This gated process provides the required rigor and discipline to ensure only high value enterprise IT investments are pursued. In addition, all Enterprise IT investments are subject to ongoing oversight by a subgroup consisting of three members of the NERC Board of Trustee's Standards Oversight and Technology Committee.

Recent examples of the results of this methodology include investments in an events analysis management system (EA System) and the reliability assessment data system (RADS):

- The EA System provides integration of events data systems, while enabling a more efficient and effective method for event data collection, tracking, analysis and reporting. This enhances the ability of the ERO and stakeholders to identify and focus on significant and emerging reliability risks. This tool will be used by NERC and the Regional Entities, providing a consistent experience for all ERO clients involved in the events analysis business process.
- The RADS system provides for a more efficient method for NERC to complete seasonal and long-term reliability assessment reports. Specifically, the RADS automates the importing of data, provides for ad hoc and pre-defined reporting and provides access to historical data. In fact, a recent benchmarking exercise indicated that RADS enabled a routine data import process to be completed in 22 minutes as compared to the historical time of 80 hours. This process

improvement will allow NERC's analysts and engineers to spend more time analyzing reliability risk related data instead of having to spend their time importing data.

During 2015, NERC also commenced implementation of a document management program. The implementation of a document management program supports a number of important business requirements, including:

- Ensuring proper classification and management of confidential information
- Addressing a number of internal audit recommendations/mitigates corporate risk
- Improving information access and search capabilities
- Facilitating working group, team, and stakeholder collaboration
- Supporting document retention policy and procedures
- Simplifying document retrieval
- Improving version control of documents
- Improving workflow control (review and approval of documents)
- Increasing efficiency and employee productivity

Implementation of the document management program is a multi-year initiative with significant funding requirements. The evaluation of the cost-benefit of the document management program indicated tremendous value to the organization, primarily in terms of addressing the business requirements set forth above. The cost benefit analysis of this project also demonstrated that NERC's projected average cost per user is comparable to market. In addition, assuming achievement of modest personnel efficiency gains (between 2-7 percent) from using the new system, the program will generate value in terms of increased resource availability well above anticipated costs. The project was reviewed in depth with the board of trustee's Standards Oversight and Technology Committee and Finance and Audit Committee, which, together with the Board of Trustees, authorized reserve funding at their May, 2015 meetings to commence initiation of the program.

Other proposed 2016 IT capital investments, including Enterprise Reporting, are focused on employee productivity and tools to enable more sophisticated data analysis supporting core business functions.

## **Resource Requirements**

### **Personnel**

The increase in FTEs resulted from the transfer of personnel from other departments to strengthen management oversight and execution.

### **Contract and Consulting Resources to Support Internal Operations**

The 2016 budgeted amounts are set forth in Exhibit C, with a comparison to 2015 budgeted amounts. The increase in the 2016 budget compared to 2015 is primarily due to the inclusion of ongoing maintenance costs for recently added ERO Enterprise applications and costs for the document management program.

**2016 IT Operating Expenses**

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

Office Costs	Budget 2015	Budget 2016	Variance
Telephone	\$ 225,000	\$ 225,000	\$ -
Telephone - Answering Service	3,000	3,000	-
Internet	375,000	350,000	(25,000)
Computer Supplies and Maintenance			
Computers	9,000	25,000	16,000
Computer Supplies	100,100	96,100	(4,000)
Maintenance & Service Agreements	1,333,320	1,365,295	31,975
Software	88,000	59,000	(29,000)
Subscription and Publications	-	108,300	108,300
Dues		2,500	2,500
Express Shipping	10,000	5,000	(5,000)
<b>Total Office Costs</b>	<b>\$ 2,143,420</b>	<b>\$ 2,239,195</b>	<b>\$ 95,775</b>

**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. 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. 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. 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. They include computer monitors, mice, keyboards, cell phone cases, cables, encrypted hard drives, encrypted thumb drives, encryption keys, uninterruptible power supplies, 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, file servers, audiovisual equipment, storage area networks, 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 200 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 Adobe Creativity Suite, remote support tools, and various other IT support tools are included under this line item. The tools are primarily used for NERC infrastructure purposes to support and manage the application, server, and network environment.

**Express Shipping**

Express shipping is for shipping of IT computers and computer supplies.

**2016 IT Fixed Asset (Capital) Expenses**

The following table presents a summary of NERC's 2016 fixed asset (capital) budget compared to the 2015 budget:

NERC Capital Budget			
	2015 Budget	2016 Budget	Inc(Dec) v 2015
ERO Application Development	\$ 1,050,000	\$ 1,500,000	\$ 450,000
Document Management	-	465,000	465,000
ERO Data Analysis Tool	550,000	-	(550,000)
Generation Data Software	200,000	-	(200,000)
Other IT Hardware and Software	1,453,500	1,411,000	(42,500)
Network Devices and A/V	365,000	535,000	170,000
<b>Total Capital Budget</b>	<b>\$ 3,618,500</b>	<b>\$ 3,911,000</b>	<b>\$ 292,500</b>
Depreciation (excluded from Assessmen	(2,333,006)	(2,641,943)	(308,937)
<b>Fixed Assets (net)</b>	<b>\$ 1,285,494</b>	<b>\$ 1,269,057</b>	<b>\$ (16,437)</b>

As in prior years, the goal of the 2016–2018 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 the Microsoft xRM application, SharePoint 2013, and disaster recovery and enhanced security—sets the stage for vastly improved reporting and business intelligence. It also allows the 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 2016 budget also includes the cost of security enhancements, network assets, software, servers, laptops, and other hardware to support daily operations.

## **Human Resources**

### **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 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, and continues to make refinements to the system.

### **Management Training and Development**

NERC's executives and managers participate in ongoing training and development to improve managerial skills, knowledge sharing, and team performance. They also help facilitate succession planning and career development.

### **Staff Development**

Management believes that access to knowledge is a key differentiator for NERC and that it ensures retention and high performance. NERC will continue to invest in learning opportunities for staff in several areas. First, HR will continue to host and optimize an e-learning platform, SkillSoft, to provide staff resources for improving soft and technical skills. Second, HR will provide staff development training through 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**

Consultants are periodically retained to examine appropriate compensation based on current market data. This ensures 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. NERC also periodically retains compensation subject matter experts to perform periodic assessments of the BOT compensation model to ensure alignment with market practices.

### **Surveys**

NERC periodically retains a vendor to conduct 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 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**

Critical 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 2016.

#### **Contractor Expenses**

Contractor and consultant expenses are set forth in additional detail in Exhibit C. The increase over 2015 is primarily due to increased costs for additional staff training.

#### **Miscellaneous Expenses**

Miscellaneous expenses include community responsibility and employee engagement, the year-end employee appreciation event, and employee rewards and recognition.

## **Finance and Accounting**

### **Background and Scope**

NERC's Finance and Accounting department manages all finance and accounting functions, including employee payroll, 401(k), 457(b), and 457(f) 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**

One additional FTE was added to this department in late 2014 to strengthen segregation of duties, cross training, and backup functions, as well as support succession-planning initiatives. The added FTE is offset by the updated vacancy rate.

#### **Contractor Expenses**

Approximately \$300k is budgeted for outside contractor and consulting support, representing a decrease compared to the 2015 budget. These costs are primarily for outside professional support for auditors to support various risk management and internal control initiatives, as well as to provide finance and accounting support.



Section A — 2016 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Assets Expenditures								
2015 Budget & Projection, and 2016 Budget								
ADMINISTRATIVE SERVICES								
	2015	2015	Variance	2016	Variance	2016 Budget		Variance to
	Budget	Projection	2015 Projection	Budget	2016 Budget	Draft 1		Prior Draft
			v 2015 Budget					Over(Under)
			Over(Under)					Over(Under)
<b>Funding</b>								
<b>ERO Funding</b>								
NERC Assessments	\$ 626,997	\$ 626,997	\$ -	\$ 561,427	\$ (65,570)	\$ 175,000		\$ 386,427
Penalty Sanctions	-	-	-	-	-	-		-
<b>Total NERC Funding</b>	<b>\$ 626,997</b>	<b>\$ 626,997</b>	<b>\$ -</b>	<b>\$ 561,427</b>	<b>\$ (65,570)</b>	<b>\$ 175,000</b>		<b>\$ 386,427</b>
Third-Party Funding	-	-	-	-	-	-		-
Testing Fees	-	-	-	-	-	-		-
Services & Software	-	-	-	-	-	-		-
Workshops	-	-	-	-	-	-		-
Interest	-	-	-	-	-	-		-
Miscellaneous	-	-	-	-	-	-		-
<b>Total Funding (A)</b>	<b>\$ 626,997</b>	<b>\$ 626,997</b>	<b>\$ -</b>	<b>\$ 561,427</b>	<b>\$ (65,570)</b>	<b>\$ 175,000</b>		<b>\$ 386,427</b>
<b>Expenses</b>								
<b>Personnel Expenses</b>								
Salaries	\$ 10,078,982	\$ 11,050,223	\$ 971,241	\$ 11,054,511	\$ 975,529	\$ 11,130,114		(75,602)
Payroll Taxes	564,567	656,558	91,991	662,269	97,702	672,885		(10,616)
Benefits	1,299,268	1,348,538	49,270	1,369,805	70,538	1,390,423		(20,618)
Retirement Costs	1,036,455	1,101,571	65,116	1,024,669	(11,787)	1,041,599		(16,930)
<b>Total Personnel Expenses</b>	<b>\$ 12,979,273</b>	<b>\$ 14,156,890</b>	<b>\$ 1,177,617</b>	<b>\$ 14,111,254</b>	<b>\$ 1,131,981</b>	<b>\$ 14,235,021</b>		<b>(123,767)</b>
<b>Meeting Expenses</b>								
Meetings	\$ 353,569	\$ 351,681	\$ (1,888)	\$ 315,000	\$ (38,569)	\$ 315,000		-
Travel	629,982	651,240	21,258	653,945	23,963	653,286		658
Conference Calls	61,512	62,110	598	63,300	1,788	63,300		-
<b>Total Meeting Expenses</b>	<b>\$ 1,045,063</b>	<b>\$ 1,065,031</b>	<b>\$ 19,968</b>	<b>\$ 1,032,245</b>	<b>\$ (12,818)</b>	<b>\$ 1,031,586</b>		<b>658</b>
<b>Operating Expenses</b>								
Consultants & Contracts	\$ 2,382,375	\$ 2,585,495	\$ 203,120	\$ 3,036,671	\$ 654,296	\$ 2,956,671		80,000
Office Rent	2,987,777	2,987,777	-	3,054,287	66,510	3,054,287		-
Office Costs	2,710,770	2,713,155	2,385	2,920,678	209,908	2,922,987		(2,308)
Professional Services	2,261,280	1,961,280	(300,000)	2,334,300	73,020	2,334,300		-
Miscellaneous	32,000	32,000	-	32,000	-	32,000		-
Depreciation	1,749,842	1,751,253	1,411	1,920,234	170,392	1,920,234		-
<b>Total Operating Expenses</b>	<b>\$ 12,124,044</b>	<b>\$ 12,030,960</b>	<b>\$ (93,084)</b>	<b>\$ 13,298,171</b>	<b>\$ 1,174,126</b>	<b>\$ 13,220,479</b>		<b>\$ 77,692</b>
<b>Total Direct Expenses</b>	<b>\$ 26,148,380</b>	<b>\$ 27,252,881</b>	<b>\$ 1,104,501</b>	<b>\$ 28,441,669</b>	<b>\$ 2,293,289</b>	<b>\$ 28,487,086</b>		<b>\$ (45,417)</b>
<b>Indirect Expenses</b>	<b>\$ (26,279,380)</b>	<b>\$ (27,323,087)</b>	<b>\$ (1,043,707)</b>	<b>\$ (28,551,669)</b>	<b>\$ (2,272,289)</b>	<b>\$ (28,597,086)</b>		<b>\$ 45,417</b>
<b>Other Non-Operating Expenses</b>	<b>\$ 131,000</b>	<b>\$ 70,206</b>	<b>\$ (60,794)</b>	<b>\$ 110,000</b>	<b>\$ (21,000)</b>	<b>\$ 110,000</b>		<b>-</b>
<b>Total Expenses (B)</b>	<b>\$ -</b>	<b>\$ 0</b>	<b>\$ (0)</b>	<b>\$ -</b>	<b>\$ (0)</b>	<b>\$ -</b>		<b>\$ 0</b>
<b>Change in Assets</b>	<b>\$ 626,997</b>	<b>\$ 626,997</b>	<b>\$ 0</b>	<b>\$ 561,427</b>	<b>\$ (65,569)</b>	<b>\$ 175,000</b>		<b>386,427</b>
<b>Fixed Assets</b>								
Depreciation	(1,749,842)	(1,751,253)	(1,411)	(1,920,234)	(170,392)	(1,920,234)		-
Computer & Software CapEx	2,953,500	2,749,562	(203,938)	2,347,000	(606,500)	3,276,000		(929,000)
Furniture & Fixtures CapEx	-	14,611	14,611	-	-	-		-
Equipment CapEx	365,000	365,000	-	1,464,000	1,099,000	535,000		929,000
Leasehold Improvements	-	566,361	566,361	-	-	-		-
Allocation of Fixed Assets	(1,568,658)	(1,944,281)	(375,623)	(1,890,766)	(322,108)	(1,890,766)		-
0	0							
<b>Inc(Dec) in Fixed Assets (C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 0</b>	<b>\$ -</b>		<b>\$ -</b>
<b>TOTAL BUDGET (=B + C)</b>	<b>\$ -</b>	<b>\$ 0</b>	<b>\$ (0)</b>	<b>\$ -</b>	<b>\$ (0)</b>	<b>\$ -</b>		<b>\$ -</b>
<b>FTEs</b>	<b>67.54</b>	<b>73.62</b>	<b>6.08</b>	<b>71.23</b>	<b>3.69</b>	<b>72.39</b>		<b>(1.15)</b>

## 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**  
**Working Capital and Operating Reserves Analysis**

Working Capital and Operating Reserve Analysis					
Statutory					
	Total Reserves	Future Obligations Reserve <sup>1</sup>	Operating Contingency Reserve	Operator Certification	CRISP
<b>Beginning Working Capital and Operating Reserves Balance - 01/01/2015</b>	<b>7,460,907</b>	<b>3,569,492</b>	<b>2,011,402</b>	<b>1,294,513</b>	<b>585,500</b>
<b>Generation or (Use) from 2015 Operations</b>					
From 2015 budgeted operations	206,564	62,000	717,701	(503,358)	(69,779)
From 2015 approved use of reserves	(1,590,611)		(1,590,611)		
Proceeds from financing activities (non-current portion only)	1,266,667		1,266,667		
Debt Service	(421,667)		(421,667)		
Other adjustments to reserves	(608,337)	(593,418)	(14,919)		
<b>Projected Working Capital and Operating Reserves - 12/31/15</b>	<b>6,313,523</b>	<b>3,038,074</b>	<b>1,968,573</b>	<b>791,155</b>	<b>515,721</b>
<b>Required Working Capital and Operating Reserves - 12/31/16</b>	<b>8,809,627</b>	<b>3,158,074</b>	<b>2,475,000</b>	<b>389,832</b>	<b>515,721</b>
Adjustment in funding to achieve required reserve balance	380,490	120,000	506,427	(245,937)	-
Penalty sanctions available 1-1-2016 (See Table B-2)					
Less: Penalty sanction offset in 2016					
Other adjustments to reserves	-		-		
<b>Increase(decrease) in reserve balances</b>	<b>380,490</b>	<b>120,000</b>	<b>506,427</b>	<b>(245,937)</b>	<b>-</b>
2016 Expenses and Capital Expenditures	67,066,665		57,579,668	1,513,978	7,973,019
Less: Penalty Sanctions	(1,439,000)		(1,405,428)		(33,572)
Adjustment to achieve desired reserve balance	380,490	120,000	506,427	(245,937)	-
Less: Other Funding Sources	(8,981,710)		(882,863)	(1,268,040)	(6,830,807)
Less: Proceeds from financing activities (non-current only)	(1,000,000)		(1,000,000)		
Plus: debt service	1,055,000		1,055,000		
<b>2016 NERC Assessment</b>	<b>57,081,445</b>	<b>120,000</b>	<b>55,852,805</b>	<b>-</b>	<b>1,108,641</b>

<sup>1</sup>As further explained in the discussion of the Working Capital Reserve amount in Exhibit E, the Future Obligations Reserve offsets future, non-current liabilities. The calculation of Working Capital and Operating Reserve balances per 2014 audited financials and as projected for 2015 and 2016 is included with the Statements of Financial Position on page 90.

<sup>2</sup>On August 13, 2015, the NERC Board of Trustees approved the Working Capital and Operating Reserve Balance at 12/31/16.

## Table B-2 Penalties

### Penalty Sanctions

Until recently, penalty monies received prior to June 30 were to be used to offset assessments in the subsequent year's 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. The NERC Board has approved an updated Working Capital and Operating Reserves Policy that has also been conditionally approved by FERC (subject to a required compliance filing). This updated Policy allows NERC, with FERC approval pursuant to Section 1107.4 of the Rules of Procedure, to place penalty funds into a new Assessment Stabilization Reserve for use in future years to offset assessments. For the 2016 budget, \$3,710,000 of penalty funds received prior to June 30, 2015 were deposited into this reserve account. NERC proposes that \$1,439,000 of those funds be used to offset assessments for the 2016 budget with the remaining \$2,271,000 held in the Assessment Stabilization Reserve for future assessment offsets.

All penalties received through June 30, 2015 are detailed below, including the amount and date received.

### Allocation Method

Penalty sanctions used to offset 2016 assessments 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 on the number of FTEs in the program divided by the aggregate total FTEs in the programs receiving the allocation.

Penalty Sanctions	Date Received	Amount Received
<b>Penalties received between 7/1/2014 and 5/19/2015</b>		
	7/9/2014	1,000,000
	8/11/2014	1,500,000
	10/28/2014	125,000
	12/5/2014	1,000,000
	12/17/2014	100,000
	12/17/2014	85,000
	1/14/2015	400,000
	5/27/2015	500,000
		\$ 4,710,000
<b>Adjustments</b>		
Penalties received after 6/30/2014, but included in the 2015 Budget	7/9/2014	\$ (1,000,000)
Funding for assessments stabilization reserve		(2,271,000)
		\$ 1,439,000
<b>Total Penalty Sanctions included in the 2016 Budget</b>		\$ 1,439,000

### Table B-3 Outside Funding

Outside Funding Breakdown By Program (Excluding Penalty Sanction)	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget
<b>Reliability Standards</b>				
Workshops	\$ 104,000	\$ 104,000	\$ 105,000	\$ 1,000
Interest Allocation	587	587	445	(142)
<b>Total</b>	<b>\$ 104,587</b>	<b>\$ 104,587</b>	<b>\$ 105,445</b>	<b>\$ 858</b>
<b>Compliance Analysis, Registration and Certification</b>				
Interest Allocation	\$ 271	\$ 270	\$ 251	\$ (20)
<b>Total</b>	<b>\$ 271</b>	<b>\$ 270</b>	<b>\$ 251</b>	<b>\$ (20)</b>
<b>Compliance Assurance</b>				
Workshops	\$ -	\$ -	\$ -	\$ -
Interest Allocation	293	293	479	186
<b>Total</b>	<b>\$ 293</b>	<b>\$ 293</b>	<b>\$ 479</b>	<b>\$ 186</b>
<b>Compliance Enforcement</b>				
Interest Allocation	\$ 361	\$ 361	\$ 302	\$ (59)
<b>Total</b>	<b>\$ 361</b>	<b>\$ 361</b>	<b>\$ 302</b>	<b>\$ (59)</b>
<b>Reliability Assessments and Performance Analysis</b>				
pc_GAR Software	\$ 50,000	\$ 50,000	\$ 50,000	\$ -
Workshops	17,500	17,500	15,000	(2,500)
Interest Allocation	474	474	462	(12)
<b>Total</b>	<b>\$ 67,974</b>	<b>\$ 67,974</b>	<b>\$ 65,462</b>	<b>\$ (2,512)</b>
<b>Training and Education</b>				
Testing Fees and Certificate Renewals	\$ 1,070,000	\$ 1,070,000	\$ 1,267,972	\$ 197,972
CEH Fees	600,000	600,000	600,000	-
Interest Allocation	192	191	183	(9)
<b>Total</b>	<b>\$ 1,670,192</b>	<b>\$ 1,670,191</b>	<b>\$ 1,868,155</b>	<b>\$ 197,963</b>
<b>Event Analysis</b>				
Workshops	\$ 47,300	\$ 43,025	\$ 40,000	\$ (7,300)
Interest Allocation	226	226	274	48
<b>Total</b>	<b>\$ 47,526</b>	<b>\$ 43,251</b>	<b>\$ 40,274</b>	<b>\$ (7,252)</b>
<b>Situation Awareness</b>				
Workshops	\$ -	\$ -	\$ -	\$ -
Interest Allocation	147	147	137	(10)
<b>Total</b>	<b>\$ 147</b>	<b>\$ 147</b>	<b>\$ 137</b>	<b>\$ (10)</b>
<b>ES-ISAC</b>				
Third Party Funding (CRISP)	9,016,089	7,233,140	6,830,738	(2,185,351)
Workshops	72,500	72,500	70,000	(2,500)
Interest Allocation	451	1,609	468	17
<b>Total</b>	<b>\$ 9,089,040</b>	<b>\$ 7,307,249</b>	<b>\$ 6,901,206</b>	<b>\$ (2,187,834)</b>
<b>Total Outside Funding</b>	<b>\$ 10,907,235</b>	<b>\$ 9,194,323</b>	<b>\$ 8,981,710</b>	<b>\$ (1,998,806)</b>

## Explanation of Significant Variances – 2016 Budget Compared to 2015 Budget

- Reliability Assessments and Performance Analysis – Nominal license fees charged 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. NERC expects development of a replacement software application for pc-GAR. Any fees for licensing of the pc-GAR software in 2016 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.

- Event Analysis – The reduction in workshop fees is based upon 2014 actual results.
- ES-ISAC – The decrease is related to third-party funding of CRISP. Workshop fees associated with the Grid Security Conference are budgeted to be slightly lower in 2016 based on 2014 actual results. This was previously budgeted under the Critical Infrastructure Department, which is now merged into the ES-ISAC.

**Table B-4  
Personnel**

Personnel Expenses	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
<b>Total Salaries</b>	\$ 27,580,677	\$ 27,807,341	\$ 28,842,336	\$ 1,261,660	4.6%
<b>Total Payroll Taxes</b>	1,673,628	1,826,683	1,871,367	197,739	11.8%
<b>Total Benefits</b>	3,547,178	3,381,238	3,579,280	32,103	0.9%
<b>Total Retirement</b>	3,001,829	2,743,101	2,990,823	(11,006)	-0.4%
<b>Total Personnel Costs</b>	<u>\$ 35,803,312</u>	<u>\$ 35,758,363</u>	<u>\$ 37,283,807</u>	<u>\$ 1,480,495</u>	<u>4.1%</u>
<b>FTEs</b>	192.30	192.03	192.47	0.17	0.1%
<b>Cost per FTE</b>					
Salaries	\$ 143,425	\$ 144,807	\$ 149,852	6,427	4.5%
Payroll Taxes	8,703	9,512	9,723	1,020	11.7%
Benefits	18,446	17,608	18,596	150	0.8%
Retirement	15,610	14,285	15,539	(71)	-0.5%
<b>Total Cost per FTE</b>	<b>\$ 186,185</b>	<b>\$ 186,212</b>	<b>\$ 193,710</b>	<b>\$ 7,526</b>	<b>4.0%</b>

**Explanation of Significant Variances – 2016 Budget Compared to 2015 Budget**

The increase in salaries, payroll taxes, and retirement expenses is due to the increase in budgeted salaries, the addition of more senior staff in 2015, 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 delays. This reduced the total number of FTEs budgeted in all departments. Benefits are budgeted to increase based on 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	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
Office Rent	\$ 2,887,777	\$ 2,887,777	\$ 2,954,287	\$ 66,510	2.30%
Utilities	-	-	-	-	-
Maintenance	100,000	100,000	100,000	-	0.00%
<b>Total Office Rent</b>	<b>\$ 2,987,777</b>	<b>\$ 2,987,777</b>	<b>\$ 3,054,287</b>	<b>\$ 66,510</b>	<b>2.23%</b>

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

**Table B-7  
Office Costs**

Office Costs	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
Telephone	\$ 560,318	\$ 526,112	\$ 548,851	\$ (11,467)	-2.05%
Telephone Answering Srv	3,000	1,442	3,000	-	0.00%
Internet	403,357	389,163	375,900	(27,457)	-6.81%
Office Supplies	189,600	162,259	173,800	(15,800)	-8.33%
Computer Supplies and Maintenance					
Computers	9,000	11,000	25,000	16,000	177.78%
Computer Supplies	100,100	87,309	98,400	(1,700)	-1.70%
Maintenance & Service Agreements	1,749,979	1,757,959	1,874,871	124,892	7.14%
Software	140,680	98,440	117,500	(23,180)	-16.48%
Network Supplies		-	-	-	
Publications & Subscriptions	40,495	139,763	167,650	127,155	314.00%
Dues	53,000	59,120	48,050	(4,950)	-9.34%
Postage	12,300	9,450	16,350	4,050	32.93%
Express Shipping	38,500	25,647	28,200	(10,300)	-26.75%
Copying	65,000	105,116	105,000	40,000	61.54%
Reports	3,000	3,000	2,000	(1,000)	-33.33%
Stationary/Forms	5,000	5,000	2,500	(2,500)	-50.00%
Equipment Repair/Service Contracts	100,000	100,000	75,000	(25,000)	-25.00%
Bank Charges	20,000	20,000	42,500	22,500	112.50%
Taxes	5,000	-	5,000	-	0.00%
Merchant Card Fees	85,000	74,715	86,000	1,000	1.18%
<b>Total Office Costs</b>	<b>\$ 3,583,328</b>	<b>\$ 3,575,494</b>	<b>\$ 3,795,572</b>	<b>\$ 212,243</b>	<b>5.92%</b>

**Explanation of Significant Variances – 2016 Budget Compared to 2015 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 increase in Publications and Subscriptions is based on 2015 projected costs and is primarily for information technology research and advisory services. The decreases in Internet and Equipment Repair/Service Contracts and the increase in Copying are based upon 2015 projected costs.



**Table B-8  
Professional Services**

Professional Services	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
Independent Trustee Fees	\$ 1,085,000	\$ 1,047,813	\$ 1,126,354	\$ 41,354	3.81%
Trustee Search Fee	-	61,232	100,000	100,000	
Outside Legal	930,000	419,512	690,000	(240,000)	-25.81%
Lobbying Fees	50,000	50,000	50,000	-	0.00%
Accounting & Auditing Fees	150,000	150,000	154,500	4,500	3.00%
Insurance Commercial	200,000	250,000	225,000	25,000	12.50%
Outside Services	196,280	172,235	163,446	(32,834)	-16.73%
<b>Total Services</b>	<b>\$ 2,611,280</b>	<b>\$ 2,150,792</b>	<b>\$ 2,509,300</b>	<b>\$ (101,980)</b>	<b>-3.91%</b>

The Professional Services budget includes trustee search fees, which is required in 2016 to replace a trustee whose term limit has been reached. The reduction in outside legal fees is based on taking more work in-house and a reduction in projected outside legal needs due to the completion of certain contract negotiations. The increase in insurance is related to the retention of an outside insurance advisor to assist NERC in managing the company's insurance needs, which has become more complex. The projected reduction in outside service costs is primarily due to cost reductions achieved by a change in providers.

**Table B-9  
Miscellaneous**

Miscellaneous Expenses	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
Miscellaneous Expense	\$ 6,500	\$ 7,000	\$ 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%
<b>Total Miscellaneous Expenses</b>	<b>\$ 36,500</b>	<b>\$ 37,000</b>	<b>\$ 36,500</b>	<b>\$ -</b>	<b>0.00%</b>

The 2016 Miscellaneous Expense budget is \$36,500, which is equal to the 2015 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 (\$6.5k); (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 expenses (\$10k); and (4) year-end employee recognition meal expenses (\$10k).

**Table B-10**  
**Other Non-Operating Expenses**

Other Non-Operating Expenses	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
Gain/Loss from Sale of Assets				\$ -	
Property Tax Expense	\$ 50,000	50,000	\$ 50,000	-	
Office Relocation	-			-	
Interest	81,000	20,206	60,000	(21,000)	
<b>Total Other Non-Operating Expenses</b>	<b>\$ 131,000</b>	<b>\$ 70,206</b>	<b>\$ 110,000</b>	<b>\$ (21,000)</b>	<b>-16.03%</b>

The decrease in budgeted interest expense is due to a lower outstanding debt balance than assumed in the 2015 budget. Due to budget underruns in 2014, the company did not draw on the loan to fund 2014 expenditures as planned in the 2014 budget.

## Section C — Non-Statutory Activity

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NERC has no non-statutory activities.

## Section D — Supplemental Financial Statements

### NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

#### STATEMENT OF FINANCIAL POSITION

	12/31/2014 Per Audit	12/31/2015 Projection	12/31/2016 - Projection
<b>ASSETS</b>			
Cash	38,810,796	38,414,704	37,729,527
Trade Accounts receivable, net of allowance for uncollectible accounts of \$0 and \$62,573 in 2013 and 2012	5,059,002	5,059,002	5,059,002
Prepaid expenses and other current assets	756,727	756,727	756,727
Security deposit	99,136	125,416	125,416
Plan Assets (457b and 457f)	522,756	793,956	793,956
Property and equipment	5,929,366	8,315,223	9,584,281
<b>Total Assets</b>	<b>51,177,783</b>	<b>53,465,028</b>	<b>54,048,909</b>
<b>LIABILITIES AND NET ASSETS</b>			
Liabilities			
<b>Current Portion</b>			
Accounts payable and accrued expenses (incl, vacation accrual)	4,876,284	4,876,284	4,876,284
Accrued Incentive Comp	4,054,329	4,622,109	4,760,772
Deferred rent-current	249,269	322,218	372,924
Deferred compensation-current	14,257	14,257	14,257
Capital lease obligations - current	56,457	-	-
Accrued retirement liabilities	1,907,562	1,696,250	1,753,137
Debt Service - Current Portion	421,667	1,055,000	1,168,472
Deferred income	6,228,959	6,228,959	6,228,959
Deferred revenue - penalties	-	-	-
Deferred revenue - CRISP	3,953,379	3,953,379	3,953,379
Regional assessments	11,438,455	11,438,455	11,438,455
<b>Total Current Portion</b>	<b>33,200,618</b>	<b>34,206,910</b>	<b>34,566,638</b>
<b>Long-Term Portion</b>			
Deferred compensation <sup>1</sup>	783,446	845,446	965,446
Capital Project Financing - non-current	456,806	1,301,805	1,633,333
Deferred rent - non-current	3,569,492	3,247,274	2,874,350
CRISP Insurance Reserve	500,000	500,000	500,000
Deferred Revenue - Assessment Stabilization Reserve	-	-	2,271,000
Capital lease obligations - non-current	216,481	165,843	165,843
<b>Total Non-Current Portion</b>	<b>5,526,224</b>	<b>6,060,368</b>	<b>8,409,972</b>
<b>Total Liabilities</b>	<b>38,726,842</b>	<b>40,267,277</b>	<b>42,976,610</b>
Net Assets - unrestricted	8,485,941	9,487,751	11,072,299
Net Assets - restricted	3,965,000	3,710,000	-
<b>Total Liabilities and Net Assets</b>	<b>51,177,783</b>	<b>53,465,028</b>	<b>54,048,909</b>

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Statement of Activities, Fixed Asset Expenditures and Change in Working Capital by Program 2016 Budget				Statutory Activities																
				Total	Statutory Total	Non-Statutory Total	Statutory Total	Reliability Standards	Compliance Analysis&Cert	Compliance Assurance	Compliance Enforcement	Reliability Assessment and Performance Analysis	Operator Certification	Training and Continuing Education	Event Analysis	Situation Awareness	ES-ISAC	General and Administrative (Includes Executive and Gov't Relations)	Legal and Regulatory	Information Technology
<b>Funding</b>																				
<b>ERO Funding</b>																				
NERC Assessments	57,081,445	57,081,445	-	57,081,445	7,869,295	4,509,458	9,185,250	5,144,612	9,626,497		1,742,146	5,181,136	3,624,868	9,636,756	561,427	-	-	-	-	
Penalty Sanctions	1,439,000	1,439,000	-	1,439,000	218,376	123,162	235,174	148,384	226,769		55,994	134,385	67,193	229,563	-	-	-	-	-	
<b>Total NERC Funding</b>	<b>58,520,445</b>	<b>58,520,445</b>	<b>-</b>	<b>58,520,445</b>	<b>8,087,671</b>	<b>4,632,620</b>	<b>9,420,424</b>	<b>5,292,996</b>	<b>9,853,266</b>		<b>1,798,139</b>	<b>5,315,521</b>	<b>3,692,060</b>	<b>9,866,319</b>	<b>561,427</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Third-Party Funding (CRISP)	6,830,738	6,830,738	-	6,830,738										6,830,738						
Testing Fees	1,867,972	1,867,972	-	1,867,972						1,267,972	600,000									
Services & Software	50,000	50,000	-	50,000					50,000											
Workshops	230,000	230,000	-	230,000	105,000				15,000			40,000							70,000	
Interest	3,000	3,000	-	3,000	445	251	479	302	462	68	114	274	137	468						
Miscellaneous	-	-	-	-																
<b>Total Funding (A)</b>	<b>67,502,155</b>	<b>67,502,155</b>	<b>-</b>	<b>67,502,155</b>	<b>8,193,116</b>	<b>4,632,871</b>	<b>9,420,903</b>	<b>5,293,298</b>	<b>9,918,728</b>	<b>1,268,040</b>	<b>2,398,254</b>	<b>5,355,795</b>	<b>3,692,197</b>	<b>16,767,525</b>	<b>561,427</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>Expenses</b>																				
<b>Personnel Expenses</b>																				
Salaries	28,842,336	28,842,336	-	28,842,336	2,260,735	1,410,333	3,063,004	1,629,233	2,713,593	265,559	591,698	1,716,263	764,342	3,373,066	3,251,527	2,073,953	2,974,925	742,020	2,012,086	
Payroll Taxes	1,871,367	1,871,367	-	1,871,367	163,064	97,779	205,979	109,485	187,469	20,208	44,138	114,132	58,235	208,610	178,105	122,828	206,604	26,978	127,754	
Benefits	3,579,280	3,579,280	-	3,579,280	327,239	184,238	351,727	222,877	340,119	50,247	83,744	202,259	101,765	345,260	393,229	222,877	401,973	50,247	301,480	
Retirement Costs	2,990,823	2,990,823	-	2,990,823	250,560	157,451	336,902	181,419	301,588	29,658	65,203	191,377	85,275	366,723	196,568	230,150	332,297	43,781	221,874	
<b>Total Personnel Expenses</b>	<b>37,283,807</b>	<b>37,283,807</b>	<b>-</b>	<b>37,283,807</b>	<b>3,001,598</b>	<b>1,849,801</b>	<b>3,957,612</b>	<b>2,143,014</b>	<b>3,542,769</b>	<b>365,671</b>	<b>784,783</b>	<b>2,224,030</b>	<b>1,009,617</b>	<b>4,293,659</b>	<b>4,019,428</b>	<b>2,649,807</b>	<b>3,915,800</b>	<b>863,025</b>	<b>2,663,193</b>	
<b>Meeting Expenses</b>																				
Meetings	1,096,500	1,096,500	-	1,096,500	207,000	4,000	60,000	2,500	110,000	55,000	25,000	81,500	6,500	230,000	299,000	4,000	7,500	2,000	2,500	
Travel	2,203,786	2,203,786	-	2,203,786	271,988	155,146	276,343	56,736	326,510	7,389	13,751	152,487	33,005	256,488	444,515	93,231	56,508	8,728	50,963	
Conference Calls	320,000	320,000	-	320,000	133,000	2,000	20,000	1,200	27,000	500	36,000	14,000	1,000	22,000	19,200	6,400	31,500	1,000	5,200	
<b>Total Meeting Expenses</b>	<b>3,620,286</b>	<b>3,620,286</b>	<b>-</b>	<b>3,620,286</b>	<b>611,988</b>	<b>161,146</b>	<b>356,343</b>	<b>60,436</b>	<b>463,510</b>	<b>62,889</b>	<b>74,751</b>	<b>247,987</b>	<b>40,505</b>	<b>508,488</b>	<b>762,715</b>	<b>103,631</b>	<b>95,508</b>	<b>11,728</b>	<b>58,663</b>	
<b>Operating Expenses</b>																				
Consultants & Contracts	12,865,914	12,865,914	-	12,865,914		50,000	200,000		1,084,039	348,200	327,600	56,000	1,211,475	6,551,929	95,000		2,094,671	550,000	297,000	
Office Rent	3,054,287	3,054,287	-	3,054,287											3,054,287					
Office Costs	3,795,572	3,795,572	-	3,795,572	64,622	25,338	44,779	21,866	139,998	42,694	53,080	49,181	41,052	392,285	508,027	52,028	2,239,195	9,423	112,005	
Professional Services	2,509,300	2,509,300	-	2,509,300										175,000	1,326,354	660,000		51,000	296,946	
Miscellaneous	36,500	36,500	-	36,500	500	500	500	500	500		500	500	500	500	5,500	500	500	25,000	500	
Depreciation	2,641,943	2,641,943	-	2,641,943	210,060			122	386,024		1,919	72,367	7,727	43,489	485,964	120	1,431,112	2,900	139	
<b>Total Operating Expenses</b>	<b>24,903,515</b>	<b>24,903,515</b>	<b>-</b>	<b>24,903,515</b>	<b>275,182</b>	<b>75,838</b>	<b>245,279</b>	<b>22,488</b>	<b>1,610,561</b>	<b>390,894</b>	<b>383,099</b>	<b>178,048</b>	<b>1,260,754</b>	<b>7,163,203</b>	<b>5,475,132</b>	<b>712,648</b>	<b>5,765,478</b>	<b>638,323</b>	<b>706,589</b>	
<b>Total Direct Expenses</b>	<b>65,807,608</b>	<b>65,807,608</b>	<b>-</b>	<b>65,807,608</b>	<b>3,888,768</b>	<b>2,086,784</b>	<b>4,559,233</b>	<b>2,225,938</b>	<b>5,616,840</b>	<b>819,454</b>	<b>1,242,632</b>	<b>2,650,065</b>	<b>2,310,875</b>	<b>11,965,349</b>	<b>10,257,275</b>	<b>3,466,086</b>	<b>9,776,787</b>	<b>1,513,076</b>	<b>3,428,446</b>	
<b>Indirect Expenses</b>	<b>(0)</b>	<b>(0)</b>	<b>-</b>	<b>(0)</b>	<b>4,234,020</b>	<b>2,387,951</b>	<b>4,559,714</b>	<b>2,876,962</b>	<b>4,396,749</b>	<b>651,388</b>	<b>1,085,646</b>	<b>2,605,551</b>	<b>1,302,775</b>	<b>4,450,914</b>	<b>(10,367,275)</b>	<b>(3,466,086)</b>	<b>(9,776,787)</b>	<b>(1,513,076)</b>	<b>(3,428,446)</b>	
<b>Other Non-Operating Expenses</b>	<b>110,000</b>	<b>110,000</b>	<b>-</b>	<b>110,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>110,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>Total Expenses (B)</b>	<b>65,917,608</b>	<b>65,917,608</b>	<b>-</b>	<b>65,917,608</b>	<b>8,122,788</b>	<b>4,474,734</b>	<b>9,118,947</b>	<b>5,102,901</b>	<b>10,013,589</b>	<b>1,470,841</b>	<b>2,328,278</b>	<b>5,255,616</b>	<b>3,613,650</b>	<b>16,416,263</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>Change in Assets</b>	<b>1,584,548</b>	<b>1,584,548</b>	<b>-</b>	<b>1,584,548</b>	<b>70,328</b>	<b>158,136</b>	<b>301,956</b>	<b>190,398</b>	<b>(94,860)</b>	<b>(202,801)</b>	<b>69,975</b>	<b>100,179</b>	<b>78,547</b>	<b>351,262</b>	<b>561,427</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>Fixed Assets</b>																				
Depreciation	(2,641,943)	(2,641,943)	-	(2,641,943)	(210,060)	-	-	(122)	(386,024)	-	(1,919)	(72,367)	(7,727)	(43,489)	(485,964)	(120)	(1,431,112)	(2,900)	(139)	
Computer & Software CapEx	2,447,000	2,447,000	-	2,447,000										100,000			2,347,000			
Furniture & Fixtures CapEx	-	-	-	-																
Equipment CapEx	1,464,000	1,464,000	-	1,464,000														1,464,000		
Leasehold Improvements	-	-	-	-																
Allocation of Fixed Assets	(0)	(0)	-	(0)	280,388	158,136	301,956	190,520	291,164	43,137	71,894	172,546	86,273	294,751	485,964	120	(2,379,888)	2,900	139	
<b>Inc(Dec) in Fixed Assets ( C )</b>	<b>1,269,057</b>	<b>1,269,057</b>	<b>-</b>	<b>1,269,057</b>	<b>70,328</b>	<b>158,136</b>	<b>301,956</b>	<b>190,398</b>	<b>(94,860)</b>	<b>43,137</b>	<b>69,975</b>	<b>100,179</b>	<b>78,547</b>	<b>351,262</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>TOTAL BUDGET (=B + C)</b>	<b>67,186,665</b>	<b>67,186,665</b>	<b>-</b>	<b>67,186,665</b>	<b>8,193,116</b>	<b>4,632,871</b>	<b>9,420,903</b>	<b>5,293,298</b>	<b>9,918,728</b>	<b>1,513,978</b>	<b>2,398,254</b>	<b>5,355,795</b>	<b>3,692,197</b>	<b>16,767,525</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>315,490</b>	<b>315,490</b>	<b>-</b>	<b>315,490</b>	<b>(0)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(0)</b>	<b>(245,937)</b>	<b>(0)</b>	<b>(0)</b>	<b>0</b>	<b>0</b>	<b>561,427</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>FTEs</b>	<b>192.47</b>	<b>192.47</b>	<b>-</b>	<b>192.47</b>	<b>17.98</b>	<b>10.14</b>	<b>19.36</b>	<b>12.22</b>	<b>18.67</b>	<b>2.77</b>	<b>4.61</b>	<b>11.06</b>	<b>5.53</b>	<b>18.90</b>	<b>17.52</b>	<b>12.22</b>	<b>22.13</b>	<b>2.77</b>	<b>16.60</b>	

## Exhibit A – Common Assumptions

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### Shared Business Plan and Budget Assumptions NERC and the Regional Entities 2015–2018 Planning Period (2016 Budget Cycle)

Throughout 2014 and early 2015, NERC and the eight Regional Entities worked to develop a common operating model<sup>37</sup> with defined roles and responsibilities that align with business planning goals, objectives, metrics, and assumptions for the electric reliability organization (ERO) Enterprise for the 2015–2018 planning period (and specifically for the 2016 budget cycle). Recently, at its November 2014 meeting, the NERC Board of Trustees (Board) approved an updated version of the [ERO Enterprise Strategic Plan](#) with newly aligned goals, objectives, and deliverables for the 2015–2018 planning period. The ERO Enterprise’s annual strategic planning and performance monitoring processes will remain transparent with results reported out 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. They also identified a number of associated objectives and deliverables expected of the ERO Enterprise. They also added four overarching performance metrics to assess the overall effectiveness of the ERO Enterprise in addressing risk to the Bulk Electric System (BES) and improving BES reliability. These metrics concentrate on measuring progress in achieving reliability results, assuring standards and compliance effectiveness, improving risk mitigation, and program execution. The following set of common assumptions have been developed to guide ERO Enterprise resource projections<sup>38</sup> for the 2015-2018 business planning and budget (BP&B) period (and specifically for the 2016 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 BP&B processes. This is in addition to the process that the Regional Entities use to obtain review of their BP&Bs by both their board and stakeholders. NERC’s review of the Regional Entity BP&Bs will be primarily focused on ensuring alignment of activities with the Strategic Plan and adequacy of resources to support performance of delegated functions and key efforts. A [2016 BP&B 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 BP&Bs.

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 bulk power system 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

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<sup>38</sup> 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.

Agreements (RDAs) expire on January 1, 2016, NERC and the Regional Entities will work collaboratively to identify any necessary revisions to the RDAs as renewal efforts continue in 2015.

NERC will enhance its oversight of the Regional Entities' performance of their delegated functions. NERC in collaboration with the Regional Entities will develop goals, measures, and reports to assess and evaluate the Regional Entities' performance of their RDAs, NERC's Rules of Procedure, the Compliance Monitoring and Enforcement Program, Commission requirements, and directives that are in effect pursuant to Section 8(c) of the RDAs. NERC will continue to provide feedback and direction to the Regional Entities on performance improvements. NERC and the Regional Entities will also continue to work collaboratively to refine and revise processes and procedures to eliminate duplication, increase operational efficiencies, enhance ERO-wide consistency, and achieve measureable reliability outcomes. NERC expects that the Regional Entities will continue to have the primary responsibility for day-to-day operations and interactions with Registered Entities.

### **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, 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 authorities) orders, directives, audits, and performance assessments;
- The implementation and deployment of the finalized EPA 111(d) and Ozone Rules and State Implementation Plans, which may have significant reliability and assessments impacts;
- The number and significance of changes to Balancing Authorities and Reliability Coordinators, prompting the need for associated certification and reliability plan assessments;
- An unanticipated rise in the rate and severity of entity violations;
- An unanticipated rise in the rate and severity of system events requiring formal investigations beyond historic volumes, and causal drivers of these events;
- New technologies and changes in resource or demand composition that require additional reliability studies and reliability risk analysis, including new techniques for conducting relevant assessments;
- Changes in applicable laws and regulations, including environmental laws and others;
- Priority risk activities identified by the Reliability Issues Steering Committee (RISC), committees of the Board, and through other stakeholder input;
- The ability of stakeholders to support the pace and scope of the various activities 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 BP&Bs 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, engage in the development and maintenance of mutual reliability activities, and provide periodic reports to pertinent audiences. A similar agreement has been developed with the NAGF in 2014.

Increased collaboration between the NATF and NERC is expected to continue into 2016 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, improvement of modeling practices, and complementary efforts on addressing the geomagnetic disturbance challenges.

### **Key Assumptions by Program Area<sup>39</sup>**

#### **Reliability Standards Program**

- The number of continent-wide standards development projects will remain at the reduced “steady state” level to be achieved in 2015.
- Continent-wide standards projects will consist primarily of conducting enhanced periodic reviews to improve the content and quality of standards, responding to identified risks to reliability, and addressing FERC directives that may arise. This activity will require the allocation of technical resources from several internal NERC departments (e.g., Reliability Assessment and Performance Analysis (RAPA), Reliability Risk Management (RRM), Compliance Analysis and Certification (CAC), and Compliance Assurance) and support from across the enterprise.
- Regional standards will be reviewed for potential opportunities to incorporate them into their associated continent-wide standards as variances through scheduled enhanced periodic reviews. Regional and NERC standards development processes will have to be incorporated in order to accomplish this task. Each Regional Entity will work with NERC and possibly other Regional Entities on projects where there is a regional standard/variance. Regional standards development activity will be driven by requests the Regional Entity may receive or issues the Regional Entity may identify. Regional standards development activity is expected to remain low.
- In coordination with Standard Drafting Teams (SDTs) and consistent with current approaches, Regional Entities may support outreach during standard development. Additionally, following FERC approval, Regions will assist the transition of standards to compliance monitoring and enforcement supporting industry and auditor training, or providing information regarding the intent of the standard.
- The number of interpretations are expected to remain low. However, guidance requests associated with the implementation of Standards may increase.
- NERC standards staff will remain at the projected 2015 level.

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

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<sup>39</sup> These statements, which are generally organized by program area, are intended to help generally guide resource allocation decision making in the development of the 2016 business plans and budgets.



### ***Compliance and Enforcement***

- The implementation of the risk-based CMEP, as transformed through the Reliability Assurance Initiative (RAI), will require the allocation of dedicated resources from both NERC and the Regional Entities for both compliance and enforcement.
  - Regional Entities should anticipate at least the same level of participation in implementing the risk-based CMEP as they did in developing it under RAI in 2014 and possibly more as they operationally implement its components for the first time in 2015.
- NERC and the Regional Entities are expected to utilize consistent compliance monitoring practices and focus on higher reliability risks to increase efficiency and mitigate overall compliance costs for registered entities.
- 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 guidelines. This may require additional resources or a reallocation of resources to attain and maintain these competencies (see below).
- NERC and the Regional Entities are planning to support the training and education requirements and guidelines 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:
  - Reliability Standards Audit Worksheets (RSAWs), bulletins, compliance analysis reports (CARs), training documents, and other related compliance guidance are provided to compliance personnel and other staff, as necessary.
  - Compliance Auditor job descriptions are reviewed and properly reflect the guidance provided in the *Compliance Auditor Capabilities and Competency Guide*.
  - A gap analysis has been performed to identify both individual training needs and organizational compliance resource needs to assure properly staffed engagements capable of performing work associated with identified engagement scope (e.g., appropriate individual and team knowledge, education and collective skills).
  - A process is in place for personnel to acknowledge their commitment to professional standards, ethical principles, and rules of conduct.
  - An assessment process is in place to evaluate audit team competencies and capability needs.
  - A training program is in place that addresses initial and continuing training for capability and competency development. Regional Entities will continue to budget with a strategic objective of acquiring, engaging, and retaining highly qualified talent suited to the mission.
- An assessment project was completed in 2014 to evaluate software systems used for compliance, registration, analysis and tracking, which may result in changing or replacing existing systems in the future. Until a decision is made by the EROEMG to change or replace existing systems, NERC and the Regional Entities should continue to maintain contractor and consultant services to support existing systems.

- Risk-based monitoring activities are expected to increase through implementation of the risk-based CMEP, but they should have little effect on overall resource requirements.
- Non-critical infrastructure protection (CIP) violations are expected to continue decreasing as most registered entities have been audited and the standards and RSAWs have matured.
- CIP compliance personnel will need to support the transition from the cyber-security Reliability Standards version 3 (V3) to V5 and provide support to entities undergoing a CIP audit:
  - NERC will lead the CIP V5 training development, coordination, and facilitation for the ERO CIP auditors and industry outreach. ERO CIP auditors will support these activities in collaboration with NERC, as needed, to ensure appropriate knowledge and guidance are developed, understood, and administered.
  - Potential increase in resources may be necessary to support compliance and enforcement activities related to CIP V5 Standards in 2016 and 2017.
  - Additional resource considerations should be given to managing the increased amount of Registered Entities applicable to the CIP Standards due to the addition of “low impact” requirements that are forecast to come into effect in 2017 and 2018.
  - Development of guidance documents for CIP V5 is expected to decrease in 2016.
  - Additional training requirements will be necessary to support the transition affecting the annual training commitments.
- Additional resources may be necessary for increased Physical Security activities as the CIP-014 Reliability Standard becomes effective. Similar to the cyber security Reliability Standards activities, industry and auditor training will be developed, along with increased guidance.
- As the depth of focused analysis of reliability performance and events across NERC improves, any identification of possible gaps in standards and compliance monitoring could potentially influence this program area.

#### ***Organization Registration and Certification***

- Three central reforms have been identified as a result of the completion of the risk-based registration activity in 2014:
  - Modifications to the NERC Registry Criteria have been proposed, including the deactivation of three functional entities (Purchasing-Selling Entities, Interchange Authorities, and Load-Serving Entities), modifications to the threshold criteria for Distribution Providers, and alignment of five registration categories with the BES definition.
  - The risk-based application of Reliability Standards, which establishes subset lists of Reliability Standards for registered entity functions (e.g., Under-Frequency Load Shedding-only Distribution Providers), has been incorporated into the rules.
  - Procedural improvements to the registration process have been added.

These proposed reforms strengthen the registration process and are an important milestone in NERC’s approach to managing risks to reliability. Deployments of these revisions to the registration process will take place in 2015 and are outlined in an implementation plan; however, the implementation timelines are contingent on FERC’s response to the NERC filing.

- No further enhancements are anticipated to support the ongoing next phases of this activity.
- Based on the 2015 technical assessment of the Phase 2 registered functions (Transmission Operator, Transmission Owner, Generator Owner, and Generator Operator), support for the development of subsets of standards may be necessary.
- Certification program assessment will result in enhancements to the current program, targeted for implementation in 2016.
- Planned oversight activities for 2016 will be aligned with the ERO Enterprise Operating Model and may affect 2016 resource allocation, but they should have little effect on overall NERC resource requirements. NERC understands that each regional entity will need to evaluate their individual resource needs and allocations.

### **Reliability Assessment and Performance Analysis Program (RAPA)**

- Regional Entity resources are needed to manage the process execution, technical validation of the definition and exception requests, self-determined notification submittals, and periodic reviews of network changes affecting BES determinations, as well as requests for registration and certification reviews.
- RAPA resources within Regional Entities and NERC will be required across the enterprise to jointly expand the assessment and performance analysis capabilities to accomplish the following:
  - Develop and implement expanded and enhanced enterprise-based data collection and analysis systems and capabilities for performance analyses.
  - Support the integration of RAPA information systems for assessments and associated data requirements, with focus on independent and technically sound reliability assessments supporting delivery of high quality reports (e.g., long-term reliability assessment, seasonal assessments, special or scenario assessments, and state of reliability report).
  - Continue the enhancement of the NERC oversight of Regional Entity delegated activities through quality and timeliness metrics supporting the effectiveness of ERO activities to improve system analysis, assessments, and reliability performance, as well as performance analyses models along with data characteristics reflecting the reliability behavior from the changing resource mix.
  - Develop assessment and performance analysis by expanding the use of advanced techniques and tools for resource analysis to perform probabilistic and scenario evaluations that address the impacts of integrating new technologies, changing resource mix or demand composition, and environmental-related regulations or legislation.
  - Effectively implement long-term reliability assessment coordination and collaboration efforts across NERC and the Regional Entities enabling them to independently evaluate the reliability characteristics and behavior of the bulk power system.
  - Provide technical resources and expertise to perform analyses as needed to support and determine risk priorities for standards development, compliance, and enforcement activities.
  - Develop appropriately tailored analysis and overall assessment, including guidance for registered entities, of high impact, low frequency bulk power system risks, including

physical security, geomagnetic disturbance (GMD) vulnerability, planning guides, and planning standards.

- Identification of the key reliability risks and appropriate risk control projects designed to enhance reliability or mitigate risks will be required.
- The group will support the development of long-term sustainable Interconnection-based models that exhibit the accuracy and fidelity reflecting actual bulk power system reliability performance and dynamic conditions. These models can integrate the reliability behavior of changing resource mixes and the technology of both generation and loads:
  - Metrics demonstrating the accuracy of the powerflow and dynamics models replicating actual system conditions and reliability behavior will be developed and tracked.
  - NERC and the Regional Entities will provide technical resources to oversee the effective and continuous improvement of the models that incorporate recognition of reliability behavior of loads and generation associated with the changing resource mix.
  - The compilation of long-term sustainable interconnection-wide powerflow and dynamics cases under Reliability Standards MOD-032 and MOD-033 will be supported.
  - Essential Reliability Services measures and framework for assessments will be developed, refined, and implemented.
- 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 special assessment, scenario, or other technical research efforts. It could potentially impact both NERC and Regional Entity budgets:
  - If significant events occur, contractor services may be required to support wide-area system analyses and root cause evaluations.
  - Contractor services may be necessary to support special assessment analyses (e.g., EPA 111(d) evaluation or Essential Reliability Services), scenario analyses (e.g., polar vortex-like severe event analyses and gas-electric interdependence), and other technical research efforts (e.g., similar to GMD, and FAC-003 Vegetation Management).

#### **Training, Education, and Operator Certification Program**

- NERC will continue to budget for the unified learning management system (LMS) focused primarily on Regional Entity audit staff initially, with near-term consideration for risk-based compliance monitoring and enforcement related staff. Future inclusion of other ERO functional areas is expected as potential requirements present themselves during system development. NERC will 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.
- The implementation of compliance auditor training and competencies are expected to influence the allocation of training resources throughout the enterprise. NERC will continue the development of compliance training modules with assistance of qualified subject matter experts from the Regional Entities and incorporation of outside expertise/services.

- Additional resources may be required, and increases to NERC and Regional Entity training budgets could be expected, to support certain training activities of the risk-based CMEP.
  - Regional Entities should allocate resources to meet the training requirements for the compliance and enforcement staff that are associated with the implementation of the risk-based CMEP.
- The Regional Entities, in collaboration with NERC, are expected to help assess and determine training needs. This includes flexibility in approach between Regional Entities, and anticipating areas of support for their staffs and stakeholders for standards, compliance monitoring and enforcement, situational awareness and event analysis, and information technology (IT). Addressing these needs will likely require additional resource allocation and budgeting considerations.
- NERC, in collaboration with Regional Entities, will develop and deliver additional CIP V5 training to support the transition for low impact entities. This may require consideration for additional funding of the NERC training and education budget.
- The Operating Personnel Certification program is expected to remain at a steady state with no additional resources required from the Regional Entities.
- Contractor and consultant services may be necessary to maintain the continued support and technical expertise associated with some enterprise training and education activities.

#### **Situation Awareness and Infrastructure Security (Events Analysis)**

- NERC will continue to budget and manage event analysis and situational awareness separate from the compliance and enforcement functions.
- Participation in the ERO event analysis process will continue at or above current levels through 2016.
- NERC will continue to budget and incur costs to operate and maintain the software applications and systems known as situational awareness for NERC, FERC, and the Regional Entities (Version 2 (SAFNrv2)). Additional resource investments may be required to enhance the capabilities of SAFNrv2 throughout the planning period. Any such investments will be NERC funded and not result in an allocation of cost to the Regional Entities.
- Regional Entities will continue to budget for event analysis and situational awareness activities based on their respective Region's historical workload, as they did in the past. Some Regional Entities will continue to allocate resources as part of the activities accounted for under their RAPA program, and should clearly delineate where the activities' resources are budgeted.
- Regional Entities will support critical infrastructure security activities in the context of situation awareness, using those designated resources, unless specifically budgeted and managed elsewhere.

#### **ES-ISAC<sup>40</sup>**

- 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.

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<sup>40</sup> NERC has dissolved the Critical Infrastructure Department (CID) and realigned those resources and functions mostly under ES-ISAC, with some under Compliance Assurance.

- 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.
- 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 Entity, no Regional Entity funding is anticipated.
- The strategic review by the Electricity Subsector Coordinating Council (ESCC) of the ES-ISAC may affect resource and funding requirements.
- NERC will continue to manage CRISP and may advance other security management tools.

### **Information Technology and Project Management Office (PMO)**

- NERC and the Regional Entities will collaboratively work to refine existing strategies and governance and procurement practices applicable to the development, operation, and maintenance of enterprise architecture, including software and data systems supporting both NERC and Regional Entity operations.
- NERC's BP&B will include ongoing funding support for the development, operation, and maintenance of NERC 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 BP&B. Regional Entities should include appropriate funding for applications and supporting systems designed to satisfy Regional business needs (if not within the mutually agreed upon scope of the ERO Enterprise applications that are funded by NERC).
- 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.
- Ongoing investments will be required to develop, implement, and maintain enhancements to the NERC and Regional Entity websites, ERO applications, and ERO data repositories, which are required to improve access to information and data. NERC and the Regional Entities will separately fund any enhancements to their own websites.
- NERC anticipates that NERC's management of NERCnet will be transferred to the Eastern Interconnect Data Sharing Network (EIDSN) during 2015. Entities currently using NERCnet may see an increase or decrease in their costs going forward depending upon EIDSN costs and billing arrangements. Users should consult with the EIDSN for further information.
- 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**

- A common ERO Enterprise risk management framework will be developed and implemented to focus on identifying, assessing, prioritizing, and mitigating risks associated with the performance of both NERC and the Regional Entities. This will be a multi-year activity.

- NERC’s Director of Risk Management and Internal Controls will be responsible for the overall development of this framework, with the approval of the ERO Regional Executives and under the oversight of NERC’s Enterprise Wide Risk Management Committee.
- NERC will work, in collaboration with Regional Entities, to develop and implement this framework. Regional Entities may add risk management and internal control resources as needed.

# Exhibit B – Application of NERC Section 215 Criteria

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## DISCUSSION OF HOW THE NERC MAJOR ACTIVITIES 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

### Introduction

This Exhibit discusses how the major activities in NERC’s 2016 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.<sup>1</sup> NERC submitted the written criteria to the Commission in a compliance filing dated February 21, 2013 in Docket No. FA11-21-000.<sup>2</sup> The Commission approved the NERC written criteria, with modifications, in an order issued in that docket on April 18, 2013.<sup>3</sup> The NERC written criteria as used in this Exhibit incorporate the modifications specified in the Compliance Order.<sup>4</sup>

### **II. Reliability Standards Program 2016 Major Activities**

The major activities of the Reliability Standards Program are described at pages 20-22 of the 2016 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 high-quality, 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 final quality review for Regional Entity Standards development processes, presents proposed Regional standards to the NERC

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<sup>1</sup> *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 ¶ 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.

<sup>2</sup> *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”).

<sup>3</sup> *North American Electric Reliability Corporation, Order on Compliance*, 143 FERC ¶ 61,052 (2013) (“Compliance Order”).

<sup>4</sup> 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.



Board, and prepares submissions for approval of regional standards to the applicable regulatory authorities in the U.S. and Canada.

For 2016, the major activities of the Reliability Standards Program will focus on (1) completing addressing existing FERC directives and remaining recommendations for retirements from the Paragraph 81 project and the Independent Experts Review Project; (2) addressing new FERC directives as necessary through the standards process; and (3) addressing reliability risks identified through the Reliability Risk Management Process or by the NERC Reliability Issues Steering Committee for which a Reliability Standard is part of the solution.

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.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 §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, 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?

**III. Compliance Monitoring and Enforcement and Organization Registration and Certification Program Area 2016 Major Activities**

The major activities of the Compliance Monitoring and Enforcement and Organization Registration and Certification Program Area are described at pages 24-27, 29-31 and 33-37 of the 2016 Business Plan and Budget. This Program Area is comprised of two operational groups: (1) Reliability Assurance and (2) Compliance Enforcement. Reliability Assurance in turn is comprised of Compliance Assurance, Compliance Analysis and Certification, and Registration groups.

The Compliance Assurance 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) development and delivery of comprehensive and ongoing training on risk-based compliance monitoring and enforcement for ERO Enterprise staff; (3) oversight of the Regional Entities’ delegated compliance functions, including consistent and uniform CMEP planning, implementation, and reporting, compliance operations and coordination, and auditor training; (4) 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; (5) CIP-014-1 training and outreach activities relating to effective implementation of the Physical Security Standard; (6) development of baseline monitoring requirements; (7) development and maintenance of Reliability Standard Audit Worksheets (RSAWs); (8) support for Regional Entity and industry committees, working groups, and task forces, such as the Compliance and Certification Committee; and (9) development and delivery, supported by Regional Entities, of guidance to the ERO Enterprise for Reliability Standards associated with risk elements and training for every Reliability Standard approved by FERC.

The Compliance Assurance group provides compliance information, statistics and perspectives to standard drafting team; collaborates with industry and the Standards department in the standards development process by providing draft RSAW guidance and input on the auditability and enforceability of draft standards; promotes registered entities’ development of effective compliance programs and internal controls; and provides industry focused outreach events and webinars on the ERO Enterprise’s approaches to risk-based CMEP activities. As part of the implementation of the risk-based CMEP, the Compliance Assurance group along with the Compliance Enforcement group regularly addresses continued training of ERO Enterprise staff, outreach to industry, oversight of Regional Entity implementation of risk-based processes, and development and benchmarking of objective metrics to support measures of success for the risk-based CMEP. During 2016, the Compliance Assurance group’s implementation of the risk-based CMEP will evolve into evaluation of how risk-based compliance monitoring concepts are utilized, the determinations made when using these concepts, and the results of their practical application by Regional Entities. In addition, the Compliance Assurance group will continue to assist in the smooth transition from Version 3 to Version 5 of the CIP Standards by providing training, webinars and other forms of outreach.

The ongoing and new major activities of the Compliance Assurance group for 2016 will include: developing and implementing a training program to support implementation of the common audit procedures and the ERO Auditor Capabilities and Competencies Guide; working with the Compliance Enforcement and Information Technology departments and with Regional Entity staffs regarding improvements in the existing Compliance, Reporting, Analysis Tracking System and other compliance tools to support risk-based 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 consistent implementation of risk-based techniques and principles; consolidating to a common set of RSAWs, or successors, for all standards; creating technically sound training to support compliance methodologies and testing approaches for Reliability Standards; supporting the successful transition to CIP Version 5 Standards that become effective in 2016; and continuing to monitor and support effective implementation and monitoring of the Physical Security Reliability Standard.

The Compliance Analysis and Certification and Registration groups are 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 commensurate with risk; ensuring all Reliability Coordinators (“RC”), Balancing Authorities (“BA”) and Transmission Operators (“TOP”) are certified; ensuring industry maintains effective internal controls programs for reliability assurance risk, and ensuring that compliance gaps identified in reportable events are assessed and addressed if appropriate. Major activities of this group include (1) registration of BES users, owners, and operators who are responsible for compliance with FERC-approved Reliability Standards; (2) certification of RC, BA and TOP; (3) conducting compliance investigations to identify possible violations of Reliability Standards in response to complaints, BES disturbances or other similar triggers; (4) conducting compliance evaluations with Regional Entity staff to confirm that qualified events and disturbances are evaluated against relevant Reliability Standards and to ensure formal compliance monitoring occurs if indicated (5) processing complaints alleging violations of Reliability Standards; (6) conducting activities to reasonably assure the ERO that certain actions have been taken as reported in response to NERC Alerts or guidance to industry; and (7) oversight of Regional Entity registration, certification, compliance, investigation and complaint programs and processes.

The major activities of the Compliance Analysis, Registration and Certification group for 2016 will include continuation of current initiatives, including evaluation of the current certification program and implementation of any recommended changes, as well as enhanced oversight and quality assurance reviews of Regional Entity performance of delegated registration, certification, investigations and complaint duties.

The Compliance Enforcement department is responsible for overseeing enforcement processes, the application of penalties or sanctions, and activities to mitigate and prevent recurrence of noncompliances with Reliability Standards. The Department works collaboratively with the Regional Entities to ensure consistent and effective implementation of the risk-based CMEP. It also focuses on ensuring that the ERO Enterprise dedicates resources to the matters that pose the greatest risk to reliability. The Compliance Enforcement department 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; 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; files notices of

penalty (“NOP”) and other submittals associated with noncompliances discovered through Regional Entity compliance, monitoring and enforcement activities; processes and files NOPs and other submittals discovered through NERC-led investigations and audits; collaborates with other NERC departments, including Compliance Assurance, Reliability Standards and Event Analysis; delivers training of the ERO Enterprise staff and outreach to registered entities on compliance and enforcement topics; and coordinates with the Regional Entities on implementation of risk-based processes.

During 2016, the Compliance Enforcement department will focus on the successful implementation of, as well as refining and improving, the risk-based CMEP. The Compliance Enforcement department will provide training to Regional Entity staff on the risk-based CMEP processes, including compliance exceptions and the self-logging program. Specific activities of the Compliance Enforcement department in 2016 will include refining and improving risk-based CMEP processes; implementing in a transparent manner an ERO Enterprise enforcement philosophy that is risk-focused and drives desired behaviors by registered entities; expanding the feedback loop of information from Compliance Enforcement to Reliability Standards and other program areas; and working closely with NERC’s Compliance Assurance group and Information Technology department and with Regional Entity staffs regarding the improvements in the existing Compliance Reporting Analysis Tracking System and other compliance tools to support risk-based activities.

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 §400 and 500 and Appendices 4B, 4C, 5A, 5B and 5C.)

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 2016 Major Activities**

The major activities of the Reliability Assessment and Performance Analysis (“RAPA”) Program are described at pages 39-50 of the 2016 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. The Program 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. RAPA focuses on developing a technical framework and understanding of the reliability risks facing the industry. 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; development of focused reliability assessments based on emerging reliability risks and other reliability issues garnering an in-depth analysis; performance analysis and recommendations of historical reliability and associated trends, relying on data integrity and consistent methodology, supporting credible recommendations and guidance; reliability assessment and bulk system evaluation model development for analyzing steady-state and dynamic conditions, including frequency, Essential Reliability Services, and stability aspects; assurance oversight that electrical elements necessary for the reliable operation of the BPS are appropriately identified as BES Elements; reliability risk program management for identifying and improving key risk areas using analyses of reliability gaps, risks, controls, and management efforts, as well as integration with Reliability Issues Steering Committee, Long-Term Reliability Assessment, and State of Reliability reports; management of reliability risk program priorities to align with the Strategic Plan and business plan and budget for appropriate level of resources, timing, completion and execution; and establishing reliability 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 works with industry leaders to create a reliability strategy that is relevant, timely, and effective at addressing the most important reliability risks. RAPA's efforts are focused on reliability risk analysis and management, including reliability risk management programs relating to changing resource mix, risks in resource planning, protection system reliability, protection system misoperations, uncoordinated protection systems, extreme physical events, availability of real-time tools and monitoring (loss of situational awareness), and right-of-way clearances. RAPA also collects transmission outage, generator performance, and demand response data in a common format using various industry databases, and uses the data to develop and report on transmission metrics that analyze outage frequency, duration, causes, and other factors related to transmission outages and generator performance. RAPA also collects and analyzes detailed information about individual outage events. Further, RAPA performs reliability assessments that evaluate the expected reliability behavior of the BPS through extensive deterministic and probabilistic analyses to identify potential reliability conditions that could compromise overall reliability. Each year, RAPA performs independent assessments and prepares reports on the overall reliability, adequacy and associated risks for the upcoming summer and winter seasons and the long term, ten year period. RAPA also conducts special reliability assessments as emerging risks and potential impacts to reliability are identified and identifies recommendations and guidance actions that may be warranted. Key special assessments in 2016 are expected to include a special assessment of the reliability implications of the U.S. EPA's final Clean Power Plan rule and a comprehensive Essential Reliability Services assessment. RAPA coordinates forecast reliability data between planning areas, the eight Regional Entities, and governmental organizations, and produces the Electricity Supply and Demand Database.

The RAPA Program works closely with other organizations such as the Electric Power Research Institute, Department of Energy, Institute of Electrical and Electronics Engineers, Institute of Nuclear Power Operations, North American Transmission Forum, North American Generation Forum, Canadian Electricity Association, Interstate Natural Gas Association of America, and Natural Gas Supply Association, on a number of energy industry reliability issues such as geomagnetic disturbances, vegetation management, variable generation integration, and interdependency of gas and electric systems.

The ongoing and new major activities of the RAPA Program for 2016 include: issuing assessment reliability reports, guidelines, recommendations and alerts as needed; preparing the long-term and



seasonal reliability assessments; conducting special assessments addressing key reliability issues, including special assessment reports as noted above; 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-checking systems for reliability assessment, system analysis and risk analysis; providing periodic updates on trends and measures of BES reliability; developing a risk registry and a systematic prioritization process consistent with the RISC framework and supporting BES risk profile measurement and assessment of standards; 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 RAPA; advancing NERC's analytical capability for identifying and determining reliability risks and conducting various reliability assessments; providing support and leadership to the NERC Planning Committee and to the subcommittees, working groups and task forces of NERC standing committees; assisting in the development of approaches to registration and providing input in support of the development of CMEP risk elements 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 RAPA team that encompasses risk-informed approaches and structured methodology to identify and address reliability risks; 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; designating, developing, and supporting interconnection-wide model-building groups; and developing a structured approach to evaluate and improve system models, model validation, system analysis, and assessments. In addition, RAPA will continue to perform reviews, evaluations and confirmations of proposed changes to BES elements by registered entities.

The RAPA Program's top reliability risk projects (as identified by the RISC) for 2016 are expected to include: Essential Reliability Services Special Assessment Phase II (scenario analyses of different levels of Essential Reliability Services); development of standardized powerflow models and dynamic modeling components; load composition modeling analysis (working with the Planning Committee to develop a guideline for performing analysis of loads to determine system needs for various essential reliability services); model validation of powerflow and dynamics analysis models; frequency response; support for IEEE 547-Standards for interconnecting distributed resources with electric power systems; gas-electric interdependencies and infrastructure assessment; environmental regulations special assessment; protection system reliability analysis; guidelines for coordination of protection systems and other devices (including 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); emergency transformer replacement (encouraging industry participation in coordination support programs such as the Spare Equipment Database and the Spare Transformer Equipment Program); and system performance improvement (working with industry to minimize setting errors, maintain microprocessor-based relay firmware, and apply power line communication-aided protection).

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?

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?

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) 2016 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 at pages 52-54 and 56-57 of the 2016 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. Through awareness and continuous assessment, RRM identifies potential reliability risks to the BES, ensures that industry is well informed of system events, emerging trends, risk analysis, and lessons learned, and provides data and analysis to inform other aspects of NERC’s statutory functions.

The Situation Awareness department along with the Regional Entities monitors BES conditions, significant occurrences and emerging risks, and threats across the 14 Reliability Coordinator regions in North America. Situation Awareness also supports development and publication of NERC Alerts and awareness products, and facilitates information sharing among industry, Regions and government during crisis situations and major system disturbances. Situation Awareness is engaged in enhancement, replacement, streamlining or modification of several reliability-related situation awareness and monitoring tools, including SAFNRv2, replacement of the current secure alert tool, and retirement of the NERCnet – Interconnection Security Network and initiation of service using a new communication network developed, sponsored and managed by the Eastern Interconnection Data Sharing Network consortium. The Situation Awareness Department uses the following reliability-related tools to support its activities: Resource Adequacy (ACE Frequency) Tool; Inadvertent Interchange; Frequency Monitoring and Analysis Tool; Intelligent Alarms Tool; Area Interchange Error Modeling Tool; and Genscape (PowerIQ and PowerRT tools).

The ongoing and new major activities of the Situation Awareness department for 2016 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; conducting the annual NERC Monitoring and Situational Awareness Conference and Human Performance Conference; and administering the NERC Alerts process as specified in §810 of the Rules of Procedure to issue Advisory (Level 1) Alerts on significant and emerging reliability and security related topics, and facilitate the tracking of actions specified in Recommendation (Level 2) and Essential Action (Level 3) Alerts.

The Event Analysis department performs assessments of the reliability and adequacy of the BES to identify 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. Event Analysis conducts analyses to determine the causes of events, promptly assures tracking of corrective actions to prevent recurrence, and provides lessons learned to the industry. Event Analysis analyzes all reportable events for sequence of events, root cause,

risks to reliability, and mitigation and ensures that the industry is well-informed of system events, emerging trends, risk analysis, lessons learned, and expected actions. 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. Event Analysis works in collaboration with and supports the activities of the NERC Operating Committee's Event Analysis Subcommittee, the North American Transmission Forum, the North American Generator Forum, and other industry groups.

The ongoing and new major activities for 2016 for the Event Analysis department include: (1) working with Regional Entities to obtain and review information from registered entities on 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) continuing to refine risk-based methodologies to support better 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 training (webinars, workshops and conference support) to inform industry and the ERO of lessons learned, root cause analysis, trends, human performance, and cold weather preparedness and recommendations; (6) developing reliability recommendations and alerts as needed; (7) tracking industry accountability for critical reliability recommendations; (8) ensuring that industry is well informed of system events, emerging trends, risk analysis, lessons learned, and expected actions; (9) conducting major event analysis and reporting of major findings and recommendations that will improve reliability; and (10) 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 §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. Electricity Sector Information Sharing and Analysis Center 2016 Major Activities**

The major activities of the Electricity Sector Information Sharing and Analysis Center (“ES-ISAC”) are described at pages 59-62 of the 2016 Business Plan and Budget. During 2015, NERC combined the Critical Infrastructure Department into the ES-ISAC for operational and financial reporting purposes. 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 regarding physical security and cybersecurity events affecting the BES. ES-ISAC develops alerts and notifications for distribution to registered entities and uses its secure portal to receive voluntary 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 also maintains a seat on

the operations floor of the National Cybersecurity and Communications Integration Center within the Department of Homeland Security, which is the hub for real-time, classified threats and vulnerability work. The ES-ISAC maintains other information-sharing relationships through the U.S. and Canadian governments and coordinates information sharing with agencies in Australia, New Zealand, and the United Kingdom.

ES-ISAC also supports an annual grid security conference and a biennial Grid Security Exercise. ES-ISAC works with industry and governmental entities to examine critical infrastructure protection policy issues and provides staff support to the NERC Critical Infrastructure Protection Committee. ES-ISAC also conducts Cyber Risk Preparedness Assessments (“CRPA”) for registered entities.

The ongoing and new major activities of the ES-ISAC for 2016 include: improving the usability and functionality of the information-sharing portal, including continuing development of a new portal platform; advancing information collection and analytical capabilities, portal monitoring, and information sharing; ongoing improvements in CRISP program management; enhancing industry engagement; and continuing to work with the ESSC to build a more effective and responsive ES-ISAC. The ES-ISAC will continue to conduct CRPAs for registered entities and will continue to develop and deploy a cyber risk preparednesstoolkit to allow industry to conduct self-assessments of cyber risk preparedness. The ES-ISAC will also continue to work with vendors to develop and license cyber awareness and intelligence tools that collect and analyze information and alert the user about selected threats. ES-ISAC will continue to usesoftware integration support services, the analyst workbench toolset, and intelligence services from specialized security information services providers. Finally, ES-ISAC plans to continue webinars and other technical outreach support to industry in addressing the Aurora Vulnerability.

The major activities of the ES-ISAC 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? (2) Monitoring, event analysis and investigation of Bulk Power System major events, off-normal occurrences and near-miss events?

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 §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. Training, Education, and Operator Certification Program 2016 Major Activities**

The major activities of the Training, Education, and Operator Certification Program are described at pages 66-68 of the 2016 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 and education for industry participants on the requirements of Reliability Standards, the Reliability Standards development process, and the compliance monitoring and enforcement process. 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 required to work in system control centers across North America for over 6,000 system operators. The Training and Education Program prepares operators for complying with requirements of Reliability Standards and appropriately operating the BES during normal and emergency operations.

The major activities of the Training, Education, and Operator Certification Program for 2016 include providing training and education for ERO personnel and industry in the following areas: Reliability Standards compliance, emerging cyber-related issues; auditor skills and consistent audit and investigation techniques and standards compliance reviews, including risk-based compliance monitoring and enforcement and other improvements in compliance and enforcement practices; development and implementation of clear and technically sound Reliability Standards; lessons learned and trends from events, and identified themes from trending and common cause analysis; effective root, apparent and common cause analysis methods; effective compliance cultures with practices, procedures and controls to address reliability risks; quality improvement of registered entity self-reporting and self-certification; entity registration processes, issues and alternatives; human performance fundamentals; and developing and incorporating a systematic approach to ongoing training. In addition, the Training, Education, and Operator Certification Program will continue to work with industry stakeholders and the System Operator Certification exam vendor to create certification exams that will promote reliability of the BPS.

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 §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 Commission orders?

### **VIII. Administrative Services 2016 Major Activities**

NERC’s Administrative Services Departments are Technical Committees and Member Forums (for which no funding for activities is budgeted for 2016), General and Administrative, Legal and Regulatory, Information Technology (“IT”), Human Resources, and Finance and Accounting. The major activities of these departments are described at pages 70-78 of the 2016 Business Plan and Budget. General and Administrative includes the administration and general management of the organization, the Chief Executive Officer and Chief Reliability Officer, Board of Trustees fees and expenses, communications, external affairs and government relations, and office rent. Legal and Regulatory provides legal support to the organization, including to management, and the Reliability Standards, Compliance Analysis and Certification and Registration, 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, succession planning, and the employee performance appraisal and incentive structure processes, as well as management and staff training and development activities. Human Resources also obtains compensation studies and other compensation consulting services when needed. Finance and Accounting manages all finance and accounting functions of NERC, including payroll, 401(k), 457(b) and 457(f) 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 the major activities of Finance and Accounting is §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?

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 sub-criterion 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 business plan and budget.

A determination that an activity falls within FPA §215 does not necessarily mean that NERC will propose or undertake such activity. The determination of whether an activity falling under FPA §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 each distinct from the others. 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<sup>45</sup> 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, off-normal 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

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<sup>45</sup> 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.



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, qualifications and 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?<sup>46</sup>
- 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, off-normal 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:
  - 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?

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<sup>46</sup> Although certification of system operating personnel is an activity falling within the scope of, and eligible to be funded pursuant to, FPA §215, NERC strives to fully fund the costs of this activity through fees charged to participants.

- 4. 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 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 to maintain 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	2015 BUDGET	2016 BUDGET	Inc(Dec) v 2015
<b>Compliance Assurance</b>	Reliability Assurance Initiative	388,000	200,000	(188,000)
	<b>Compliance Assurance</b>	<b>388,000</b>	<b>200,000</b>	<b>(188,000)</b>
<b>Reliability Risk Mgmt</b>	Reliability Assurance Project Support	-	56,000	56,000
	<b>Reliability Risk Management</b>	<b>-</b>	<b>56,000</b>	<b>56,000</b>
<b>Compliance Investigation, Reg and Cert</b>				
	Risk-based Registration Phase 2 - Consulting Support	-	50,000	50,000
	<b>Compliance Investigation, Reg and Cert</b>	<b>-</b>	<b>50,000</b>	<b>50,000</b>
<b>Reliability Assessments and System Analysis</b>				
	Reliability affects of GMD	242,500	100,000	(142,500)
	Vegetation Research (FAC 3)	242,500	-	(242,500)
	Reliability consulting support	169,750	475,000	305,250
	GADS/TADS/DADS/SED	300,700	509,039	208,339
	<b>Reliability Assessments and Performance Analysis</b>	<b>955,450</b>	<b>1,084,039</b>	<b>128,589</b>
<b>Situation Awareness</b>				
	Reliability Tools	472,212	576,300	104,088
	Secure Alerting System	-	141,000	141,000
	SAFNR - Phase II	459,609	438,200	(21,409)
	NERCnet	145,500	-	(145,500)
	Communication network (NERCnet replacement)	-	55,975	55,975
	<b>Situation Awareness</b>	<b>1,077,321</b>	<b>1,211,475</b>	<b>134,154</b>
<b>ES-ISAC</b>				
	CIPC Support	184,300	-	(184,300)
	GridEx Support	242,500	-	(242,500)
	Program-Level Capabilities	499,500	499,500	-
	Software & Services	113,285	113,285	-
	Events & Outreach	50,550	50,550	-
	CRISP	7,666,055	5,888,594	(1,777,461)
	<b>Total ES-ISAC</b>	<b>8,756,190</b>	<b>6,551,929</b>	<b>(2,204,261)</b>
<b>Operator Certification</b>				
	System Operator Testing Expenses	57,618	59,400	1,782
	System Operator Examination Development	66,176	69,000	2,824
	Job Task Analysis	25,784	-	(25,784)
	Database Development	19,400	24,000	4,600
	Database Maintenance	23,746	25,200	1,454
	SOCCEd Database Improvement Project (funded from Working Capital generated from fees in excess of expenses)	200,000	150,000	(50,000)
	<b>Total System Operator Certification</b>	<b>392,724</b>	<b>327,600</b>	<b>(65,124)</b>
<b>Training &amp; Education</b>				
	Continuing Education Program	163,930	133,200	(30,730)
	Web-based course hosting (Learning Management System)	29,800	55,000	25,200
	Course development and Support - External Training	136,576	125,000	(11,576)
	NERC Staff Technical Training	29,100	35,000	5,900
	<b>Total Continuing Education, Training &amp; Education</b>	<b>359,406</b>	<b>348,200</b>	<b>(11,206)</b>
	<b>Training, Education and Operator Certification</b>	<b>752,130</b>	<b>675,800</b>	<b>(76,330)</b>

Exhibit B — Application of NERC Section 215 Criteria

Program	Consultants & Contracts	2015 BUDGET	2016 BUDGET	Inc(Dec) v 2015
<b>General &amp; Administrative</b>				
	Communications support	15,000	15,000	-
	<b>General &amp; Administrative</b>	<b>15,000</b>	<b>95,000</b>	<b>80,000</b>
<b>Information Technology</b>				
	ERO Application Development & Support	829,350	988,671	159,321
	ERO Data Analysis	100,000	100,000	-
	Applications Enhancements, Consulting and Help Desk Support	800,250	1,006,000	205,750
	<b>Information Technology</b>	<b>1,729,600</b>	<b>2,094,671</b>	<b>365,071</b>
<b>Human Resources</b>				
	Training and Development	150,350	325,000	174,650
	Compensation Consulting	29,100	100,000	70,900
	Employee, industry and Board Surveys	43,650	50,000	6,350
	HR Consulting Services	75,175	75,000	(175)
	<b>Human Resources</b>	<b>298,275</b>	<b>550,000</b>	<b>251,725</b>
<b>Finance and Accounting</b>				
	Internal Controls and Outside Auditor Consulting Support	242,500	200,000	(42,500)
	Finance and Accounting Support	97,000	97,000	-
	<b>Finance and Accounting</b>	<b>339,500</b>	<b>297,000</b>	<b>(42,500)</b>
	<b>TOTAL CONSULTANTS AND CONTRACTS</b>	<b>14,311,466</b>	<b>12,865,914</b>	<b>(1,445,553)</b>

## 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.<sup>47</sup> The total size of the non-revolving credit facility is \$7.5M, 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 FERC-approved 2014 budget, the company made an initial draw of \$1.265M at the end of January 2014 related to 2013 expenditures. The company recorded new capital investments of approximately \$1.65M in 2013 related to the development of software applications and IT hardware,<sup>48</sup> a portion of which was financed with the proceeds from this initial draw. This borrowing is amortized over three years, commencing January 31, 2014, and can be prepaid without penalty. A balance of \$1.416M was available for draw during 2014, which was also consistent with NERC's 2014 approved budget. However, the company had sufficient funds available to pay for budgeted capital improvements without having to draw on this credit facility.

As further discussed in the Introduction and Executive Summary and in Section A, General and Administrative and set forth in the table below, NERC has a 2016 proposed IT capital budget of approximately \$3.9M, \$1.5M of which it is proposing to finance.

NERC Capital Budget			
	2015 Budget	2016 Budget	Inc(Dec) v 2015
ERO Application Development	\$ 1,050,000	\$ 1,500,000	\$ 450,000
Document Management	-	465,000	465,000
ERO Data Analysis Tool	550,000	-	(550,000)
Generation Data Software	200,000	-	(200,000)
Other IT Hardware and Software	1,453,500	1,411,000	(42,500)
Network Devices and A/V	365,000	535,000	170,000
<b>Total Capital Budget</b>	<b>\$ 3,618,500</b>	<b>\$ 3,911,000</b>	<b>\$ 292,500</b>
Depreciation (excluded from Assessment)	(2,333,006)	(2,641,943)	(308,937)
<b>Fixed Assets (net)</b>	<b>\$ 1,285,494</b>	<b>\$ 1,269,057</b>	<b>\$ (16,437)</b>

The table below sets forth the projected principal and interest repayment schedule for the amounts financed to date and the additional planned \$1.5M 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 2016. 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 operating reserves, the expenditures of which are subject to the terms of the company's Working Capital and Operating Reserve Policy.

<sup>47</sup> 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.

<sup>48</sup> This capital investment amount is exclusive of approximately \$640k 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.

		YEAR-END OUTSTANDING DEBT BALANCE				
<b>Borrowing</b>		<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
\$ 1,265,000	2013 Expenditure / Closed 2014	\$ 878,472	\$ 456,806	\$ 35,139	\$ -	\$ -
1,900,000	2015 Budgeted	-	-	1,266,667	633,333	-
1,500,000	2016 Budgeted	-	-	1,500,000	1,000,000	500,000
1,500,000	2017 Projected	-	-	-	1,500,000	1,000,000
1,500,000	2018 Projected	-	-	-	-	1,500,000
<b>Total Outstanding Balance</b>		<b>\$ 878,472</b>	<b>\$ 456,806</b>	<b>\$2,801,806</b>	<b>\$3,133,333</b>	<b>\$3,000,000</b>

		ANNUAL PAYMENTS FOR DEBT SERVICE				
<b>Borrowing</b>		<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
\$ 1,265,000	2013 Expenditure / Closed 2014	\$ 386,528	\$ 421,667	\$ 421,667	\$ 35,139	\$ -
1,900,000	2015 Budgeted	-	-	633,333	633,333	633,333
1,500,000	2016 Budgeted	-	-	-	500,000	500,000
1,500,000	2017 Projected	-	-	-	-	500,000
1,500,000	2018 Projected	-	-	-	-	-
	Interest Expense	29,367	28,000	60,000	72,100	90,250
<b>Total Principal and Interest Costs</b>		<b>\$ 415,895</b>	<b>\$ 449,667</b>	<b>\$1,115,000</b>	<b>\$1,240,572</b>	<b>\$1,723,583</b>



## Exhibit E – Working Capital and Operating Reserve Amounts

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In February 2015, the NERC Board approved an amendment to the Company's Working Capital and Operating Reserve Policy. A number of changes were made to the policy, including:

- Clarifying the definition of working capital to represent funding needed for cash flow purposes due to the timing of the receipt of funds and the payment of expenses.
- Creating four separate categories of operating reserves:
  1. A new subcategory of reserves entitled **Future Obligation Reserve** for funds that are being held to satisfy obligations that will be settled in a future year. Examples include leases, certain contracts, and credit agreements. These reserves were previously within the definition of working capital and are more accurately classified as a form of operating reserve.
  2. Continuation of a separate category of reserves for the Operator Certification Program called the **Operator Certification Reserve**.
  3. Elimination of the Known and Unforeseen Contingency categories of operating reserves and creating a single category of contingency reserves called the **Operating Contingency Reserve**.
  4. Creation of a separate category of reserves for CRISP called the **CRISP Reserve**.

### Working Capital

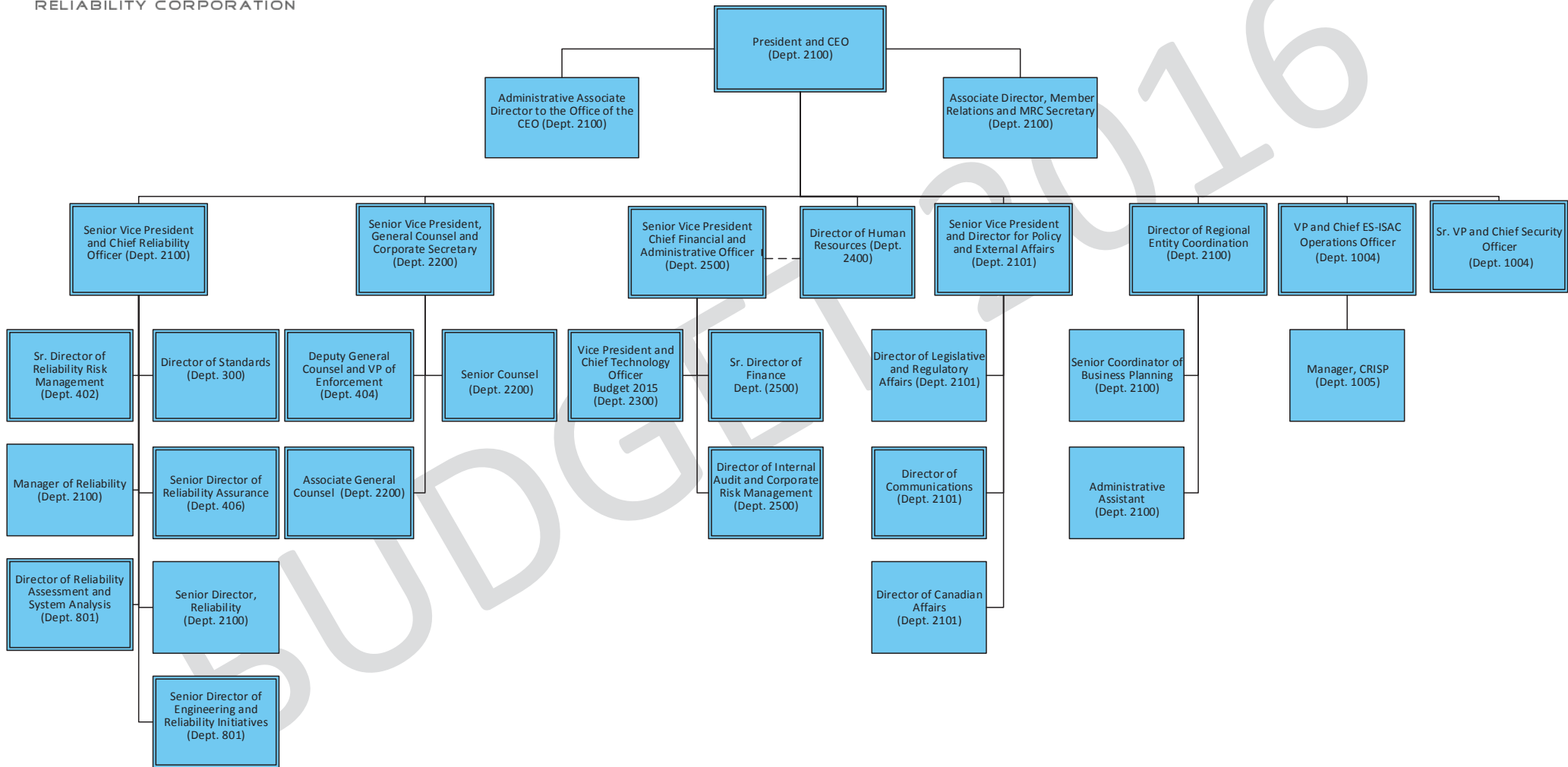
Based on its 2015 cash flow projection and taking into account the historic manner in which NERC's assessments have been billed and paid, NERC does not anticipate needing access to working capital in 2016 to meet monthly cash flow needs. In the unlikely event NERC experiences a temporary cash flow shortage, it has the ability to either request authorization from the Finance and Audit Committee and Board of Trustees to temporarily access operating contingency reserve funds, or draw on its \$4M line of credit, as long as NERC is in compliance with the covenants under its bank credit agreement.

### Operating Reserves

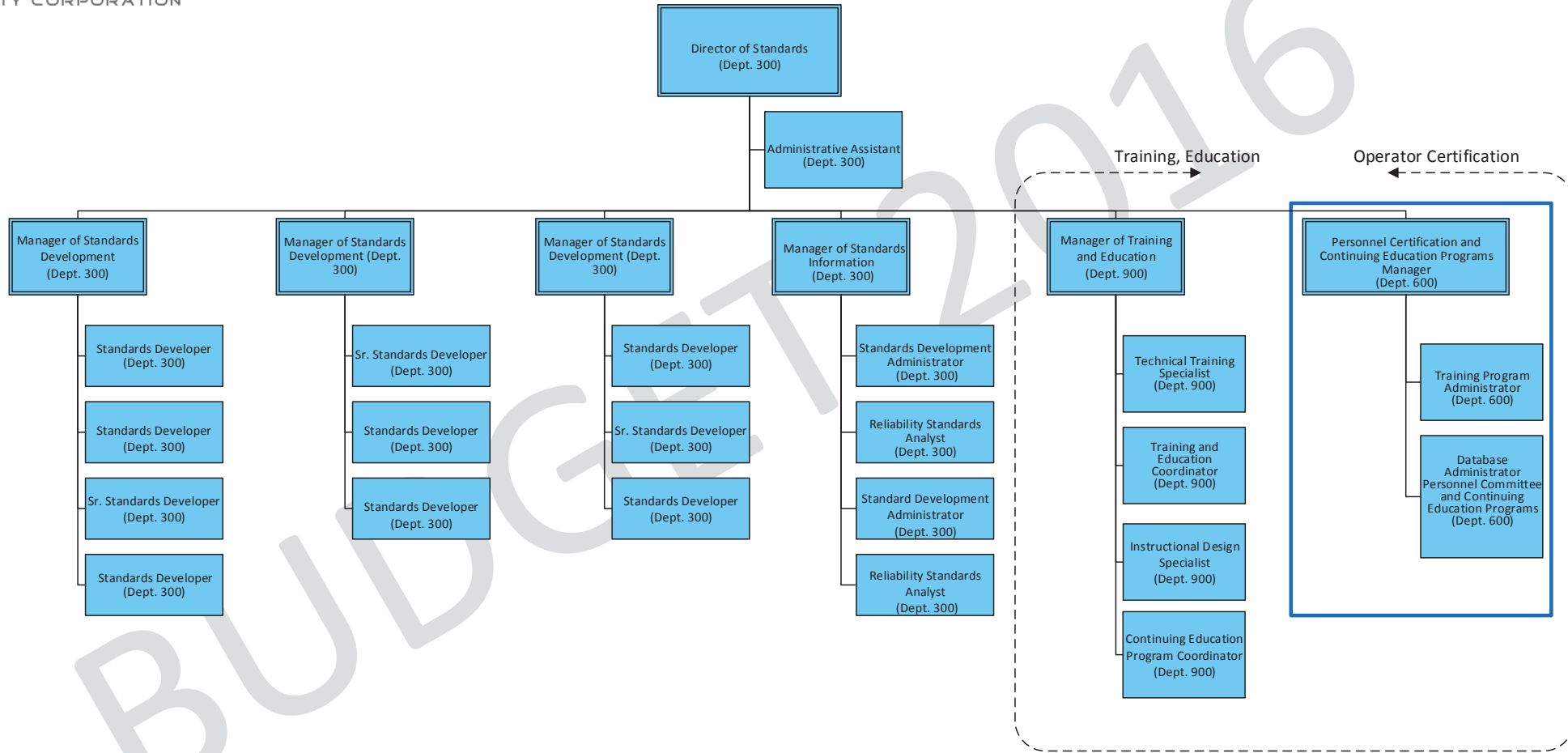
Total operating reserves are projected to be \$8.8M among all four categories. The Future Obligation Reserve is budgeted to be \$3.2M and is primarily funds held to offset future liabilities under lease agreements for the Atlanta and Washington, DC, offices. System Operator Certification Reserves are budgeted at \$390k and the Operating Contingency Reserve is budgeted for \$2.5M. The CRISP Reserve (budgeted at \$516k) is held pursuant to the terms of the Master Services Agreement between NERC and participating utilities, which calls for a separate third-party funded reserve established to fund certain contingencies in connection with CRISP.

In addition to the foregoing reserves, the amended policy also provides for the creation of an **Assessment Stabilization Reserve**. The goal of the Assessment Stabilization Reserve is to mitigate assessment volatility and have changes in annual assessments track, within a reasonable band, changes in the company's total annual budget, with the total budget reflecting prudent fiscal discipline and good stewardship of resources. Assessment stabilization funds will be used when available to help stabilize assessments and mitigate year-to-year swings in assessments. Those swings primarily result from the application of penalty funds, but could also result from other factors like surplus funds available from a prior period, the need to replenish the Operating Contingency Reserve, or significant but relatively short-term operating or capital spending needs. NERC is proposing to place \$2.3M of the total \$3.7M in penalty funds that have been received to date in the Assessments Stabilization Reserve and utilize the balance of \$1.4k to reduce 2016 U.S. assessments.

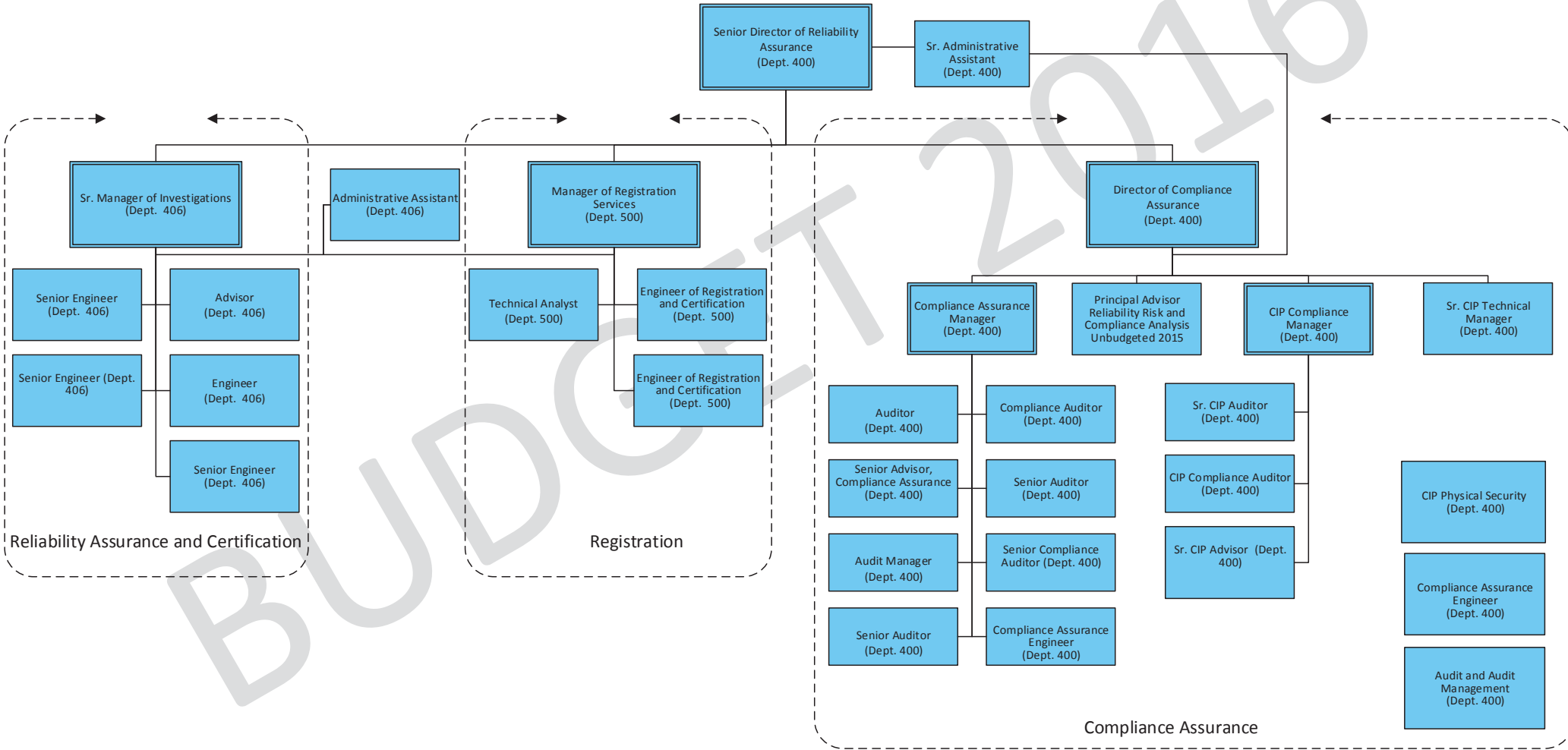
## NERC Staff Organization Chart



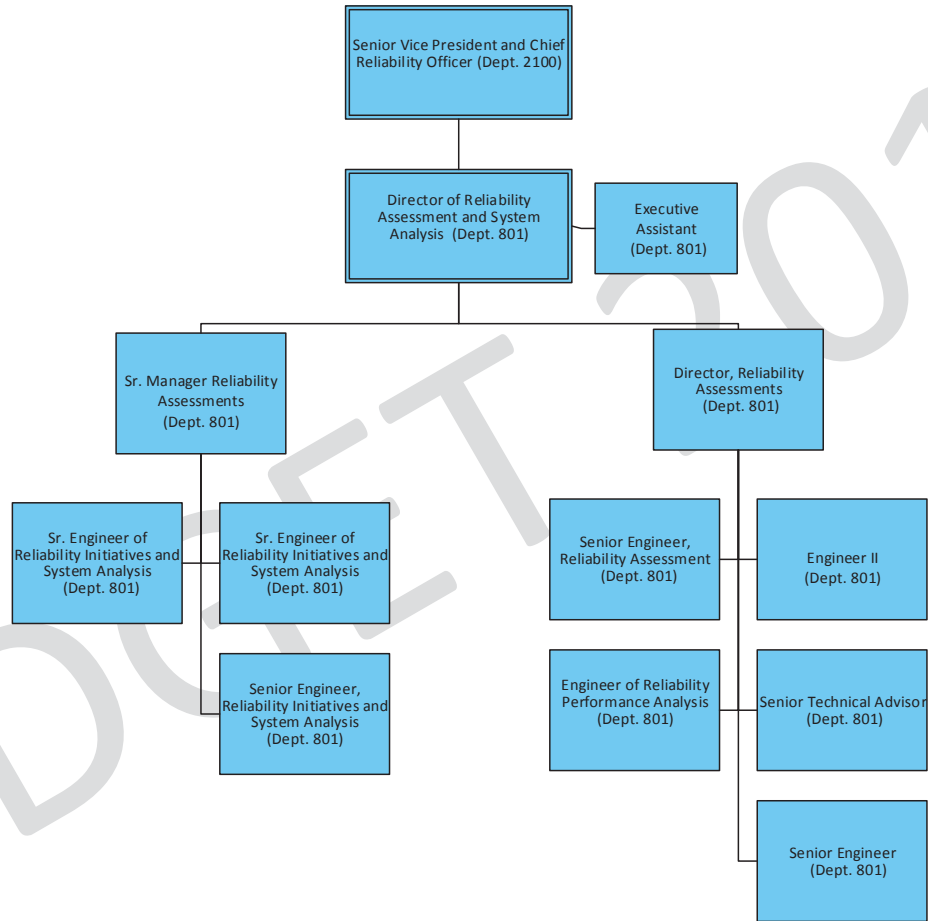
## Reliability Standards and Training (Dept. 300, 600, 900)



## Compliance Assurance (Dept. 400, 406, 500)

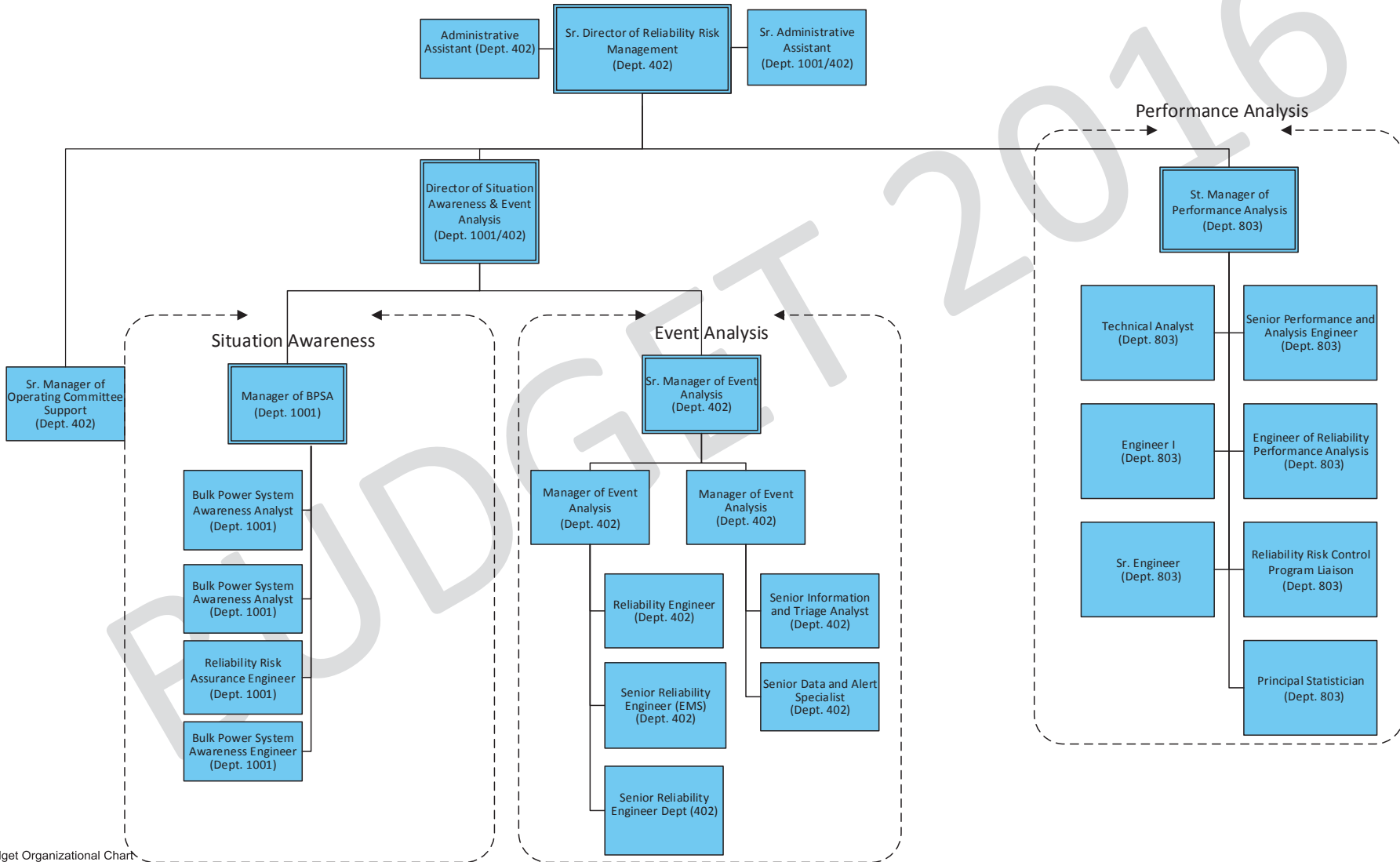


## Reliability Assessment and System Analysis (Dept. 801)

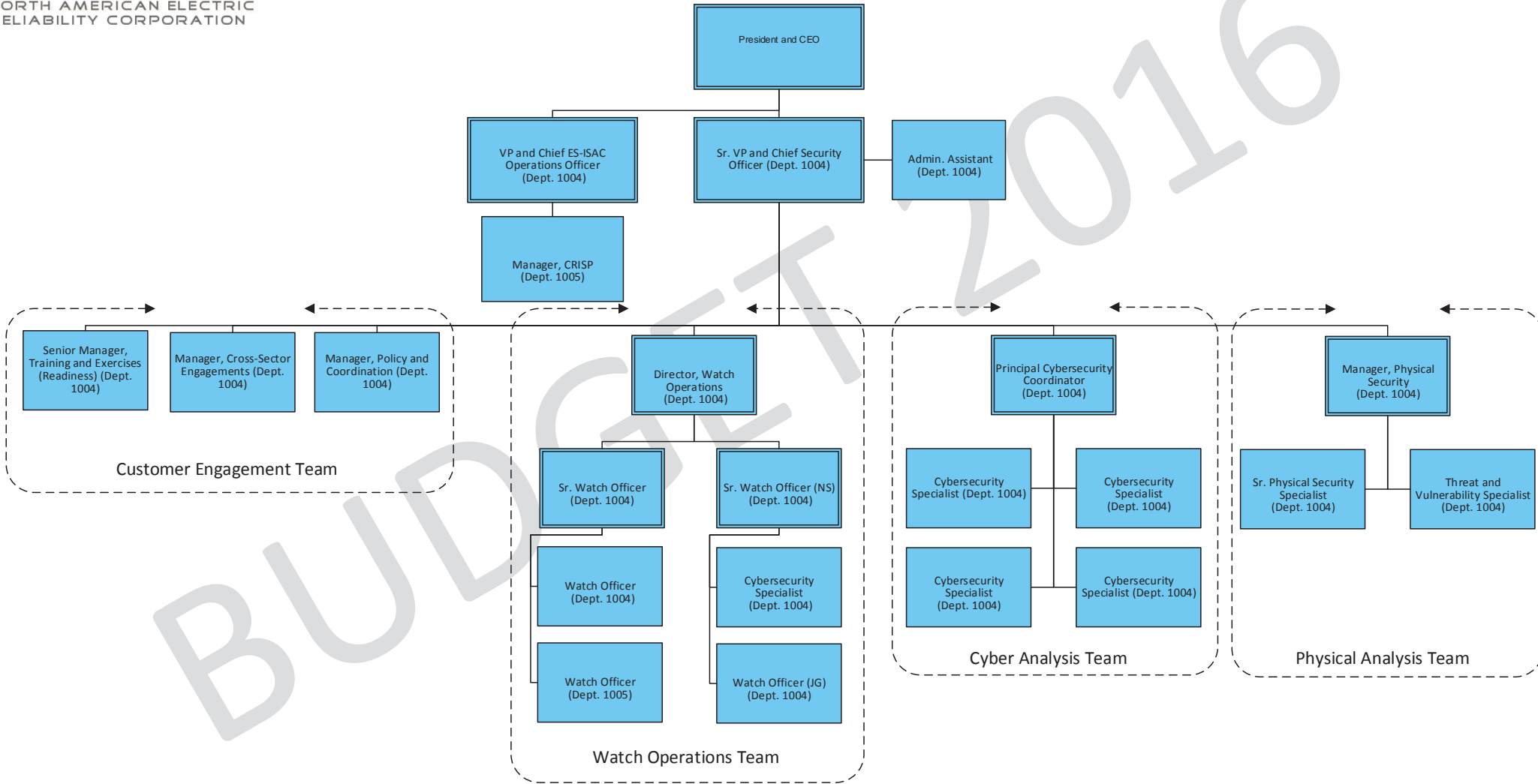


BUDGET 2016

## Reliability Risk Management (Dept. 402, 1001, 803)

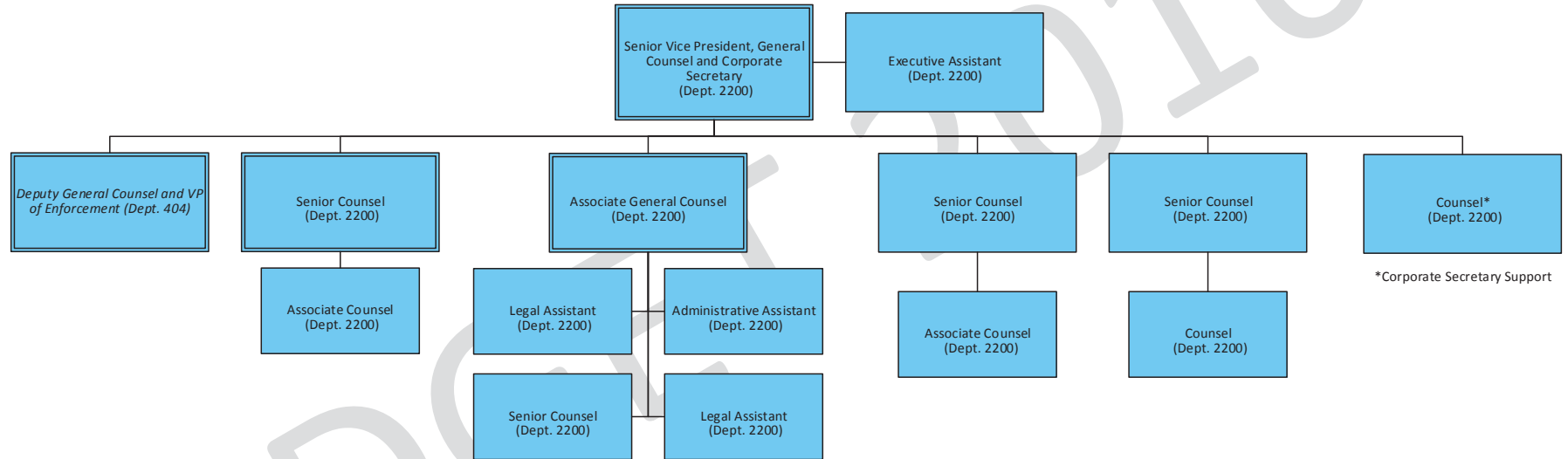


Electricity Sector Information Sharing and Analysis Center  
 (Dept. 1004, 1005)



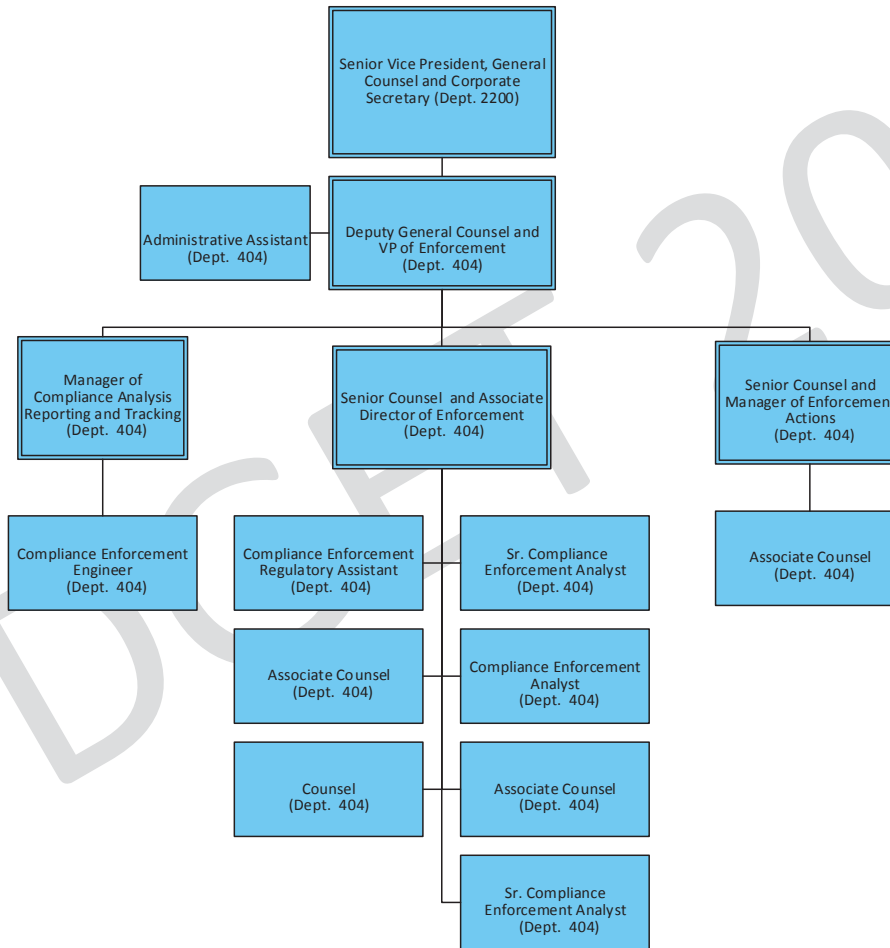


## Legal and Regulatory (Dept. 2200) Compliance Enforcement (Dept. 404)



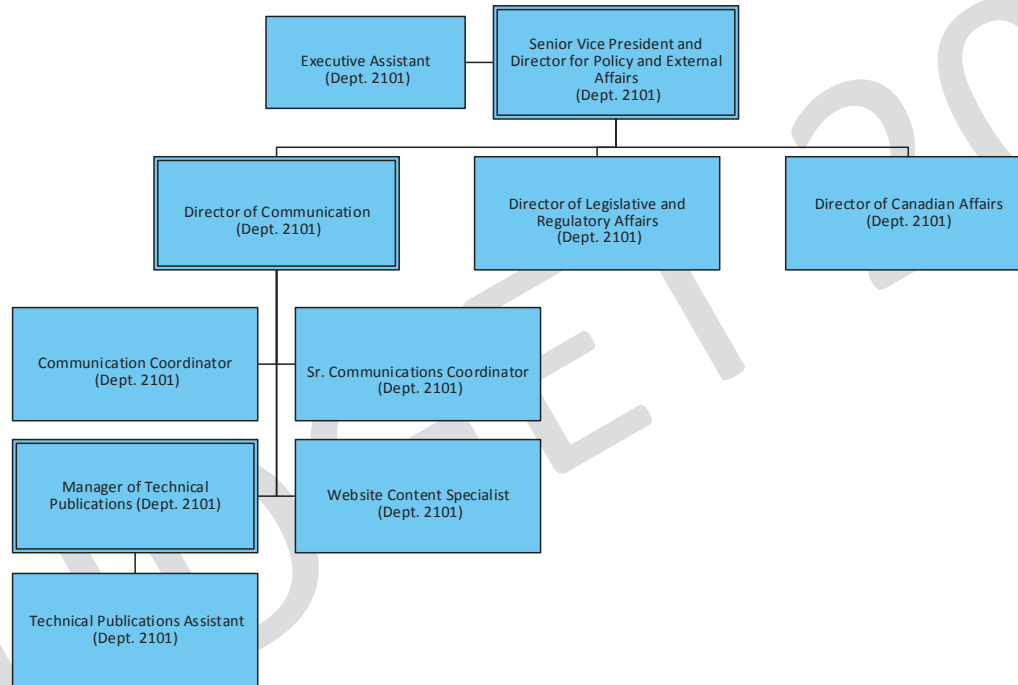
BUDGET

## Compliance Enforcement (Dept. 404)

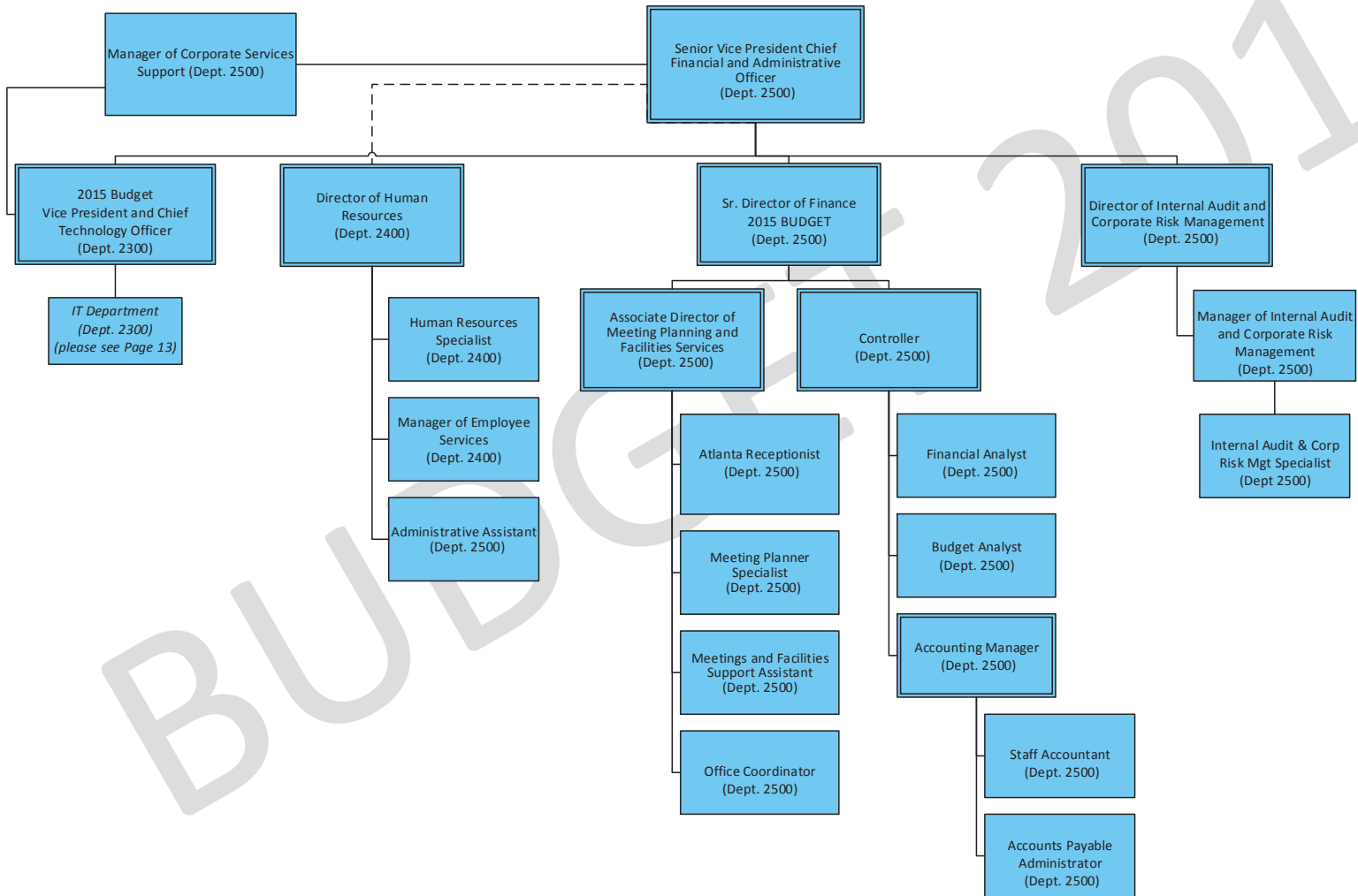


BUDGET 2016

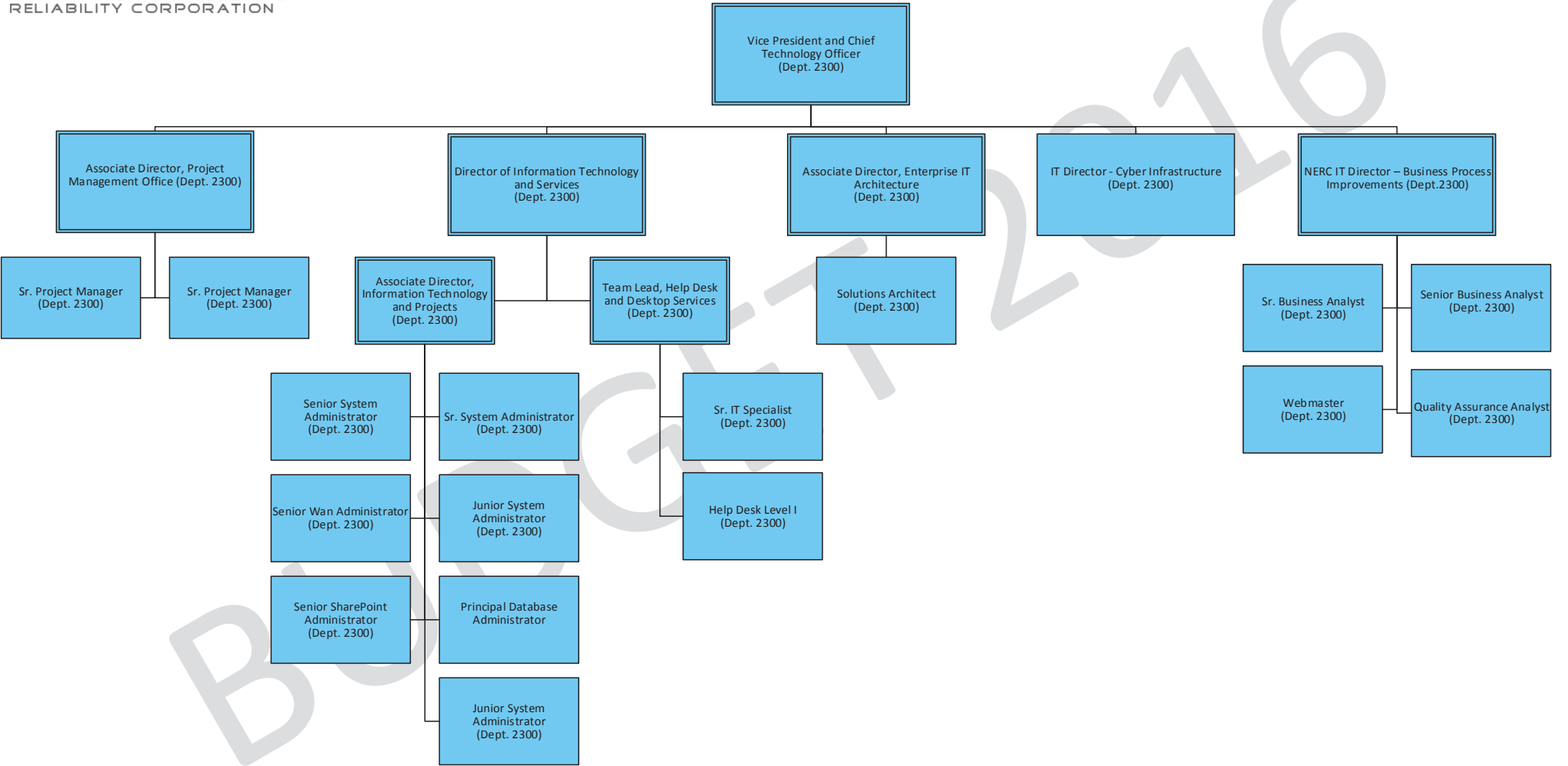
## Policy and External Affairs (Dept. 2101)



## Human Resources, and Accounting & Finance (Dept. 2400, 2500)



## Information Technology (Dept. 2300)



2014 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2016 NERC and RE Assessments

Data Year	Regional Entity	ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2014	FRCC	1074	Alachua, City of	U.S.	122,760	122,760	-	-	0.055%	0.055%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2014	FRCC	1075	Bartow, City of	U.S.	288,000	288,000	-	-	0.128%	0.128%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2014	FRCC	1076	Chattahoochee, City of	U.S.	38,161	38,161	-	-	0.017%	0.017%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	FRCC	1077	Florida Keys Electric Cooperative Assn	U.S.	740,000	740,000	-	-	0.329%	0.329%	0.000%	0.000%	0.016%	0.016%	0.000%	0.000%	0.018%
2014	FRCC	1078	Florida Power & Light Co.	U.S.	110,368,120	110,368,120	-	-	49.125%	49.125%	0.000%	0.000%	2.433%	2.433%	0.000%	0.000%	2.758%
2014	FRCC	1079	Florida Public Utilities Company	U.S.	362,000	362,000	-	-	0.161%	0.161%	0.000%	0.000%	0.008%	0.008%	0.000%	0.000%	0.009%
2014	FRCC	1080	Gainesville Regional Utilities	U.S.	1,754,312	1,754,312	-	-	0.781%	0.781%	0.000%	0.000%	0.039%	0.039%	0.000%	0.000%	0.044%
2014	FRCC	1081	Homestead, City of	U.S.	524,000	524,000	-	-	0.233%	0.233%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.013%
2014	FRCC	1082	JEA	U.S.	12,317,000	12,317,000	-	-	5.482%	5.482%	0.000%	0.000%	0.271%	0.271%	0.000%	0.000%	0.308%
2014	FRCC	1083	Lakeland Electric	U.S.	3,006,000	3,006,000	-	-	1.338%	1.338%	0.000%	0.000%	0.066%	0.066%	0.000%	0.000%	0.075%
2014	FRCC	1626	Lee County Electric Cooperative, Inc	U.S.	3,831,420	3,831,420	-	-	1.705%	1.705%	0.000%	0.000%	0.084%	0.084%	0.000%	0.000%	0.096%
2014	FRCC	1661	City of Lake Worth	U.S.	448,000	448,000	-	-	0.199%	0.199%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2014	FRCC	1084	Mount Dora, City of	U.S.	90,636	90,636	-	-	0.040%	0.040%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2014	FRCC	1085	New Smyrna Beach, Utilities Commission of	U.S.	409,000	409,000	-	-	0.182%	0.182%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2014	FRCC	1086	Orlando Utilities Commission	U.S.	5,883,000	5,883,000	-	-	2.619%	2.619%	0.000%	0.000%	0.130%	0.130%	0.000%	0.000%	0.147%
2014	FRCC	1087	Duke Energy Florida	U.S.	39,740,377	39,740,377	-	-	17.689%	17.689%	0.000%	0.000%	0.876%	0.876%	0.000%	0.000%	0.993%
2014	FRCC	1088	Quincy, City of	U.S.	135,700	135,700	-	-	0.060%	0.060%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2014	FRCC	1089	Reedy Creek Improvement District	U.S.	1,193,000	1,193,000	-	-	0.531%	0.531%	0.000%	0.000%	0.026%	0.026%	0.000%	0.000%	0.030%
2014	FRCC	1090	St. Cloud, City of (OUC)	U.S.	639,000	639,000	-	-	0.284%	0.284%	0.000%	0.000%	0.014%	0.014%	0.000%	0.000%	0.016%
2014	FRCC	1091	Tallahassee, City of	U.S.	2,751,000	2,751,000	-	-	1.224%	1.224%	0.000%	0.000%	0.061%	0.061%	0.000%	0.000%	0.069%
2014	FRCC	1092	Tampa Electric Company	U.S.	19,315,000	19,315,000	-	-	8.597%	8.597%	0.000%	0.000%	0.426%	0.426%	0.000%	0.000%	0.483%
2014	FRCC	1603	City of Vero Beach	U.S.	741,000	741,000	-	-	0.330%	0.330%	0.000%	0.000%	0.016%	0.016%	0.000%	0.000%	0.019%
2014	FRCC	1093	Wauchula, City of	U.S.	63,700	63,700	-	-	0.028%	0.028%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.002%
2014	FRCC	1094	Williston, City of	U.S.	32,826	32,826	-	-	0.015%	0.015%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	FRCC	1095	Winter Park, City of	U.S.	437,440	437,440	-	-	0.195%	0.195%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2014	FRCC	1072	Florida Municipal Power Agency	U.S.	5,611,485	5,611,485	-	-	2.498%	2.498%	0.000%	0.000%	0.124%	0.124%	0.000%	0.000%	0.140%
2014	FRCC	1073	Seminole Electric Cooperative	U.S.	13,822,800	13,822,800	-	-	6.153%	6.153%	0.000%	0.000%	0.305%	0.305%	0.000%	0.000%	0.345%
TOTAL FRCC					224,665,737	224,665,737	-	-	100.000%	100.000%	0.000%	0.000%	4.952%	4.952%	0.000%	0.000%	5.615%
2014	MRO	1199	Basin Electric Power Cooperative	U.S.	16,120,179	16,120,179	-	-	5.583%	5.583%	0.000%	0.000%	0.355%	0.355%	0.000%	0.000%	0.403%
2014	MRO	1201	Central Iowa Power Cooperative (CIPCO)	U.S.	2,813,686	2,813,686	-	-	0.974%	0.974%	0.000%	0.000%	0.062%	0.062%	0.000%	0.000%	0.070%
2014	MRO	1204	Corn Belt Power Cooperative	U.S.	1,898,261	1,898,261	-	-	0.657%	0.657%	0.000%	0.000%	0.042%	0.042%	0.000%	0.000%	0.047%
2014	MRO	1207	Dairyland Power Cooperative	U.S.	5,586,500	5,586,500	-	-	1.935%	1.935%	0.000%	0.000%	0.123%	0.123%	0.000%	0.000%	0.140%
2014	MRO	1210	Great River Energy	U.S.	14,056,323	14,056,323	-	-	4.868%	4.868%	0.000%	0.000%	0.310%	0.310%	0.000%	0.000%	0.351%
2014	MRO	1222	Minnkota Power Cooperative, Inc.	U.S.	4,508,621	4,508,621	-	-	1.561%	1.561%	0.000%	0.000%	0.099%	0.099%	0.000%	0.000%	0.113%
2014	MRO	1230	Nebraska Public Power District	U.S.	13,571,197	13,571,197	-	-	4.700%	4.700%	0.000%	0.000%	0.299%	0.299%	0.000%	0.000%	0.339%
2014	MRO	1232	Omaha Public Power District	U.S.	11,255,070	11,255,070	-	-	3.898%	3.898%	0.000%	0.000%	0.248%	0.248%	0.000%	0.000%	0.281%
2014	MRO	1237	Southern Montana Generation and Transmission	U.S.	8,761	8,761	-	-	0.003%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	MRO	1240	Western Area Power Administration (UM)	U.S.	8,592,049	8,592,049	-	-	2.976%	2.976%	0.000%	0.000%	0.189%	0.189%	0.000%	0.000%	0.215%
2014	MRO	1239	Western Area Power Administration (LM)	U.S.	131,751	131,751	-	-	0.046%	0.046%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2014	MRO	1217	Manitoba Hydro	CAN	24,331,988	-	24,331,988	-	8.427%	0.000%	8.427%	0.000%	0.536%	0.000%	0.536%	0.000%	0.000%
2014	MRO	1235	SaskPower	CAN	23,334,000	-	23,334,000	-	8.081%	0.000%	8.081%	0.000%	0.514%	0.000%	0.514%	0.000%	0.000%
2014	MRO	1195	Alliant Energy (Alliant East - WPL & Alliant West IPL)	U.S.	29,379,691	29,379,691	-	-	10.175%	10.175%	0.000%	0.000%	0.648%	0.648%	0.000%	0.000%	0.734%
2014	MRO	1216	Madison, Gas and Electric	U.S.	3,444,654	3,444,654	-	-	1.193%	1.193%	0.000%	0.000%	0.076%	0.076%	0.000%	0.000%	0.086%
2014	MRO	1220	MidAmerican Energy Company	U.S.	24,526,065	24,526,065	-	-	8.494%	8.494%	0.000%	0.000%	0.541%	0.541%	0.000%	0.000%	0.613%
2014	MRO	1221	Minnesota Power	U.S.	13,315,055	13,315,055	-	-	4.611%	4.611%	0.000%	0.000%	0.293%	0.293%	0.000%	0.000%	0.333%
2014	MRO	1226	Montana-Dakota Utilities Co.	U.S.	3,250,683	3,250,683	-	-	1.126%	1.126%	0.000%	0.000%	0.072%	0.072%	0.000%	0.000%	0.081%
2014	MRO	1231	NorthWestern Energy	U.S.	1,579,926	1,579,926	-	-	0.547%	0.547%	0.000%	0.000%	0.035%	0.035%	0.000%	0.000%	0.039%
2014	MRO	1233	Otter Tail Power Company	U.S.	4,780,706	4,780,706	-	-	1.656%	1.656%	0.000%	0.000%	0.105%	0.105%	0.000%	0.000%	0.119%
2014	MRO	1664	Wisconsin Public Service (WPS)	U.S.	12,283,710	12,283,710	-	-	4.254%	4.254%	0.000%	0.000%	0.271%	0.271%	0.000%	0.000%	0.307%
2014	MRO	1665	Upper Peninsula Power Company (UPPCO)	U.S.	743,499	743,499	-	-	0.257%	0.257%	0.000%	0.000%	0.016%	0.016%	0.000%	0.000%	0.019%
2014	MRO	1244	Xcel Energy Company (NSP)	U.S.	45,214,015	45,214,015	-	-	15.659%	15.659%	0.000%	0.000%	0.997%	0.997%	0.000%	0.000%	1.130%
2014	MRO	1196	Ames Municipal Electric System	U.S.	767,900	767,900	-	-	0.266%	0.266%	0.000%	0.000%	0.017%	0.017%	0.000%	0.000%	0.019%
2014	MRO	1604	Atlantic Municipal Utilities	U.S.	76,105	76,105	-	-	0.026%	0.026%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%

2014 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2016 NERC and RE Assessments

Data Year	Regional Entity	ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2014	MRO	1476	Badger Power Marketing Authority of Wisconsin, Inc.	U.S.	407,292	407,292	-	-	0.141%	0.141%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2014	MRO	1200	Cedar Falls Municipal Utilities	U.S.	531,890	531,890	-	-	0.184%	0.184%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.013%
2014	MRO	1477	Central Minnesota Municipal Power Agency (CMMMPA)	U.S.	463,133	463,133	-	-	0.160%	0.160%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.012%
2014	MRO	1203	City of Escanaba	U.S.	141,796	141,796	-	-	0.049%	0.049%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.004%
2014	MRO	1205	Falls City Water & Light Department	U.S.	57,447	57,447	-	-	0.020%	0.020%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	MRO	1206	Fremont Department of Utilities	U.S.	438,011	438,011	-	-	0.152%	0.152%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2014	MRO	1208	Geneseo Municipal Utilities	U.S.	65,596	65,596	-	-	0.023%	0.023%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.002%
2014	MRO	1209	Grand Island Utilities Department	U.S.	758,979	758,979	-	-	0.263%	0.263%	0.000%	0.000%	0.017%	0.017%	0.000%	0.000%	0.019%
2014	MRO	1606	Harlan Municipal Utilities	U.S.	25,205	25,205	-	-	0.009%	0.009%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	MRO	1211	Hastings Utilities	U.S.	425,917	425,917	-	-	0.148%	0.148%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.011%
2014	MRO	1212	Heartland Consumers Power District	U.S.	869,871	869,871	-	-	0.301%	0.301%	0.000%	0.000%	0.019%	0.019%	0.000%	0.000%	0.022%
2014	MRO	1213	Hutchinson Utilities Commission	U.S.	296,111	296,111	-	-	0.103%	0.103%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.007%
2014	MRO	1215	Lincoln Electric System	U.S.	3,260,444	3,260,444	-	-	1.129%	1.129%	0.000%	0.000%	0.072%	0.072%	0.000%	0.000%	0.081%
2014	MRO	1218	Manitowoc Public Utilities	U.S.	541,274	541,274	-	-	0.187%	0.187%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.014%
2014	MRO	1223	Missouri River Energy Services	U.S.	2,441,672	2,441,672	-	-	0.846%	0.846%	0.000%	0.000%	0.054%	0.054%	0.000%	0.000%	0.061%
2014	MRO	1224	MN Municipal Power Agency (MMPA)	U.S.	1,531,885	1,531,885	-	-	0.531%	0.531%	0.000%	0.000%	0.034%	0.034%	0.000%	0.000%	0.038%
2014	MRO	1607	Montezuma Municipal Light & Power	U.S.	30,485	30,485	-	-	0.011%	0.011%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	MRO	1227	Municipal Energy Agency of Nebraska	U.S.	1,148,228	1,148,228	-	-	0.398%	0.398%	0.000%	0.000%	0.025%	0.025%	0.000%	0.000%	0.029%
2014	MRO	1228	Muscatine Power and Water	U.S.	874,395	874,395	-	-	0.303%	0.303%	0.000%	0.000%	0.019%	0.019%	0.000%	0.000%	0.022%
2014	MRO	1229	Nebraska City Utilities	U.S.	168,317	168,317	-	-	0.058%	0.058%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2014	MRO	1234	Rochester Public Utilities	U.S.	1,589	1,589	-	-	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	MRO	1236	Southern Minnesota Municipal Power Agency	U.S.	2,938,823	2,938,823	-	-	1.018%	1.018%	0.000%	0.000%	0.065%	0.065%	0.000%	0.000%	0.073%
2014	MRO	1241	Willmar Municipal Utilities	U.S.	261,620	261,620	-	-	0.091%	0.091%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2014	MRO	1242	Wisconsin Public Power, Inc. (East and West regions)	U.S.	5,493,725	5,493,725	-	-	1.903%	1.903%	0.000%	0.000%	0.121%	0.121%	0.000%	0.000%	0.137%
TOTAL MRO					288,744,100	241,078,112	47,665,988	-	100.00%	83.492%	16.508%	0.000%	6.364%	5.314%	1.051%	0.000%	6.025%
2014	NPCC	1336	New England	U.S.	127,175,000	127,175,000	-	-	19.832%	19.832%	0.000%	0.000%	2.803%	2.803%	0.000%	0.000%	3.178%
2014	NPCC	1339	New York	U.S.	160,059,000	160,059,000	-	-	24.961%	24.961%	0.000%	0.000%	3.528%	3.528%	0.000%	0.000%	4.000%
2014	NPCC	1337	Ontario	Canada	139,804,000	-	139,804,000	-	21.802%	0.000%	21.802%	0.000%	3.082%	0.000%	3.082%	0.000%	0.000%
2014	NPCC	1341	Quebec	Canada	189,311,000	-	189,311,000	-	29.522%	0.000%	29.522%	0.000%	4.173%	0.000%	4.173%	0.000%	0.000%
2014	NPCC	1663	New Brunswick	Canada	13,953,000	-	13,953,000	-	2.176%	0.000%	2.176%	0.000%	0.308%	0.000%	0.308%	0.000%	0.000%
2014	NPCC	1340	Nova Scotia	Canada	10,944,000	-	10,944,000	-	1.707%	0.000%	1.707%	0.000%	0.241%	0.000%	0.241%	0.000%	0.000%
TOTAL NPCC					641,246,000	287,234,000	354,012,000	-	100.000%	44.793%	55.207%	0.000%	14.134%	6.331%	7.803%	0.000%	7.178%
2014	RF	1102	Cannelton Utilities	U.S.	16,610	16,610	-	-	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	RF	1106	City of Croswell	U.S.	39,930	39,930	-	-	0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	RF	1490	City of Lansing	U.S.	2,225,600	2,225,600	-	-	0.243%	0.243%	0.000%	0.000%	0.049%	0.049%	0.000%	0.000%	0.056%
2014	RF	1120	Cloverland Electric Cooperative	U.S.	857,564	857,564	-	-	0.094%	0.094%	0.000%	0.000%	0.019%	0.019%	0.000%	0.000%	0.021%
2014	RF	1122	CMS ERM Michigan LLC	U.S.	119,824	119,824	-	-	0.013%	0.013%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2014	RF	1124	Constellation New Energy (MECS-CONS)	U.S.	918,416	918,416	-	-	0.100%	0.100%	0.000%	0.000%	0.020%	0.020%	0.000%	0.000%	0.023%
2014	RF	1123	Constellation New Energy (MECS-DET)	U.S.	998,800	998,800	-	-	0.109%	0.109%	0.000%	0.000%	0.022%	0.022%	0.000%	0.000%	0.025%
2014	RF	1126	Consumers Energy Company	U.S.	33,253,922	33,253,922	-	-	3.638%	3.638%	0.000%	0.000%	0.733%	0.733%	0.000%	0.000%	0.831%
2014	RF	1128	Detroit Edison Company	U.S.	45,591,040	45,591,040	-	-	4.987%	4.987%	0.000%	0.000%	1.005%	1.005%	0.000%	0.000%	1.139%
2014	RF	1166	Duke Energy Indiana	U.S.	30,756,717	30,756,717	-	-	3.365%	3.365%	0.000%	0.000%	0.678%	0.678%	0.000%	0.000%	0.769%
2014	RF	1135	Ferdinand Municipal Light & Water	U.S.	46,595	46,595	-	-	0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	RF	1646	FirstEnergy Solutions (MECS-CONS)	U.S.	789,155	789,155	-	-	0.086%	0.086%	0.000%	0.000%	0.017%	0.017%	0.000%	0.000%	0.020%
2014	RF	1549	FirstEnergy Solutions (MECS-DET)	U.S.	2,176,858	2,176,858	-	-	0.238%	0.238%	0.000%	0.000%	0.048%	0.048%	0.000%	0.000%	0.054%
2014	RF	1612	Glacial Energy (MECS-DET)	U.S.	68,317	68,317	-	-	0.007%	0.007%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2014	RF	1145	Hoosier Energy	U.S.	7,639,077	7,639,077	-	-	0.836%	0.836%	0.000%	0.000%	0.168%	0.168%	0.000%	0.000%	0.191%
2014	RF	1148	Indiana Municipal Power Agency (DUKE CIN)	U.S.	3,123,691	3,123,691	-	-	0.342%	0.342%	0.000%	0.000%	0.069%	0.069%	0.000%	0.000%	0.078%
2014	RF	1485	Indiana Municipal Power Agency (NIPSCO)	U.S.	432,101	432,101	-	-	0.047%	0.047%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2014	RF	1486	Indiana Municipal Power Agency (SIGE)	U.S.	596,063	596,063	-	-	0.065%	0.065%	0.000%	0.000%	0.013%	0.013%	0.000%	0.000%	0.015%
2014	RF	1149	Indianapolis Power & Light Co.	U.S.	14,770,462	14,770,462	-	-	1.616%	1.616%	0.000%	0.000%	0.326%	0.326%	0.000%	0.000%	0.369%
2014	RF	1553	Integrus Energy Services (MECS-CONS)	U.S.	951,656	951,656	-	-	0.104%	0.104%	0.000%	0.000%	0.021%	0.021%	0.000%	0.000%	0.024%

2014 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2016 NERC and RE Assessments

Data Year	Regional Entity	ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2014	RF	1554	Integrus Energy Services (MECS-DET)	U.S.	781,966	781,966			0.086%	0.086%	0.000%	0.000%	0.017%	0.017%	0.000%	0.000%	0.020%
2014	RF	1666	Integrus Energy Services (WEPC)	U.S.	2,314,102	2,314,102			0.253%	0.253%	0.000%	0.000%	0.051%	0.051%	0.000%	0.000%	0.058%
2014	RF	1614	Just Energy (MECS-DET)	U.S.	36,611	36,611			0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	RF	1154	Michigan Public Power Agency	U.S.	2,944,728	2,944,728			0.322%	0.322%	0.000%	0.000%	0.065%	0.065%	0.000%	0.000%	0.074%
2014	RF	1155	Michigan South Central Power Agency	U.S.	651,287	651,287			0.071%	0.071%	0.000%	0.000%	0.014%	0.014%	0.000%	0.000%	0.016%
2014	RF	1158	MidAmerican Energy Company Retail	U.S.	90,880	90,880			0.010%	0.010%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2014	RF	1163	Northern Indiana Public Service Co.	U.S.	18,341,671	18,341,671			2.007%	2.007%	0.000%	0.000%	0.404%	0.404%	0.000%	0.000%	0.458%
2014	RF	1164	Ontonagon County Rural Electrification Assoc.	U.S.	29,102	29,102			0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	RF	1265	PJM Interconnection, LLC	U.S.	700,624,274	700,624,274			76.645%	76.645%	0.000%	0.000%	15.443%	15.443%	0.000%	0.000%	17.509%
2014	RF	1172	Noble Americas Energy Solutions (MECS-CONS)	U.S.	562,275	562,275			0.062%	0.062%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.014%
2014	RF	1171	Noble Americas Energy Solutions (MECS-DET)	U.S.	676,154	676,154			0.074%	0.074%	0.000%	0.000%	0.015%	0.015%	0.000%	0.000%	0.017%
2014	RF	1176	Direct Energy (fka:Strategic Energy,LLC) (MECS-CONS)	U.S.	32,602	32,602			0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	RF	1174	Direct Energy (fka:Strategic Energy,LLC) (MECS-DET)	U.S.	414,130	414,130			0.045%	0.045%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2014	RF	1581	Spartan Renewable Energy	U.S.	67,959	67,959			0.007%	0.007%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.002%
2014	RF	1180	Thumb Electric Cooperative	U.S.	186,623	186,623			0.020%	0.020%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.005%
2014	RF	1662	Ohio Valley Electric Corporation	U.S.	459,363	459,363			0.050%	0.050%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2014	RF	1181	Vectren Energy Delivery of IN	U.S.	5,871,328	5,871,328			0.642%	0.642%	0.000%	0.000%	0.129%	0.129%	0.000%	0.000%	0.147%
2014	RF	1183	Village of Sebawaing	U.S.	42,523	42,523			0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	RF	1184	Wabash Valley Power Association Inc. (DUKE CIN)	U.S.	2,888,397	2,888,397			0.316%	0.316%	0.000%	0.000%	0.064%	0.064%	0.000%	0.000%	0.072%
2014	RF	1488	Wabash Valley Power Association Inc.(NIPSCO)	U.S.	1,705,181	1,705,181			0.187%	0.187%	0.000%	0.000%	0.038%	0.038%	0.000%	0.000%	0.043%
2014	RF	1185	Wisconsin Electric Power Co.	U.S.	26,416,638	26,416,638			2.890%	2.890%	0.000%	0.000%	0.582%	0.582%	0.000%	0.000%	0.660%
2014	RF	1189	Wolverine Power Marketing Cooperative	U.S.	782,997	782,997			0.086%	0.086%	0.000%	0.000%	0.017%	0.017%	0.000%	0.000%	0.020%
2014	RF	1191	Wolverine Power Supply Cooperative	U.S.	2,679,113	2,679,113			0.293%	0.293%	0.000%	0.000%	0.059%	0.059%	0.000%	0.000%	0.067%
2014	RF	1190	Wolverine Power Marketing Cooperative(MECS-DET)	U.S.	140,065	140,065			0.015%	0.015%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.004%
TOTAL RELIABILITYFIRST					914,112,367	914,112,367	-	-	100.000%	100.000%	0.000%	0.000%	20.149%	20.149%	0.000%	0.000%	22.845%
2014	SERC	1267	Alabama Municipal Electric Authority	U.S.	3,443,953	3,443,953			0.335%	0.335%	0.000%	0.000%	0.076%	0.076%	0.000%	0.000%	0.086%
2014	SERC	1268	Alabama Power Company	U.S.	60,175,742	60,175,742			5.849%	5.849%	0.000%	0.000%	1.326%	1.326%	0.000%	0.000%	1.504%
2014	SERC	1269	Ameren - Illinois	U.S.	43,013,000	43,013,000			4.181%	4.181%	0.000%	0.000%	0.948%	0.948%	0.000%	0.000%	1.075%
2014	SERC	1271	Ameren - Missouri	U.S.	41,947,000	41,947,000			4.077%	4.077%	0.000%	0.000%	0.925%	0.925%	0.000%	0.000%	1.048%
2014	SERC	1272	APGI - Yadkin Division	U.S.	17,560	17,560			0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	SERC	1273	Associated Electric Cooperative Inc.	U.S.	19,655,728	19,655,728			1.910%	1.910%	0.000%	0.000%	0.433%	0.433%	0.000%	0.000%	0.491%
2014	SERC	1582	Beauregard Electric Cooperative, Inc.	U.S.	1,117,422	1,117,422			0.109%	0.109%	0.000%	0.000%	0.025%	0.025%	0.000%	0.000%	0.028%
2014	SERC	1462	Benton Utility District	U.S.	254,023	254,023			0.025%	0.025%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.006%
2014	SERC	1274	Big Rivers Electric Corporation	U.S.	3,876,923	3,876,923			0.377%	0.377%	0.000%	0.000%	0.085%	0.085%	0.000%	0.000%	0.097%
2014	SERC	1275	Black Warrior EMC	U.S.	450,270	450,270			0.044%	0.044%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2014	SERC	1276	Blue Ridge EMC	U.S.	1,409,179	1,409,179			0.137%	0.137%	0.000%	0.000%	0.031%	0.031%	0.000%	0.000%	0.035%
2014	SERC	1628	Brazos Electric Power Cooperative, Inc.	U.S.	458,455	458,455			0.045%	0.045%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2014	SERC	1463	Canton, MS	U.S.	130,779	130,779			0.013%	0.013%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2014	SERC	1277	Central Electric Power Cooperative Inc.	U.S.	16,584,094	16,584,094			1.612%	1.612%	0.000%	0.000%	0.366%	0.366%	0.000%	0.000%	0.414%
2014	SERC	1667	Century Aluminum - Hawesville	U.S.	4,212,847	4,212,847			0.409%	0.409%	0.000%	0.000%	0.093%	0.093%	0.000%	0.000%	0.105%
2014	SERC	1668	Century Aluminum - Sebree	U.S.	3,374,236	3,374,236			0.328%	0.328%	0.000%	0.000%	0.074%	0.074%	0.000%	0.000%	0.084%
2014	SERC	1278	City of Blountstown FL	U.S.	38,465	38,465			0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	SERC	1279	City of Camden SC	U.S.	199,373	199,373			0.019%	0.019%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.005%
2014	SERC	1280	City of Collins MS	U.S.	46,005	46,005			0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	SERC	1281	City of Columbia MO	U.S.	1,214,192	1,214,192			0.118%	0.118%	0.000%	0.000%	0.027%	0.027%	0.000%	0.000%	0.030%
2014	SERC	1282	City of Conway AR (Conway Corporation)	U.S.	1,007,955	1,007,955			0.098%	0.098%	0.000%	0.000%	0.022%	0.022%	0.000%	0.000%	0.025%
2014	SERC	1284	City of Evergreen AL	U.S.	58,103	58,103			0.006%	0.006%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	SERC	1285	City of Hampton GA	U.S.	31,000	31,000			0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	SERC	1286	City of Hartford AL	U.S.	30,554	30,554			0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	SERC	1287	City of Henderson (KY) Municipal Power & Light	U.S.	639,296	639,296			0.062%	0.062%	0.000%	0.000%	0.014%	0.014%	0.000%	0.000%	0.016%
2014	SERC	1288	City of North Little Rock AR (DENL)	U.S.	949,430	949,430			0.092%	0.092%	0.000%	0.000%	0.021%	0.021%	0.000%	0.000%	0.024%
2014	SERC	1289	City of Orangeburg SC Department of Public Utilities	U.S.	862,000	862,000			0.084%	0.084%	0.000%	0.000%	0.019%	0.019%	0.000%	0.000%	0.022%
2014	SERC	1290	City of Robertsdale AL	U.S.	85,400	85,400			0.008%	0.008%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%



2014 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2016 NERC and RE Assessments

Data Year	Regional Entity	ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2014	SERC	1291	City of Ruston LA (DERS)	U.S.	274,228	274,228			0.027%	0.027%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2014	SERC	1292	Seneca Light & Power	U.S.	164,370	164,370			0.016%	0.016%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2014	SERC	1115	City of Springfield (CWLP)	U.S.	1,848,176	1,848,176			0.180%	0.180%	0.000%	0.000%	0.041%	0.041%	0.000%	0.000%	0.046%
2014	SERC	1465	City of Thayer, MO	U.S.	23,661	23,661			0.002%	0.002%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	SERC	1293	City of Troy AL	U.S.	431,632	431,632			0.042%	0.042%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2014	SERC	1294	City of West Memphis AR (West Memphis Utilities)	U.S.	389,698	389,698			0.038%	0.038%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2014	SERC	1583	Claiborne Electric Cooperative, Inc.	U.S.	670,705	670,705			0.065%	0.065%	0.000%	0.000%	0.015%	0.015%	0.000%	0.000%	0.017%
2014	SERC	1584	Concordia Electric Cooperative, Inc.	U.S.	263,089	263,089			0.026%	0.026%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2014	SERC	1283	Dalton Utilities	U.S.	1,637,096	1,637,096			0.159%	0.159%	0.000%	0.000%	0.036%	0.036%	0.000%	0.000%	0.041%
2014	SERC	1585	Dixie Electric Membership Corporation	U.S.	2,265,301	2,265,301			0.220%	0.220%	0.000%	0.000%	0.050%	0.050%	0.000%	0.000%	0.057%
2014	SERC	1295	Dominion Virginia Power	U.S.	85,235,712	85,235,712			8.285%	8.285%	0.000%	0.000%	1.879%	1.879%	0.000%	0.000%	2.130%
2014	SERC	1296	Duke Energy Carolinas, LLC	U.S.	83,479,135	83,479,135			8.114%	8.114%	0.000%	0.000%	1.840%	1.840%	0.000%	0.000%	2.086%
2014	SERC	1466	Durant, MS	U.S.	28,335	28,335			0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	SERC	1478	LG&E and KU Services Company as agent for LG&E Company and KUCompan	U.S.	35,554,281	35,554,281			3.456%	3.456%	0.000%	0.000%	0.784%	0.784%	0.000%	0.000%	0.889%
2014	SERC	1297	East Kentucky Power Cooperative	U.S.	14,024,038	14,024,038			1.363%	1.363%	0.000%	0.000%	0.309%	0.309%	0.000%	0.000%	0.350%
2014	SERC	1298	East Mississippi Electric Power Association	U.S.	459,327	459,327			0.045%	0.045%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2014	SERC	1669	Electricities of North Carolina Inc	U.S.	11,745,551	11,745,551			1.142%	1.142%	0.000%	0.000%	0.259%	0.259%	0.000%	0.000%	0.294%
2014	SERC	1300	EnergyUnited EMC	U.S.	2,610,117	2,610,117			0.254%	0.254%	0.000%	0.000%	0.058%	0.058%	0.000%	0.000%	0.065%
2014	SERC	1301	Entergy	U.S.	116,082,794	116,082,794			11.283%	11.283%	0.000%	0.000%	2.559%	2.559%	0.000%	0.000%	2.901%
2014	SERC	1302	Fayetteville (NC) Public Works Commission	U.S.	2,203,524	2,203,524			0.214%	0.214%	0.000%	0.000%	0.049%	0.049%	0.000%	0.000%	0.055%
2014	SERC	1303	Florida Public Utilities (FL Panhandle Load)	U.S.	315,636	315,636			0.031%	0.031%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.008%
2014	SERC	1304	French Broad EMC	U.S.	543,517	543,517			0.053%	0.053%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.014%
2014	SERC	1305	Georgia Power Company	U.S.	86,719,251	86,719,251			8.429%	8.429%	0.000%	0.000%	1.911%	1.911%	0.000%	0.000%	2.167%
2014	SERC	1306	Georgia System Optns Corporation	U.S.	39,587,263	39,587,263			3.848%	3.848%	0.000%	0.000%	0.873%	0.873%	0.000%	0.000%	0.989%
2014	SERC	1479	Greenwood (MS) Utilities Commission	U.S.	273,918	273,918			0.027%	0.027%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2014	SERC	1307	Greenwood (SC) Commissioners of Public Works	U.S.	327,108	327,108			0.032%	0.032%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.008%
2014	SERC	1308	Gulf Power Company	U.S.	11,691,181	11,691,181			1.136%	1.136%	0.000%	0.000%	0.258%	0.258%	0.000%	0.000%	0.292%
2014	SERC	1586	Haywood EMC	U.S.	317,424	317,424			0.031%	0.031%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.008%
2014	SERC	1309	Illinois Municipal Electric Agency	U.S.	1,945,600	1,945,600			0.189%	0.189%	0.000%	0.000%	0.043%	0.043%	0.000%	0.000%	0.049%
2014	SERC	1480	Itta Bena, MS	U.S.	19,287	19,287			0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	SERC	1587	Jefferson Davis Electric Cooperative, Inc.	U.S.	292,255	292,255			0.028%	0.028%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2014	SERC	1617	Kentucky Municipal Power	U.S.	705,356	705,356			0.069%	0.069%	0.000%	0.000%	0.016%	0.016%	0.000%	0.000%	0.018%
2014	SERC	1481	Kosciusko, MS	U.S.	75,941	75,941			0.007%	0.007%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2014	SERC	1482	Leland, MS	U.S.	32,429	32,429			0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	SERC		Lockhart Power Company	U.S.	355,758	355,758			0.035%	0.035%	0.000%	0.000%	0.008%	0.008%	0.000%	0.000%	0.009%
2014	SERC	1313	McCormick Commission of Public Works	U.S.	21,616	21,616			0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%
2014	SERC	1314	Mississippi Power Company	U.S.	10,554,717	10,554,717			1.026%	1.026%	0.000%	0.000%	0.233%	0.233%	0.000%	0.000%	0.264%
2014	SERC	1630	Mt. Carmel Public Utility	U.S.	107,900	107,900			0.010%	0.010%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.003%
2014	SERC	1315	Municipal Electric Authority of Georgia	U.S.	10,926,650	10,926,650			1.062%	1.062%	0.000%	0.000%	0.241%	0.241%	0.000%	0.000%	0.273%
2014	SERC	1316	N.C. Electric Membership Corp.	U.S.	12,876,226	12,876,226			1.252%	1.252%	0.000%	0.000%	0.284%	0.284%	0.000%	0.000%	0.322%
2014	SERC	1588	Northeast Louisiana Power Cooperative, Inc.	U.S.	326,306	326,306			0.032%	0.032%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.008%
2014	SERC	1574	Northern Virginia Electric Cooperative	U.S.	4,200,663	4,200,663			0.408%	0.408%	0.000%	0.000%	0.093%	0.093%	0.000%	0.000%	0.105%
2014	SERC	1319	Old Dominion Electric Cooperative	U.S.	5,747,039	5,747,039			0.559%	0.559%	0.000%	0.000%	0.127%	0.127%	0.000%	0.000%	0.144%
2014	SERC	1618	Osceola (Arkansas) Municipal Light and Power	U.S.	162,802	162,802			0.016%	0.016%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2014	SERC	1320	Owensboro (KY) Municipal Utilities	U.S.	861,024	861,024			0.084%	0.084%	0.000%	0.000%	0.019%	0.019%	0.000%	0.000%	0.022%
2014	SERC	1321	Piedmont EMC in Duke and Progress Areas	U.S.	527,346	527,346			0.051%	0.051%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.013%
2014	SERC	1323	Piedmont Municipal Power Agency (PMPA)	U.S.	2,310,841	2,310,841			0.225%	0.225%	0.000%	0.000%	0.051%	0.051%	0.000%	0.000%	0.058%
2014	SERC	1589	Pointe Coupee Electric Memb. Corp.	U.S.	264,228	264,228			0.026%	0.026%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2014	SERC	1266	PowerSouth Energy	U.S.	8,846,256	8,846,256			0.860%	0.860%	0.000%	0.000%	0.195%	0.195%	0.000%	0.000%	0.221%
2014	SERC	1330	Prairie Power, Inc.	U.S.	1,623,596	1,623,596			0.158%	0.158%	0.000%	0.000%	0.036%	0.036%	0.000%	0.000%	0.041%
2014	SERC	1324	Duke Energy Progress	U.S.	46,530,000	46,530,000			4.523%	4.523%	0.000%	0.000%	1.026%	1.026%	0.000%	0.000%	1.163%
2014	SERC	1325	Rutherford EMC	U.S.	1,353,553	1,353,553			0.132%	0.132%	0.000%	0.000%	0.030%	0.030%	0.000%	0.000%	0.034%
2014	SERC	1631	Sam Rayburn G&T Electric Cooperative Inc.	U.S.	1,863,010	1,863,010			0.181%	0.181%	0.000%	0.000%	0.041%	0.041%	0.000%	0.000%	0.047%
2014	SERC	1326	South Carolina Electric & Gas Company	U.S.	23,475,231	23,475,231			2.282%	2.282%	0.000%	0.000%	0.517%	0.517%	0.000%	0.000%	0.587%

2014 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2016 NERC and RE Assessments

Data Year	Regional Entity	ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2014	SERC	1327	South Carolina Public Service Authority	U.S.	11,404,459	11,404,459			1.108%	1.108%	0.000%	0.000%	0.251%	0.251%	0.000%	0.000%	0.285%
2014	SERC	1590	South Louisiana Electric Cooperative Association	U.S.	636,069	636,069			0.062%	0.062%	0.000%	0.000%	0.014%	0.014%	0.000%	0.000%	0.016%
2014	SERC	1328	South Mississippi Electric Power Association	U.S.	10,257,114	10,257,114			0.997%	0.997%	0.000%	0.000%	0.226%	0.226%	0.000%	0.000%	0.256%
2014	SERC	1329	Southern Illinois Power Cooperative	U.S.	1,665,646	1,665,646			0.162%	0.162%	0.000%	0.000%	0.037%	0.037%	0.000%	0.000%	0.042%
2014	SERC	1591	Southwest Louisiana Electric Membership Corporation	U.S.	2,710,611	2,710,611			0.263%	0.263%	0.000%	0.000%	0.060%	0.060%	0.000%	0.000%	0.068%
2014	SERC	1619	Southwestern Electric Cooperative, Inc.	U.S.	457,396	457,396			0.044%	0.044%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2014	SERC	1331	Tennessee Valley Authority	U.S.	159,513,423	159,513,423			15.504%	15.504%	0.000%	0.000%	3.516%	3.516%	0.000%	0.000%	3.986%
2014	SERC	1632	Tex-La Electric Cooperative of Texas, Inc	U.S.	207,247	207,247			0.020%	0.020%	0.000%	0.000%	0.005%	0.005%	0.000%	0.000%	0.005%
2014	SERC	1332	Tombigbee Electric Cooperative Inc.	U.S.	133,637	133,637			0.013%	0.013%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2014	SERC	1594	Town of Sharpsburg, N.C.	U.S.	20,646	20,646			0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%
2014	SERC	1595	Town of Stantonsburg, N.C. JRO	U.S.	60,852	60,852			0.006%	0.006%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.002%
2014	SERC	1333	Town of Waynesville NC	U.S.	98,178	98,178			0.010%	0.010%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2014	SERC	1334	Town of Winnsboro SC	U.S.	66,785	66,785			0.006%	0.006%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.002%
2014	SERC	1335	Town of Winterville NC	U.S.	53,736	53,736			0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	SERC	1597	Washington-St.Tammany Electric Cooperative, Inc.	U.S.	1,106,617	1,106,617			0.108%	0.108%	0.000%	0.000%	0.024%	0.024%	0.000%	0.000%	0.028%
TOTAL SERC					1,028,847,097	1,028,847,097	-	-	100.000%	100.000%	0.000%	0.000%	22.678%	22.678%	0.000%	0.000%	25.712%
2014	SPP	1246	American Electric Power	U.S.	37,311,950	37,311,950			16.189%	16.189%	0.000%	0.000%	0.822%	0.822%	0.000%	0.000%	0.932%
2014	SPP	1435	Arkansas Electric Cooperative Corporation	U.S.	15,283,776	15,283,776			6.631%	6.631%	0.000%	0.000%	0.337%	0.337%	0.000%	0.000%	0.382%
2014	SPP	1247	Board of Public Utilities (Kansas City KS)	U.S.	2,410,453	2,410,453			1.046%	1.046%	0.000%	0.000%	0.053%	0.053%	0.000%	0.000%	0.060%
2014	SPP	1620	Board of Public Utilities, City of McPherson, Kansas	U.S.	943,568	943,568			0.409%	0.409%	0.000%	0.000%	0.021%	0.021%	0.000%	0.000%	0.024%
2014	SPP	1647	Carthage City Water & Light	U.S.	316,896	316,896			0.137%	0.137%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.008%
2014	SPP	1469	Central Valley Electric Cooperative	U.S.	912,535	912,535			0.396%	0.396%	0.000%	0.000%	0.020%	0.020%	0.000%	0.000%	0.023%
2014	SPP	1556	City of Bentonville	U.S.	647,048	647,048			0.281%	0.281%	0.000%	0.000%	0.014%	0.014%	0.000%	0.000%	0.016%
2014	SPP	1557	City of Clarksdale, Mississippi	U.S.	163,537	163,537			0.071%	0.071%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2014	SPP	1558	Hope Water & Light (HWL)	U.S.	299,930	299,930			0.130%	0.130%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.007%
2014	SPP	1559	City of Minden	U.S.	155,171	155,171			0.067%	0.067%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.004%
2014	SPP		City of Chanute	U.S.	502,000	502,000			0.218%	0.218%	0.000%	0.000%	0.011%	0.011%	0.000%	0.000%	0.013%
2014	SPP	1636	City of Prescott	U.S.	87,092	87,092			0.038%	0.038%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2014	SPP	1248	Independence Power & Light (Independence, MO)	U.S.	1,054,028	1,054,028			0.457%	0.457%	0.000%	0.000%	0.023%	0.023%	0.000%	0.000%	0.026%
2014	SPP	1436	City Utilities of Springfield, MO	U.S.	3,179,857	3,179,857			1.380%	1.380%	0.000%	0.000%	0.070%	0.070%	0.000%	0.000%	0.079%
2014	SPP	1249	Cleco Power LLC	U.S.	12,794,396	12,794,396			5.551%	5.551%	0.000%	0.000%	0.282%	0.282%	0.000%	0.000%	0.320%
2014	SPP	1437	East Texas Electric Coop, Inc.	U.S.	413,628	413,628			0.179%	0.179%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2014	SPP	1250	The Empire District Electric Company	U.S.	5,370,950	5,370,950			2.330%	2.330%	0.000%	0.000%	0.118%	0.118%	0.000%	0.000%	0.134%
2014	SPP	1470	Farmers' Electric Coop	U.S.	364,263	364,263			0.158%	0.158%	0.000%	0.000%	0.008%	0.008%	0.000%	0.000%	0.009%
2014	SPP	1438	Golden Spread Electric Coop	U.S.	5,500,758	5,500,758			2.387%	2.387%	0.000%	0.000%	0.121%	0.121%	0.000%	0.000%	0.137%
2014	SPP	1251	Grand River Dam Authority	U.S.	5,212,955	5,212,955			2.262%	2.262%	0.000%	0.000%	0.115%	0.115%	0.000%	0.000%	0.130%
2014	SPP	1648	Jonesboro City Water & Light	U.S.	1,337,138	1,337,138			0.580%	0.580%	0.000%	0.000%	0.029%	0.029%	0.000%	0.000%	0.033%
2014	SPP	1252	Kansas City Power & Light (KCPL)	U.S.	15,934,638	15,934,638			6.914%	6.914%	0.000%	0.000%	0.351%	0.351%	0.000%	0.000%	0.398%
2014	SPP	1439	Kansas Electric Power Coop., Inc	U.S.	2,275,394	2,275,394			0.987%	0.987%	0.000%	0.000%	0.050%	0.050%	0.000%	0.000%	0.057%
2014	SPP	1440	Kansas Municipal Energy Agency (KCPL)	U.S.	1,432,004	1,432,004			0.621%	0.621%	0.000%	0.000%	0.032%	0.032%	0.000%	0.000%	0.036%
2014	SPP	1637	Kansas Power Pool	U.S.	914,342	914,342			0.397%	0.397%	0.000%	0.000%	0.020%	0.020%	0.000%	0.000%	0.023%
2014	SPP	1649	Kennett Board of Public Works	U.S.	161,592	161,592			0.070%	0.070%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2014	SPP	1598	KCP&L GMOC (Greater Missouri Operations Company)	U.S.	8,796,981	8,796,981			3.817%	3.817%	0.000%	0.000%	0.194%	0.194%	0.000%	0.000%	0.220%
2014	SPP	1471	Lafayette Utilities System	U.S.	2,077,449	2,077,449			0.901%	0.901%	0.000%	0.000%	0.046%	0.046%	0.000%	0.000%	0.052%
2014	SPP	1472	Lea County Electric Coop	U.S.	1,294,328	1,294,328			0.562%	0.562%	0.000%	0.000%	0.029%	0.029%	0.000%	0.000%	0.032%
2014	SPP	1253	Louisiana Energy & Power Authority (LEPA)	U.S.	1,033,011	1,033,011			0.448%	0.448%	0.000%	0.000%	0.023%	0.023%	0.000%	0.000%	0.026%
2014	SPP	1650	Malden Board of Public Works	U.S.	54,222	54,222			0.024%	0.024%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	SPP	1441	Midwest Energy Inc.	U.S.	1,845,455	1,845,455			0.801%	0.801%	0.000%	0.000%	0.041%	0.041%	0.000%	0.000%	0.046%
2014	SPP	1443	Missouri Joint Municipal Electric Utility Commission	U.S.	2,659,193	2,659,193			1.154%	1.154%	0.000%	0.000%	0.059%	0.059%	0.000%	0.000%	0.066%
2014	SPP	1442	Northeast Texas Electric Cooperative, Inc.	U.S.	3,301,535	3,301,535			1.432%	1.432%	0.000%	0.000%	0.073%	0.073%	0.000%	0.000%	0.083%
2014	SPP	1255	Oklahoma Gas and Electric Co.	U.S.	28,423,113	28,423,113			12.332%	12.332%	0.000%	0.000%	0.626%	0.626%	0.000%	0.000%	0.710%
2014	SPP	1444	Oklahoma Municipal Power Auth	U.S.	2,881,333	2,881,333			1.250%	1.250%	0.000%	0.000%	0.064%	0.064%	0.000%	0.000%	0.072%
2014	SPP	1639	OzMo Ozark Missouri, West Plains MO	U.S.	209,488	209,488			0.091%	0.091%	0.000%	0.000%	0.005%	0.005%	0.000%	0.000%	0.005%

2014 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2016 NERC and RE Assessments

Data Year	Regional Entity	ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2014	SPP	1651	Paragould Light, Water & Cable	U.S.	643,691	643,691			0.279%	0.279%	0.000%	0.000%	0.014%	0.014%	0.000%	0.000%	0.016%
2014	SPP	1652	Piggott Municipal Light, Water & Sewer	U.S.	43,193	43,193			0.019%	0.019%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	SPP	1653	Poplar Bluff Municipal Utilities	U.S.	415,003	415,003			0.180%	0.180%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2014	SPP	1561	Public Service Commission of Yazoo City of Mississippi	U.S.	116,305	116,305			0.050%	0.050%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2014	SPP	1473	Roosevelt County Electric Coop	U.S.	182,447	182,447			0.079%	0.079%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.005%
2014	SPP	1654	Sikeston Board of Municipal Utilities	U.S.	430,841	430,841			0.187%	0.187%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.011%
2014	SPP	1257	Southwestern Public Service Co. (SPS-XCEL)	U.S.	21,531,154	21,531,154			9.342%	9.342%	0.000%	0.000%	0.475%	0.475%	0.000%	0.000%	0.538%
2014	SPP	1256	Sunflower Electric Power Cooperative	U.S.	4,653,618	4,653,618			2.019%	2.019%	0.000%	0.000%	0.103%	0.103%	0.000%	0.000%	0.116%
2014	SPP	1445	Tex - La Electric Cooperative of Texas	U.S.	497,529	497,529			0.216%	0.216%	0.000%	0.000%	0.011%	0.011%	0.000%	0.000%	0.012%
2014	SPP	1475	Tri County Electric Coop	U.S.	398,266	398,266			0.173%	0.173%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2014	SPP	1260	Westar Energy, Inc.	U.S.	21,851,948	21,851,948			9.481%	9.481%	0.000%	0.000%	0.482%	0.482%	0.000%	0.000%	0.546%
2014	SPP	1259	Western Farmers Electric Cooperative	U.S.	9,296,254	9,296,254			4.033%	4.033%	0.000%	0.000%	0.205%	0.205%	0.000%	0.000%	0.232%
2014	SPP	1501	West Texas Municipal Power Agency	U.S.	2,864,897	2,864,897			1.243%	1.243%	0.000%	0.000%	0.063%	0.063%	0.000%	0.000%	0.072%
TOTAL SPP					230,481,153	230,481,153	-	-	100.000%	100.000%	0.000%	0.000%	5.080%	5.080%	0.000%	0.000%	5.760%
2014	TRE	1019	ERCOT	U.S.	341,255,629	341,255,629			100.000%	100.000%	0.000%	0.000%	7.522%	7.522%	0.000%	0.000%	8.528%
TOTAL ERCOT					341,255,629	341,255,629	-	-	100.000%	100.000%	0.000%	0.000%	7.522%	7.522%	0.000%	0.000%	8.528%
2014	WECC		Alberta Electric System Operator	Canada	62,686,000		62,686,000		7.226%	0.000%	7.226%	0.000%	1.382%	0.000%	1.382%	0.000%	0.000%
2014	WECC		British Columbia Hydro & Power Authority	Canada	59,047,108		59,047,108		6.807%	0.000%	6.807%	0.000%	1.302%	0.000%	1.302%	0.000%	0.000%
2014	WECC		Comision Federal de Electricidad	Mexico	12,011,036			12,011,036	1.385%	0.000%	0.000%	1.385%	0.265%	0.000%	0.000%	0.265%	0.000%
2014	WECC		Ajo Improvement District	U.S.	13,394	13,394			0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Aguila Irrigation District - APS	U.S.	39,157	39,157			0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		Electrical District No. 6 of Pinal County - APS	U.S.	2,533	2,533			0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Electrical District No. 7 of Maricopa County - APS	U.S.	51,317	51,317			0.006%	0.006%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		Electrical District No. 8 of Maricopa County - APS	U.S.	318,974	318,974			0.037%	0.037%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.008%
2014	WECC		Harquahala Valley Power Districts - APS	U.S.	92,428	92,428			0.011%	0.011%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2014	WECC		Maricopa County Municipal Water Conservation Dist No. 1 - APS	U.S.	55,008	55,008			0.006%	0.006%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		McMullen Valley Water Conservation & Drainage District - APS	U.S.	82,295	82,295			0.009%	0.009%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2014	WECC		Roosevelt Irrigation District - APS	U.S.	41,545	41,545			0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		Tonopah Irrigation District - APS	U.S.	20,338	20,338			0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%
2014	WECC		Buckeye Water Conservation and Drainage District - APS	U.S.	20,194	20,194			0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%
2014	WECC		Arizona Public Service Company	U.S.	29,362,773	29,362,773			3.385%	3.385%	0.000%	0.000%	0.647%	0.647%	0.000%	0.000%	0.734%
2014	WECC		City of Williams	U.S.	42,835	42,835			0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		Electrical Districts 1 & 3	U.S.	675,973	675,973			0.078%	0.078%	0.000%	0.000%	0.015%	0.015%	0.000%	0.000%	0.017%
2014	WECC		Navajo Tribal Utility Authority	U.S.	20,402	20,402			0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%
2014	WECC		Tohono O'Odham Utility Authority	U.S.	63,722	63,722			0.007%	0.007%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.002%
2014	WECC		Town of Wickenburg	U.S.	26,420	26,420			0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		Avista Corporation	U.S.	9,563,104	9,563,104			1.102%	1.102%	0.000%	0.000%	0.211%	0.211%	0.000%	0.000%	0.239%
2014	WECC		Big Bend Electric Cooperative, Inc.	U.S.	150,465	150,465			0.017%	0.017%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.004%
2014	WECC		City of Cheney	U.S.	149,582	149,582			0.017%	0.017%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.004%
2014	WECC		City of Chewelah	U.S.	23,496	23,496			0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		City of Plummer	U.S.	34,885	34,885			0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		Clearwater Cooperative, Inc	U.S.	169,136	169,136			0.019%	0.019%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2014	WECC		Consolidated Irrigation District No. 19	U.S.	7,025	7,025			0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Idaho County Light and Power Cooperative Association, Inc.	U.S.	58,351	58,351			0.007%	0.007%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		Inland Power and Light Company	U.S.	481,537	481,537			0.056%	0.056%	0.000%	0.000%	0.011%	0.011%	0.000%	0.000%	0.012%
2014	WECC		Kaiser Aluminum Fabricated Products LLC	U.S.	316,643	316,643			0.037%	0.037%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.008%
2014	WECC		Kootenai Electric Cooperative, Inc.	U.S.	479,977	479,977			0.055%	0.055%	0.000%	0.000%	0.011%	0.011%	0.000%	0.000%	0.012%
2014	WECC		Modern Electric Water Company	U.S.	234,643	234,643			0.027%	0.027%	0.000%	0.000%	0.005%	0.005%	0.000%	0.000%	0.006%
2014	WECC		Northern Lights, Inc.	U.S.	36,104	36,104			0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		Pend Oreille County PUD No. 1	U.S.	921,642	921,642			0.106%	0.106%	0.000%	0.000%	0.020%	0.020%	0.000%	0.000%	0.023%
2014	WECC		PUD No. 1 of Asotin County	U.S.	5,135	5,135			0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		PUD No. 2 of Grant County	U.S.	97,093	97,093			0.011%	0.011%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%

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Data Year	Regional Entity	ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2014	WECC		U.S. BOR East Greenacres (Rathdrum)	U.S.	3,162	3,162			0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		U.S. Bor Spokane Indian Development	U.S.	3,172	3,172			0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		US Air Force Base, Fairchild	U.S.	49,195	49,195			0.006%	0.006%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		City of Redding	U.S.	794,339	794,339			0.092%	0.092%	0.000%	0.000%	0.018%	0.018%	0.000%	0.000%	0.020%
2014	WECC		City of Roseville	U.S.	1,244,636	1,244,636			0.143%	0.143%	0.000%	0.000%	0.027%	0.027%	0.000%	0.000%	0.031%
2014	WECC		Modesto Irrigation District	U.S.	2,584,771	2,584,771			0.298%	0.298%	0.000%	0.000%	0.057%	0.057%	0.000%	0.000%	0.065%
2014	WECC		Sacramento Municipal Utility District	U.S.	11,260,323	11,260,323			1.298%	1.298%	0.000%	0.000%	0.248%	0.248%	0.000%	0.000%	0.281%
2014	WECC		Western Area Power Administration - Sierra Nevada Region	U.S.	1,321,813	1,321,813			0.152%	0.152%	0.000%	0.000%	0.029%	0.029%	0.000%	0.000%	0.033%
2014	WECC		Bonneville Power Administration	U.S.	54,536,432	54,536,432			6.287%	6.287%	0.000%	0.000%	1.202%	1.202%	0.000%	0.000%	1.363%
2014	WECC		California Independent System Operator	U.S.	231,311,307	231,311,307			26.665%	26.665%	0.000%	0.000%	5.099%	5.099%	0.000%	0.000%	5.781%
2014	WECC		El Paso Electric Company	U.S.	8,230,271	8,230,271			0.949%	0.949%	0.000%	0.000%	0.181%	0.181%	0.000%	0.000%	0.206%
2014	WECC		Bonneville Power Administration	U.S.	1,776,910	1,776,910			0.205%	0.205%	0.000%	0.000%	0.039%	0.039%	0.000%	0.000%	0.044%
2014	WECC		Idaho Power Company	U.S.	15,519,495	15,519,495			1.789%	1.789%	0.000%	0.000%	0.342%	0.342%	0.000%	0.000%	0.388%
2014	WECC		PacifiCorp	U.S.	2,049	2,049			0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Imperial Irrigation District	U.S.	3,699,695	3,699,695			0.426%	0.426%	0.000%	0.000%	0.082%	0.082%	0.000%	0.000%	0.092%
2014	WECC		Los Angeles Department of Water and Power	U.S.	29,696,028	29,696,028			3.423%	3.423%	0.000%	0.000%	0.655%	0.655%	0.000%	0.000%	0.742%
2014	WECC		City of Henderson	U.S.	42,872	42,872			0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		City of Las Vegas	U.S.	43,423	43,423			0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		City of North Las Vegas	U.S.	19,334	19,334			0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Clark County Water Resources	U.S.	78,485	78,485			0.009%	0.009%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2014	WECC		Colorado River Commission of Nevada	U.S.	922,301	922,301			0.106%	0.106%	0.000%	0.000%	0.020%	0.020%	0.000%	0.000%	0.023%
2014	WECC		Las Vegas Valley Water District	U.S.	95,651	95,651			0.011%	0.011%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2014	WECC		Nevada Power Company dba NV Energy	U.S.	25,053,465	25,053,465			2.888%	2.888%	0.000%	0.000%	0.552%	0.552%	0.000%	0.000%	0.626%
2014	WECC		Overton Power District No. 5	U.S.	378,591	378,591			0.044%	0.044%	0.000%	0.000%	0.008%	0.008%	0.000%	0.000%	0.009%
2014	WECC		Southern Nevada Water Authority	U.S.	119,571	119,571			0.014%	0.014%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2014	WECC		Bonneville Power Administration	U.S.	780,666	780,666			0.090%	0.090%	0.000%	0.000%	0.017%	0.017%	0.000%	0.000%	0.020%
2014	WECC		Central Montana Electric Power Cooperative	U.S.	417,747	417,747			0.048%	0.048%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2014	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC	U.S.	9,277,185	9,277,185			1.069%	1.069%	0.000%	0.000%	0.204%	0.204%	0.000%	0.000%	0.232%
2014	WECC		Southern Montana Electric Generation & Transmission	U.S.	391,223	391,223			0.045%	0.045%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2014	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	7,816	7,816			0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		PacifiCorp	U.S.	49,932,363	49,932,363			5.756%	5.756%	0.000%	0.000%	1.101%	1.101%	0.000%	0.000%	1.248%
2014	WECC		PacifiCorp West (PACW)	U.S.	20,921,420	20,921,420			2.412%	2.412%	0.000%	0.000%	0.461%	0.461%	0.000%	0.000%	0.523%
2014	WECC		Bonneville Power Administration	U.S.	8,814	8,814			0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Canby Public Utility Board	U.S.	165,249	165,249			0.019%	0.019%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2014	WECC		Columbia River PUD	U.S.	304,036	304,036			0.035%	0.035%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.008%
2014	WECC		Noble Americas Energy Solutions, LLC	U.S.	1,720,333	1,720,333			0.198%	0.198%	0.000%	0.000%	0.038%	0.038%	0.000%	0.000%	0.043%
2014	WECC		PacifiCorp	U.S.	2,208	2,208			0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Portland General Electric Company	U.S.	19,185,354	19,185,354			2.212%	2.212%	0.000%	0.000%	0.423%	0.423%	0.000%	0.000%	0.479%
2014	WECC		West Oregon Electric Cooperative, Inc.	U.S.	11,687	11,687			0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Arkansas River Power Authority (ARPA)	U.S.	261,517	261,517			0.030%	0.030%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2014	WECC		Black Hills Colorado Electric	U.S.	1,958,623	1,958,623			0.226%	0.226%	0.000%	0.000%	0.043%	0.043%	0.000%	0.000%	0.049%
2014	WECC		Burlington	U.S.	69,584	69,584			0.008%	0.008%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2014	WECC		Colorado Springs Utilities	U.S.	29,677	29,677			0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		Grand Valley Power	U.S.	228,990	228,990			0.026%	0.026%	0.000%	0.000%	0.005%	0.005%	0.000%	0.000%	0.006%
2014	WECC		Holy Cross Energy	U.S.	1,123,078	1,123,078			0.129%	0.129%	0.000%	0.000%	0.025%	0.025%	0.000%	0.000%	0.028%
2014	WECC		Intermountain Rural Electric Association	U.S.	2,136,076	2,136,076			0.246%	0.246%	0.000%	0.000%	0.047%	0.047%	0.000%	0.000%	0.053%
2014	WECC		Municipal Energy Agency of Nebraska	U.S.	179,336	179,336			0.021%	0.021%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2014	WECC		Platte River Power Authority	U.S.	3,199,023	3,199,023			0.369%	0.369%	0.000%	0.000%	0.071%	0.071%	0.000%	0.000%	0.080%
2014	WECC		Public Service Company of Colorado (Xcel)	U.S.	27,800,459	27,800,459			3.205%	3.205%	0.000%	0.000%	0.613%	0.613%	0.000%	0.000%	0.695%
2014	WECC		Raton Public Service	U.S.	56,435	56,435			0.007%	0.007%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		Town of Center	U.S.	14,924	14,924			0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability	U.S.	2,344,874	2,344,874			0.270%	0.270%	0.000%	0.000%	0.052%	0.052%	0.000%	0.000%	0.059%
2014	WECC		Western Area Power - Loveland, CO	U.S.	167,897	167,897			0.019%	0.019%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2014	WECC		Yampa Valley Electric Association	U.S.	558,130	558,130			0.064%	0.064%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.014%

2014 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2016 NERC and RE Assessments

Data Year	Regional Entity	ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2014	WECC		City of Aztec Electric Dept	U.S.	39,264	39,264			0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		City of Gallup	U.S.	184,512	184,512			0.021%	0.021%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.005%
2014	WECC		Jicarilla Apache Nation Power Authority	U.S.	14,373	14,373			0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Navajo Tribal Utility Authority	U.S.	265,744	265,744			0.031%	0.031%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2014	WECC		Navopache Electric Cooperative, Inc.	U.S.	349,024	349,024			0.040%	0.040%	0.000%	0.000%	0.008%	0.008%	0.000%	0.000%	0.009%
2014	WECC		Public Service Company of New Mexico	U.S.	10,634,559	10,634,559			1.226%	1.226%	0.000%	0.000%	0.234%	0.234%	0.000%	0.000%	0.266%
2014	WECC		The Incorporated County of Los Alamos	U.S.	349,311	349,311			0.040%	0.040%	0.000%	0.000%	0.008%	0.008%	0.000%	0.000%	0.009%
2014	WECC		Tri-State Generation & Transmission Association, Inc.	U.S.	2,422,858	2,422,858			0.279%	0.279%	0.000%	0.000%	0.053%	0.053%	0.000%	0.000%	0.061%
2014	WECC		US Dept of Energy - Kirtland AFB	U.S.	402,206	402,206			0.046%	0.046%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2014	WECC		Public Utility District No. 1 of Chelan County	U.S.	3,931,027	3,931,027			0.453%	0.453%	0.000%	0.000%	0.087%	0.087%	0.000%	0.000%	0.098%
2014	WECC		PUD No. 1 of Douglas County	U.S.	790,712	790,712			0.091%	0.091%	0.000%	0.000%	0.017%	0.017%	0.000%	0.000%	0.020%
2014	WECC		Okanogan PUD	U.S.	646,301	646,301			0.075%	0.075%	0.000%	0.000%	0.014%	0.014%	0.000%	0.000%	0.016%
2014	WECC		BPA - Douglas Pumping	U.S.	26,127	26,127			0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		BPA - Okanogan Pumping	U.S.	31,225	31,225			0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		BPA - Okanogan REA	U.S.	59,558	59,558			0.007%	0.007%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		BPA - USBR Load	U.S.	137,886	137,886			0.016%	0.016%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2014	WECC		BPA - Big Bend/Schrag Load	U.S.	42,691	42,691			0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		BPA - Kittitas Load	U.S.	7,108	7,108			0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Douglas Palisades / PUD No. 1 of DC	U.S.	20,173	20,173			0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%
2014	WECC		PUD No. 2 of Grant County	U.S.	4,196,190	4,196,190			0.484%	0.484%	0.000%	0.000%	0.092%	0.092%	0.000%	0.000%	0.105%
2014	WECC		City of Blaine	U.S.	78,627	78,627			0.009%	0.009%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2014	WECC		City of Sumas	U.S.	31,059	31,059			0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		Port of Seattle - Seattle-Tacoma International Airport	U.S.	142,493	142,493			0.016%	0.016%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.004%
2014	WECC		PUD No. 1 of Kittitas County	U.S.	16,516	16,516			0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		PUD No. 1 of Whatcom County	U.S.	5,345	5,345			0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Puget Sound Energy, Inc.	U.S.	23,931,942	23,931,942			2.759%	2.759%	0.000%	0.000%	0.528%	0.528%	0.000%	0.000%	0.598%
2014	WECC		Tanner Electric Cooperative	U.S.	97,347	97,347			0.011%	0.011%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2014	WECC		Salt River Project	U.S.	29,150,481	29,150,481			3.360%	3.360%	0.000%	0.000%	0.643%	0.643%	0.000%	0.000%	0.729%
2014	WECC		Seattle City Light	U.S.	9,899,341	9,899,341			1.141%	1.141%	0.000%	0.000%	0.218%	0.218%	0.000%	0.000%	0.247%
2014	WECC		Barrick Goldstrike Mines Inc.	U.S.	1,119,122	1,119,122			0.129%	0.129%	0.000%	0.000%	0.025%	0.025%	0.000%	0.000%	0.028%
2014	WECC		City of Fallon	U.S.	128,373	128,373			0.015%	0.015%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2014	WECC		Harney Electric Cooperative, Inc.	U.S.	123,363	123,363			0.014%	0.014%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2014	WECC		Mt. Wheeler Power	U.S.	542,216	542,216			0.063%	0.063%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.014%
2014	WECC		Sierra Pacific Power Company dba NV Energy	U.S.	9,176,885	9,176,885			1.058%	1.058%	0.000%	0.000%	0.202%	0.202%	0.000%	0.000%	0.229%
2014	WECC		Truckee Donner Public Utility District	U.S.	145,280	145,280			0.017%	0.017%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.004%
2014	WECC		Wells Rural Electric Cooperative	U.S.	668,243	668,243			0.077%	0.077%	0.000%	0.000%	0.015%	0.015%	0.000%	0.000%	0.017%
2014	WECC		City of Tacoma DBA Tacoma Power	U.S.	4,921,819	4,921,819			0.567%	0.567%	0.000%	0.000%	0.108%	0.108%	0.000%	0.000%	0.123%
2014	WECC		Tucson Electric Power Company	U.S.	15,261,630	15,261,630			1.759%	1.759%	0.000%	0.000%	0.336%	0.336%	0.000%	0.000%	0.381%
2014	WECC		Merced Irrigation District	U.S.	478,180	478,180			0.055%	0.055%	0.000%	0.000%	0.011%	0.011%	0.000%	0.000%	0.012%
2014	WECC		Turlock Irrigation District	U.S.	2,148,378	2,148,378			0.248%	0.248%	0.000%	0.000%	0.047%	0.047%	0.000%	0.000%	0.054%
2014	WECC		Basin Electric Power Cooperative	U.S.	3,046,997	3,046,997			0.351%	0.351%	0.000%	0.000%	0.067%	0.067%	0.000%	0.000%	0.076%
2014	WECC		Black Hills Power/Cheyenne Light Fuel & Power	U.S.	3,437,754	3,437,754			0.396%	0.396%	0.000%	0.000%	0.076%	0.076%	0.000%	0.000%	0.086%
2014	WECC		Black Hills State University South Dakota	U.S.	19,329	19,329			0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		City of Page	U.S.	87,206	87,206			0.010%	0.010%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2014	WECC		Colorado Springs Utilities	U.S.	4,508,371	4,508,371			0.520%	0.520%	0.000%	0.000%	0.099%	0.099%	0.000%	0.000%	0.113%
2014	WECC		Deseret Generation & Transmission Cooperative	U.S.	113,060	113,060			0.013%	0.013%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.003%
2014	WECC		City of Farmington	U.S.	1,098,783	1,098,783			0.127%	0.127%	0.000%	0.000%	0.024%	0.024%	0.000%	0.000%	0.027%
2014	WECC		Municipal Energy Agency of Nebraska	U.S.	673,854	673,854			0.078%	0.078%	0.000%	0.000%	0.015%	0.015%	0.000%	0.000%	0.017%
2014	WECC		Navajo Agricultural Products Industry (NAPI)	U.S.	8,806	8,806			0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Nebraska Public Power Marketing	U.S.	3,637	3,637			0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		PacifiCorp	U.S.	119,530	119,530			0.014%	0.014%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2014	WECC		Public Service Company of Colorado (Xcel)	U.S.	36,748	36,748			0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		Town of Fredonia	U.S.	10,884	10,884			0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability	U.S.	7,239,991	7,239,991			0.835%	0.835%	0.000%	0.000%	0.160%	0.160%	0.000%	0.000%	0.181%

2014 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2016 NERC and RE Assessments

Data Year	Regional Entity	ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2014	WECC		Western Area Power - Loveland, CO	U.S.	2,308,502	2,308,502			0.266%	0.266%	0.000%	0.000%	0.051%	0.051%	0.000%	0.000%	0.058%
2014	WECC		Western Area Power Administration - CRSP	U.S.	1,741,628	1,741,628			0.201%	0.201%	0.000%	0.000%	0.038%	0.038%	0.000%	0.000%	0.044%
2014	WECC		Wyoming Municipal Power Agency	U.S.	281,144	281,144			0.032%	0.032%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2014	WECC		Basin Electric Power Cooperative	U.S.	57,591	57,591			0.007%	0.007%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		Bonneville Power Administration	U.S.	11,131	11,131			0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Central Montana Electric Power Cooperative	U.S.	63,082	63,082			0.007%	0.007%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.002%
2014	WECC		Montana-Dakota Utilities Co.	U.S.	23,504	23,504			0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC	U.S.	242,255	242,255			0.028%	0.028%	0.000%	0.000%	0.005%	0.005%	0.000%	0.000%	0.006%
2014	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	414,174	414,174			0.048%	0.048%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2014	WECC		Aha Macav Power Service	U.S.	26,219	26,219			0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		Bureau of Reclamation (Desalter) - c/o DSW EMMO	U.S.	602	602			0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Bureau of Reclamation (Wellfield) - c/o DSW EMMO	U.S.	6,833	6,833			0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Central Arizona Water Conservation District	U.S.	2,598,724	2,598,724			0.300%	0.300%	0.000%	0.000%	0.057%	0.057%	0.000%	0.000%	0.065%
2014	WECC		City of Mesa	U.S.	251,453	251,453			0.029%	0.029%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.006%
2014	WECC		City of Needles	U.S.	28,897	28,897			0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2014	WECC		Colorado River Agency-Bureau of Indian Affairs	U.S.	12,923	12,923			0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Electrical District #2	U.S.	191,060	191,060			0.022%	0.022%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.005%
2014	WECC		Electrical District #2 - Coolidge Generating Station	U.S.	9,356	9,356			0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Silver State Energy - c/o Colorado River Commission of Nevada	U.S.	667,817	667,817			0.077%	0.077%	0.000%	0.000%	0.015%	0.015%	0.000%	0.000%	0.017%
2014	WECC		Southwest Transmission Cooperative, Inc.	U.S.	1,901,066	1,901,066			0.219%	0.219%	0.000%	0.000%	0.042%	0.042%	0.000%	0.000%	0.048%
2014	WECC		U.S. Army Yuma Proving Ground	U.S.	22,574	22,574			0.003%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%
2014	WECC		Wellton-Mohawk Irrigation & Drainage District	U.S.	2,886	2,886			0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2014	WECC		Western Area Power Administration-Desert Southwest Region	U.S.	4,144,167	4,144,167			0.478%	0.478%	0.000%	0.000%	0.091%	0.091%	0.000%	0.000%	0.104%
TOTAL WECC					867,474,309	733,730,165	121,733,108	12,011,036	100.000%	84.582%	14.033%	1.385%	19.121%	16.173%	2.683%	0.265%	18.337%
TOTAL ERO					4,536,826,392	4,001,404,260	523,411,096	12,011,036	800.000%	712.867%	85.748%	1.385%	100.000%	88.198%	11.537%	0.265%	100.000%

Summary by Regional Entity					Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL									
2014	FRCC				224,665,737	224,665,737	-	-	100.000%	100.000%	0.000%	0.000%	4.952%	4.952%	0.000%	0.000%	5.615%
2014	MRO				288,744,100	241,078,112	47,665,988	-	100.000%	83.492%	16.508%	0.000%	6.364%	5.314%	1.051%	0.000%	6.025%
2014	NPCC				641,246,000	287,234,000	354,012,000	-	100.000%	44.793%	55.207%	0.000%	14.134%	6.331%	7.803%	0.000%	7.178%
2014	RF				914,112,367	914,112,367	-	-	100.000%	100.000%	0.000%	0.000%	20.149%	20.149%	0.000%	0.000%	22.845%
2014	SERC				1,028,847,097	1,028,847,097	-	-	100.000%	100.000%	0.000%	0.000%	22.678%	22.678%	0.000%	0.000%	25.712%
2014	SPP				230,481,153	230,481,153	-	-	100.000%	100.000%	0.000%	0.000%	5.080%	5.080%	0.000%	0.000%	5.760%
2014	TRE				341,255,629	341,255,629	-	-	100.000%	100.000%	0.000%	0.000%	7.522%	7.522%	0.000%	0.000%	8.528%
2014	WECC				867,474,309	733,730,165	121,733,108	12,011,036	100.000%	84.582%	14.033%	1.385%	19.121%	16.173%	2.683%	0.265%	18.337%
Total					4,536,826,392	4,001,404,260	523,411,096	12,011,036	800.000%	712.867%	85.748%	1.385%	100.000%	88.198%	11.537%	0.265%	100.000%

2014 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2016 NERC and RE Assessments

Data Year	Regional Entity	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
2014	FRCC	1074	Alachua, City of	U.S.	5,211	5,211	-	-	1,589	1,589	-	-	3,622	3,622	-	-
2014	FRCC	1075	Bartow, City of	U.S.	12,224	12,224	-	-	3,727	3,727	-	-	8,497	8,497	-	-
2014	FRCC	1076	Chattahoochee, City of	U.S.	1,620	1,620	-	-	494	494	-	-	1,126	1,126	-	-
2014	FRCC	1077	Florida Keys Electric Cooperative Assn	U.S.	31,410	31,410	-	-	9,577	9,577	-	-	21,833	21,833	-	-
2014	FRCC	1078	Florida Power & Light Co.	U.S.	4,684,636	4,684,636	-	-	1,428,375	1,428,375	-	-	3,256,261	3,256,261	-	-
2014	FRCC	1079	Florida Public Utilities Company	U.S.	15,365	15,365	-	-	4,685	4,685	-	-	10,680	10,680	-	-
2014	FRCC	1080	Gainesville Regional Utilities	U.S.	74,463	74,463	-	-	22,704	22,704	-	-	51,759	51,759	-	-
2014	FRCC	1081	Homestead, City of	U.S.	22,241	22,241	-	-	6,782	6,782	-	-	15,460	15,460	-	-
2014	FRCC	1082	JEA	U.S.	522,802	522,802	-	-	159,406	159,406	-	-	363,396	363,396	-	-
2014	FRCC	1083	Lakeland Electric	U.S.	127,591	127,591	-	-	38,903	38,903	-	-	88,688	88,688	-	-
2014	FRCC	1626	Lee County Electric Cooperative, Inc	U.S.	162,627	162,627	-	-	49,586	49,586	-	-	113,041	113,041	-	-
2014	FRCC	1661	City of Lake Worth	U.S.	19,016	19,016	-	-	5,798	5,798	-	-	13,218	13,218	-	-
2014	FRCC	1084	Mount Dora, City of	U.S.	3,847	3,847	-	-	1,173	1,173	-	-	2,674	2,674	-	-
2014	FRCC	1085	New Smyrna Beach, Utilities Commission of	U.S.	17,360	17,360	-	-	5,293	5,293	-	-	12,067	12,067	-	-
2014	FRCC	1086	Orlando Utilities Commission	U.S.	249,707	249,707	-	-	76,137	76,137	-	-	173,570	173,570	-	-
2014	FRCC	1087	Duke Energy Florida	U.S.	1,686,802	1,686,802	-	-	514,317	514,317	-	-	1,172,486	1,172,486	-	-
2014	FRCC	1088	Quincy, City of	U.S.	5,760	5,760	-	-	1,756	1,756	-	-	4,004	4,004	-	-
2014	FRCC	1089	Reedy Creek Improvement District	U.S.	50,638	50,638	-	-	15,440	15,440	-	-	35,198	35,198	-	-
2014	FRCC	1090	St. Cloud, City of (OUC)	U.S.	27,123	27,123	-	-	8,270	8,270	-	-	18,853	18,853	-	-
2014	FRCC	1091	Tallahassee, City of	U.S.	116,768	116,768	-	-	35,603	35,603	-	-	81,165	81,165	-	-
2014	FRCC	1092	Tampa Electric Company	U.S.	819,836	819,836	-	-	249,973	249,973	-	-	569,863	569,863	-	-
2014	FRCC	1603	City of Vero Beach	U.S.	31,452	31,452	-	-	9,590	9,590	-	-	21,862	21,862	-	-
2014	FRCC	1093	Wauchula, City of	U.S.	2,704	2,704	-	-	824	824	-	-	1,879	1,879	-	-
2014	FRCC	1094	Williston, City of	U.S.	1,393	1,393	-	-	425	425	-	-	968	968	-	-
2014	FRCC	1095	Winter Park, City of	U.S.	18,567	18,567	-	-	5,661	5,661	-	-	12,906	12,906	-	-
2014	FRCC	1072	Florida Municipal Power Agency	U.S.	238,183	238,183	-	-	72,623	72,623	-	-	165,559	165,559	-	-
2014	FRCC	1073	Seminole Electric Cooperative	U.S.	586,716	586,716	-	-	178,893	178,893	-	-	407,823	407,823	-	-
TOTAL FRCC					9,536,062	9,536,062	-	-	2,907,605	2,907,605	-	-	6,628,457	6,628,457	-	-
2014	MRO	1199	Basin Electric Power Cooperative	U.S.	815,183	815,183	-	-	208,626	208,626	-	-	606,557	606,557	-	-
2014	MRO	1201	Central Iowa Power Cooperative (CIPCO)	U.S.	142,286	142,286	-	-	36,414	36,414	-	-	105,871	105,871	-	-
2014	MRO	1204	Corn Belt Power Cooperative	U.S.	95,993	95,993	-	-	24,567	24,567	-	-	71,426	71,426	-	-
2014	MRO	1207	Dairyland Power Cooperative	U.S.	282,504	282,504	-	-	72,300	72,300	-	-	210,204	210,204	-	-
2014	MRO	1210	Great River Energy	U.S.	710,815	710,815	-	-	181,916	181,916	-	-	528,900	528,900	-	-
2014	MRO	1222	Minnkota Power Cooperative, Inc.	U.S.	227,997	227,997	-	-	58,350	58,350	-	-	169,647	169,647	-	-
2014	MRO	1230	Nebraska Public Power District	U.S.	686,283	686,283	-	-	175,637	175,637	-	-	510,646	510,646	-	-
2014	MRO	1232	Omaha Public Power District	U.S.	569,159	569,159	-	-	145,662	145,662	-	-	423,496	423,496	-	-
2014	MRO	1237	Southern Montana Generation and Transmission	U.S.	443	443	-	-	113	113	-	-	330	330	-	-
2014	MRO	1240	Western Area Power Administration (UM)	U.S.	434,492	434,492	-	-	111,198	111,198	-	-	323,294	323,294	-	-
2014	MRO	1239	Western Area Power Administration (LM)	U.S.	6,663	6,663	-	-	1,705	1,705	-	-	4,957	4,957	-	-
2014	MRO	1217	Manitoba Hydro	CAN	1,252,948	-	1,252,948	-	323,653	-	323,653	-	929,295	-	929,295	-
2014	MRO	1235	SaskPower	CAN	1,201,558	-	1,201,558	-	310,378	-	310,378	-	891,180	-	891,180	-
2014	MRO	1195	Alliant Energy (Alliant East - WPL & Alliant West IPL)	U.S.	1,485,704	1,485,704	-	-	380,229	380,229	-	-	1,105,475	1,105,475	-	-
2014	MRO	1216	Madison, Gas and Electric	U.S.	174,193	174,193	-	-	44,580	44,580	-	-	129,613	129,613	-	-
2014	MRO	1220	MidAmerican Energy Company	U.S.	1,240,261	1,240,261	-	-	317,414	317,414	-	-	922,846	922,846	-	-
2014	MRO	1221	Minnesota Power	U.S.	673,330	673,330	-	-	172,322	172,322	-	-	501,008	501,008	-	-
2014	MRO	1226	Montana-Dakota Utilities Co.	U.S.	164,384	164,384	-	-	42,070	42,070	-	-	122,314	122,314	-	-
2014	MRO	1231	NorthWestern Energy	U.S.	79,895	79,895	-	-	20,447	20,447	-	-	59,448	59,448	-	-
2014	MRO	1233	Otter Tail Power Company	U.S.	241,756	241,756	-	-	61,871	61,871	-	-	179,884	179,884	-	-
2014	MRO	1664	Wisconsin Public Service (WPS)	U.S.	621,176	621,176	-	-	158,975	158,975	-	-	462,201	462,201	-	-
2014	MRO	1665	Upper Peninsula Power Company (UPPCO)	U.S.	37,598	37,598	-	-	9,622	9,622	-	-	27,976	27,976	-	-
2014	MRO	1244	Xcel Energy Company (NSP)	U.S.	2,286,431	2,286,431	-	-	585,156	585,156	-	-	1,701,275	1,701,275	-	-
2014	MRO	1196	Ames Municipal Electric System	U.S.	38,832	38,832	-	-	9,938	9,938	-	-	28,894	28,894	-	-
2014	MRO	1604	Atlantic Municipal Utilities	U.S.	3,849	3,849	-	-	985	985	-	-	2,864	2,864	-	-
2014	MRO	1476	Badger Power Marketing Authority of Wisconsin, Inc.	U.S.	20,596	20,596	-	-	5,271	5,271	-	-	15,325	15,325	-	-
2014	MRO	1200	Cedar Falls Municipal Utilities	U.S.	26,897	26,897	-	-	6,884	6,884	-	-	20,014	20,014	-	-
2014	MRO	1477	Central Minnesota Municipal Power Agency (CMMPA)	U.S.	23,420	23,420	-	-	5,994	5,994	-	-	17,426	17,426	-	-
2014	MRO	1203	City of Escanaba	U.S.	7,170	7,170	-	-	1,835	1,835	-	-	5,335	5,335	-	-

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					Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total
2014	MRO	1205	Falls City Water & Light Department	U.S.	2,905	2,905	-	-	743	743	-	-	2,162	2,162	-	-
2014	MRO	1206	Fremont Department of Utilities	U.S.	22,150	22,150	-	-	5,669	5,669	-	-	16,481	16,481	-	-
2014	MRO	1208	Geneseo Municipal Utilities	U.S.	3,317	3,317	-	-	849	849	-	-	2,468	2,468	-	-
2014	MRO	1209	Grand Island Utilities Department	U.S.	38,381	38,381	-	-	9,823	9,823	-	-	28,558	28,558	-	-
2014	MRO	1606	Harlan Municipal Utilities	U.S.	1,275	1,275	-	-	326	326	-	-	948	948	-	-
2014	MRO	1211	Hastings Utilities	U.S.	21,538	21,538	-	-	5,512	5,512	-	-	16,026	16,026	-	-
2014	MRO	1212	Heartland Consumers Power District	U.S.	43,989	43,989	-	-	11,258	11,258	-	-	32,731	32,731	-	-
2014	MRO	1213	Hutchinson Utilities Commission	U.S.	14,974	14,974	-	-	3,832	3,832	-	-	11,142	11,142	-	-
2014	MRO	1215	Lincoln Electric System	U.S.	164,878	164,878	-	-	42,196	42,196	-	-	122,681	122,681	-	-
2014	MRO	1218	Manitowoc Public Utilities	U.S.	27,372	27,372	-	-	7,005	7,005	-	-	20,367	20,367	-	-
2014	MRO	1223	Missouri River Energy Services	U.S.	123,473	123,473	-	-	31,600	31,600	-	-	91,873	91,873	-	-
2014	MRO	1224	MN Municipal Power Agency (MMPA)	U.S.	77,466	77,466	-	-	19,826	19,826	-	-	57,640	57,640	-	-
2014	MRO	1607	Montezuma Municipal Light & Power	U.S.	1,542	1,542	-	-	395	395	-	-	1,147	1,147	-	-
2014	MRO	1227	Municipal Energy Agency of Nebraska	U.S.	58,065	58,065	-	-	14,860	14,860	-	-	43,205	43,205	-	-
2014	MRO	1228	Muscatine Power and Water	U.S.	44,217	44,217	-	-	11,316	11,316	-	-	32,901	32,901	-	-
2014	MRO	1229	Nebraska City Utilities	U.S.	8,512	8,512	-	-	2,178	2,178	-	-	6,333	6,333	-	-
2014	MRO	1234	Rochester Public Utilities	U.S.	80	80	-	-	21	21	-	-	60	60	-	-
2014	MRO	1236	Southern Minnesota Municipal Power Agency	U.S.	148,614	148,614	-	-	38,034	38,034	-	-	110,580	110,580	-	-
2014	MRO	1241	Willmar Municipal Utilities	U.S.	13,230	13,230	-	-	3,386	3,386	-	-	9,844	9,844	-	-
2014	MRO	1242	Wisconsin Public Power, Inc. (East and West regions)	U.S.	277,813	277,813	-	-	71,099	71,099	-	-	206,713	206,713	-	-
TOTAL MRO					14,645,605	12,191,099	2,454,506	-	3,754,043	3,120,012	634,031	-	10,891,562	9,071,087	1,820,475	-
2014	NPCC	1336	New England	U.S.	5,612,648	5,612,648	-	-	1,645,888	1,645,888	-	-	3,966,760	3,966,760	-	-
2014	NPCC	1339	New York	U.S.	7,063,926	7,063,926	-	-	2,071,470	2,071,470	-	-	4,992,456	4,992,456	-	-
2014	NPCC	1337	Ontario	Canada	3,186,646	-	3,186,646	-	1,173,912	-	1,173,912	-	2,012,733	-	2,012,733	-
2014	NPCC	1341	Quebec	Canada	4,600,602	-	4,600,602	-	1,765,517	-	1,765,517	-	2,835,085	-	2,835,085	-
2014	NPCC	1663	New Brunswick	Canada	413,922	-	413,922	-	117,079	-	117,079	-	296,844	-	296,844	-
2014	NPCC	1340	Nova Scotia	Canada	390,890	-	390,890	-	145,572	-	145,572	-	245,318	-	245,318	-
TOTAL NPCC					21,268,634	12,676,574	8,592,060	-	6,919,438	3,717,358	3,202,080	-	14,349,196	8,959,216	5,389,980	-
2014	RF	1102	Cannelton Utilities	U.S.	567	567	-	-	215	215	-	-	352	352	-	-
2014	RF	1106	City of Croswell	U.S.	1,363	1,363	-	-	517	517	-	-	846	846	-	-
2014	RF	1490	City of Lansing	U.S.	75,957	75,957	-	-	28,804	28,804	-	-	47,154	47,154	-	-
2014	RF	1120	Cloverland Electric Cooperative	U.S.	29,268	29,268	-	-	11,099	11,099	-	-	18,169	18,169	-	-
2014	RF	1122	CMS ERM Michigan LLC	U.S.	4,089	4,089	-	-	1,551	1,551	-	-	2,539	2,539	-	-
2014	RF	1124	Constellation New Energy (MECS-CONS)	U.S.	31,344	31,344	-	-	11,886	11,886	-	-	19,458	19,458	-	-
2014	RF	1123	Constellation New Energy (MECS-DET)	U.S.	34,088	34,088	-	-	12,926	12,926	-	-	21,161	21,161	-	-
2014	RF	1126	Consumers Energy Company	U.S.	1,134,917	1,134,917	-	-	430,369	430,369	-	-	704,548	704,548	-	-
2014	RF	1128	Detroit Edison Company	U.S.	1,555,968	1,555,968	-	-	590,035	590,035	-	-	965,933	965,933	-	-
2014	RF	1166	Duke Energy Indiana	U.S.	1,049,690	1,049,690	-	-	398,051	398,051	-	-	651,640	651,640	-	-
2014	RF	1135	Ferdinand Municipal Light & Water	U.S.	1,590	1,590	-	-	603	603	-	-	987	987	-	-
2014	RF	1646	FirstEnergy Solutions (MECS-CONS)	U.S.	26,933	26,933	-	-	10,213	10,213	-	-	16,720	16,720	-	-
2014	RF	1549	FirstEnergy Solutions (MECS-DET)	U.S.	74,294	74,294	-	-	28,173	28,173	-	-	46,121	46,121	-	-
2014	RF	1612	Glacial Energy (MECS-DET)	U.S.	2,332	2,332	-	-	884	884	-	-	1,447	1,447	-	-
2014	RF	1145	Hoosier Energy	U.S.	260,713	260,713	-	-	98,864	98,864	-	-	161,848	161,848	-	-
2014	RF	1148	Indiana Municipal Power Agency (DUKE CIN)	U.S.	106,608	106,608	-	-	40,427	40,427	-	-	66,181	66,181	-	-
2014	RF	1485	Indiana Municipal Power Agency (NIPSCO)	U.S.	14,747	14,747	-	-	5,592	5,592	-	-	9,155	9,155	-	-
2014	RF	1486	Indiana Municipal Power Agency (SIGE)	U.S.	20,343	20,343	-	-	7,714	7,714	-	-	12,629	12,629	-	-
2014	RF	1149	Indianapolis Power & Light Co.	U.S.	504,098	504,098	-	-	191,158	191,158	-	-	312,940	312,940	-	-
2014	RF	1553	Integrus Energy Services (MECS-CONS)	U.S.	32,479	32,479	-	-	12,316	12,316	-	-	20,163	20,163	-	-
2014	RF	1554	Integrus Energy Services (MECS-DET)	U.S.	26,688	26,688	-	-	10,120	10,120	-	-	16,567	16,567	-	-
2014	RF	1666	Integrus Energy Services (WEPC)	U.S.	78,978	78,978	-	-	29,949	29,949	-	-	49,029	49,029	-	-
2014	RF	1614	Just Energy (MECS-DET)	U.S.	1,249	1,249	-	-	474	474	-	-	776	776	-	-
2014	RF	1154	Michigan Public Power Agency	U.S.	100,500	100,500	-	-	38,110	38,110	-	-	62,390	62,390	-	-
2014	RF	1155	Michigan South Central Power Agency	U.S.	22,228	22,228	-	-	8,429	8,429	-	-	13,799	13,799	-	-
2014	RF	1158	MidAmerican Energy Company Retail	U.S.	3,102	3,102	-	-	1,176	1,176	-	-	1,925	1,925	-	-
2014	RF	1163	Northern Indiana Public Service Co.	U.S.	625,980	625,980	-	-	237,376	237,376	-	-	388,603	388,603	-	-
2014	RF	1164	Ontonagon County Rural Electrification Assoc.	U.S.	993	993	-	-	377	377	-	-	617	617	-	-



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					Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total
2014	RF	1265	PJM Interconnection, LLC	U.S.	23,911,476	23,911,476	-	-	9,067,419	9,067,419	-	-	14,844,058	14,844,058	-	-
2014	RF	1172	Noble Americas Energy Solutions (MECS-CONS)	U.S.	19,190	19,190	-	-	7,277	7,277	-	-	11,913	11,913	-	-
2014	RF	1171	Noble Americas Energy Solutions (MECS-DET)	U.S.	23,076	23,076	-	-	8,751	8,751	-	-	14,326	14,326	-	-
2014	RF	1176	Direct Energy (fka:Strategic Energy,LLC) (MECS-CONS)	U.S.	1,113	1,113	-	-	422	422	-	-	691	691	-	-
2014	RF	1174	Direct Energy (fka:Strategic Energy,LLC) (MECS-DET)	U.S.	14,134	14,134	-	-	5,360	5,360	-	-	8,774	8,774	-	-
2014	RF	1581	Spartan Renewable Energy	U.S.	2,319	2,319	-	-	880	880	-	-	1,440	1,440	-	-
2014	RF	1180	Thumb Electric Cooperative	U.S.	6,369	6,369	-	-	2,415	2,415	-	-	3,954	3,954	-	-
2014	RF	1662	Ohio Valley Electric Corporation	U.S.	15,678	15,678	-	-	5,945	5,945	-	-	9,732	9,732	-	-
2014	RF	1181	Vectren Energy Delivery of IN	U.S.	200,381	200,381	-	-	75,986	75,986	-	-	124,395	124,395	-	-
2014	RF	1183	Village of Sebewaing	U.S.	1,451	1,451	-	-	550	550	-	-	901	901	-	-
2014	RF	1184	Wabash Valley Power Association Inc. (DUKE CIN)	U.S.	98,578	98,578	-	-	37,381	37,381	-	-	61,196	61,196	-	-
2014	RF	1488	Wabash Valley Power Association Inc.(NIPSCO)	U.S.	58,196	58,196	-	-	22,068	22,068	-	-	36,128	36,128	-	-
2014	RF	1185	Wisconsin Electric Power Co.	U.S.	901,569	901,569	-	-	341,882	341,882	-	-	559,687	559,687	-	-
2014	RF	1189	Wolverine Power Marketing Cooperative	U.S.	26,723	26,723	-	-	10,133	10,133	-	-	16,589	16,589	-	-
2014	RF	1191	Wolverine Power Supply Cooperative	U.S.	91,435	91,435	-	-	34,673	34,673	-	-	56,762	56,762	-	-
2014	RF	1190	Wolverine Power Marketing Cooperative(MECS-DET)	U.S.	4,780	4,780	-	-	1,813	1,813	-	-	2,968	2,968	-	-
<b>TOTAL RELIABILITYFIRST</b>					<b>31,197,572</b>	<b>31,197,572</b>	<b>-</b>	<b>-</b>	<b>11,830,363</b>	<b>11,830,363</b>	<b>-</b>	<b>-</b>	<b>19,367,209</b>	<b>19,367,209</b>	<b>-</b>	<b>-</b>
2014	SERC	1267	Alabama Municipal Electric Authority	U.S.	90,534	90,534	-	-	44,571	44,571	-	-	45,963	45,963	-	-
2014	SERC	1268	Alabama Power Company	U.S.	1,581,894	1,581,894	-	-	778,789	778,789	-	-	803,105	803,105	-	-
2014	SERC	1269	Ameren - Illinois	U.S.	1,130,722	1,130,722	-	-	556,671	556,671	-	-	574,051	574,051	-	-
2014	SERC	1271	Ameren - Missouri	U.S.	1,102,699	1,102,699	-	-	542,874	542,874	-	-	559,824	559,824	-	-
2014	SERC	1272	APGI - Yadkin Division	U.S.	462	462	-	-	227	227	-	-	234	234	-	-
2014	SERC	1273	Associated Electric Cooperative Inc.	U.S.	516,708	516,708	-	-	254,383	254,383	-	-	262,325	262,325	-	-
2014	SERC	1582	Beauregard Electric Cooperative, Inc.	U.S.	29,375	29,375	-	-	14,462	14,462	-	-	14,913	14,913	-	-
2014	SERC	1462	Benton Utility District	U.S.	6,678	6,678	-	-	3,288	3,288	-	-	3,390	3,390	-	-
2014	SERC	1274	Big Rivers Electric Corporation	U.S.	101,916	101,916	-	-	50,175	50,175	-	-	51,741	51,741	-	-
2014	SERC	1275	Black Warrior EMC	U.S.	11,837	11,837	-	-	5,827	5,827	-	-	6,009	6,009	-	-
2014	SERC	1276	Blue Ridge EMC	U.S.	37,044	37,044	-	-	18,237	18,237	-	-	18,807	18,807	-	-
2014	SERC	1628	Brazos Electric Power Cooperative, Inc.	U.S.	12,052	12,052	-	-	5,933	5,933	-	-	6,119	6,119	-	-
2014	SERC	1463	Canton, MS	U.S.	3,438	3,438	-	-	1,693	1,693	-	-	1,745	1,745	-	-
2014	SERC	1277	Central Electric Power Cooperative Inc.	U.S.	435,961	435,961	-	-	214,630	214,630	-	-	221,331	221,331	-	-
2014	SERC	1667	Century Aluminum - Hawesville	U.S.	110,747	110,747	-	-	54,522	54,522	-	-	56,225	56,225	-	-
2014	SERC	1668	Century Aluminum - Sebree	U.S.	88,702	88,702	-	-	43,669	43,669	-	-	45,033	45,033	-	-
2014	SERC	1278	City of Blountstown FL	U.S.	1,011	1,011	-	-	498	498	-	-	513	513	-	-
2014	SERC	1279	City of Camden SC	U.S.	5,241	5,241	-	-	2,580	2,580	-	-	2,661	2,661	-	-
2014	SERC	1280	City of Collins MS	U.S.	1,209	1,209	-	-	595	595	-	-	614	614	-	-
2014	SERC	1281	City of Columbia MO	U.S.	31,919	31,919	-	-	15,714	15,714	-	-	16,205	16,205	-	-
2014	SERC	1282	City of Conway AR (Conway Corporation)	U.S.	26,497	26,497	-	-	13,045	13,045	-	-	13,452	13,452	-	-
2014	SERC	1284	City of Evergreen AL	U.S.	1,527	1,527	-	-	752	752	-	-	775	775	-	-
2014	SERC	1285	City of Hampton GA	U.S.	815	815	-	-	401	401	-	-	414	414	-	-
2014	SERC	1286	City of Hartford AL	U.S.	803	803	-	-	395	395	-	-	408	408	-	-
2014	SERC	1287	City of Henderson (KY) Municipal Power & Light	U.S.	16,806	16,806	-	-	8,274	8,274	-	-	8,532	8,532	-	-
2014	SERC	1288	City of North Little Rock AR (DENL)	U.S.	24,959	24,959	-	-	12,287	12,287	-	-	12,671	12,671	-	-
2014	SERC	1289	City of Orangeburg SC Department of Public Utilities	U.S.	22,660	22,660	-	-	11,156	11,156	-	-	11,504	11,504	-	-
2014	SERC	1290	City of Robertsdale AL	U.S.	2,245	2,245	-	-	1,105	1,105	-	-	1,140	1,140	-	-
2014	SERC	1291	City of Ruston LA (DERS)	U.S.	7,209	7,209	-	-	3,549	3,549	-	-	3,660	3,660	-	-
2014	SERC	1292	Seneca Light & Power	U.S.	4,321	4,321	-	-	2,127	2,127	-	-	2,194	2,194	-	-
2014	SERC	1115	City of Springfield (CWLP)	U.S.	48,585	48,585	-	-	23,919	23,919	-	-	24,666	24,666	-	-
2014	SERC	1465	City of Thayer, MO	U.S.	622	622	-	-	306	306	-	-	316	316	-	-
2014	SERC	1293	City of Troy AL	U.S.	11,347	11,347	-	-	5,586	5,586	-	-	5,761	5,761	-	-
2014	SERC	1294	City of West Memphis AR (West Memphis Utilities)	U.S.	10,244	10,244	-	-	5,043	5,043	-	-	5,201	5,201	-	-
2014	SERC	1583	Claiborne Electric Cooperative, Inc.	U.S.	17,631	17,631	-	-	8,680	8,680	-	-	8,951	8,951	-	-
2014	SERC	1584	Concordia Electric Cooperative, Inc.	U.S.	6,916	6,916	-	-	3,405	3,405	-	-	3,511	3,511	-	-
2014	SERC	1283	Dalton Utilities	U.S.	43,036	43,036	-	-	21,187	21,187	-	-	21,849	21,849	-	-
2014	SERC	1585	Dixie Electric Membership Corporation	U.S.	59,550	59,550	-	-	29,317	29,317	-	-	30,233	30,233	-	-
2014	SERC	1295	Dominion Virginia Power	U.S.	2,240,668	2,240,668	-	-	1,103,113	1,103,113	-	-	1,137,555	1,137,555	-	-
2014	SERC	1296	Duke Energy Carolinas, LLC	U.S.	2,194,492	2,194,492	-	-	1,080,380	1,080,380	-	-	1,114,112	1,114,112	-	-

2014 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2016 NERC and RE Assessments

Data Year	Regional Entity	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
2014	SERC	1466	Durant, MS	U.S.	745	745	-	-	367	367	-	-	378	378	-	-
2014	SERC	1478	LG&E and KU Services Company as agent for LG&E Company and KUCompan	U.S.	934,648	934,648	-	-	460,140	460,140	-	-	474,507	474,507	-	-
2014	SERC	1297	East Kentucky Power Cooperative	U.S.	368,663	368,663	-	-	181,498	181,498	-	-	187,165	187,165	-	-
2014	SERC	1298	East Mississippi Electric Power Association	U.S.	12,075	12,075	-	-	5,945	5,945	-	-	6,130	6,130	-	-
2014	SERC	1669	Electricities of North Carolina Inc	U.S.	308,766	308,766	-	-	152,010	152,010	-	-	156,756	156,756	-	-
2014	SERC	1300	EnergyUnited EMC	U.S.	68,615	68,615	-	-	33,780	33,780	-	-	34,835	34,835	-	-
2014	SERC	1301	Entergy	U.S.	3,051,574	3,051,574	-	-	1,502,333	1,502,333	-	-	1,549,240	1,549,240	-	-
2014	SERC	1302	Fayetteville (NC) Public Works Commission	U.S.	57,926	57,926	-	-	28,518	28,518	-	-	29,408	29,408	-	-
2014	SERC	1303	Florida Public Utilities (FL Panhandle Load)	U.S.	8,297	8,297	-	-	4,085	4,085	-	-	4,212	4,212	-	-
2014	SERC	1304	French Broad EMC	U.S.	14,288	14,288	-	-	7,034	7,034	-	-	7,254	7,254	-	-
2014	SERC	1305	Georgia Power Company	U.S.	2,279,668	2,279,668	-	-	1,122,313	1,122,313	-	-	1,157,355	1,157,355	-	-
2014	SERC	1306	Georgia System Optns Corporation	U.S.	1,040,666	1,040,666	-	-	512,335	512,335	-	-	528,331	528,331	-	-
2014	SERC	1479	Greenwood (MS) Utilities Commission	U.S.	7,201	7,201	-	-	3,545	3,545	-	-	3,656	3,656	-	-
2014	SERC	1307	Greenwood (SC) Commissioners of Public Works	U.S.	8,599	8,599	-	-	4,233	4,233	-	-	4,366	4,366	-	-
2014	SERC	1308	Gulf Power Company	U.S.	307,337	307,337	-	-	151,306	151,306	-	-	156,030	156,030	-	-
2014	SERC	1586	Haywood EMC	U.S.	8,344	8,344	-	-	4,108	4,108	-	-	4,236	4,236	-	-
2014	SERC	1309	Illinois Municipal Electric Agency	U.S.	51,146	51,146	-	-	25,180	25,180	-	-	25,966	25,966	-	-
2014	SERC	1480	Itta Bena, MS	U.S.	507	507	-	-	250	250	-	-	257	257	-	-
2014	SERC	1587	Jefferson Davis Electric Cooperative, Inc.	U.S.	7,683	7,683	-	-	3,782	3,782	-	-	3,900	3,900	-	-
2014	SERC	1617	Kentucky Municipal Power	U.S.	18,542	18,542	-	-	9,129	9,129	-	-	9,414	9,414	-	-
2014	SERC	1481	Kosciusko, MS	U.S.	1,996	1,996	-	-	983	983	-	-	1,014	1,014	-	-
2014	SERC	1482	Leland, MS	U.S.	852	852	-	-	420	420	-	-	433	433	-	-
2014	SERC		Lockhart Power Company	U.S.	9,352	9,352	-	-	4,604	4,604	-	-	4,748	4,748	-	-
2014	SERC	1313	McCormick Commission of Public Works	U.S.	568	568	-	-	280	280	-	-	288	288	-	-
2014	SERC	1314	Mississippi Power Company	U.S.	277,461	277,461	-	-	136,598	136,598	-	-	140,863	140,863	-	-
2014	SERC	1630	Mt. Carmel Public Utility	U.S.	2,836	2,836	-	-	1,396	1,396	-	-	1,440	1,440	-	-
2014	SERC	1315	Municipal Electric Authority of Georgia	U.S.	287,239	287,239	-	-	141,412	141,412	-	-	145,827	145,827	-	-
2014	SERC	1316	N.C. Electric Membership Corp.	U.S.	338,489	338,489	-	-	166,643	166,643	-	-	171,846	171,846	-	-
2014	SERC	1588	Northeast Louisiana Power Cooperative, Inc.	U.S.	8,578	8,578	-	-	4,223	4,223	-	-	4,355	4,355	-	-
2014	SERC	1574	Northern Virginia Electric Cooperative	U.S.	110,427	110,427	-	-	54,365	54,365	-	-	56,062	56,062	-	-
2014	SERC	1319	Old Dominion Electric Cooperative	U.S.	151,078	151,078	-	-	74,378	74,378	-	-	76,700	76,700	-	-
2014	SERC	1618	Osceola (Arkansas) Municipal Light and Power	U.S.	4,280	4,280	-	-	2,107	2,107	-	-	2,173	2,173	-	-
2014	SERC	1320	Owensboro (KY) Municipal Utilities	U.S.	22,635	22,635	-	-	11,143	11,143	-	-	11,491	11,491	-	-
2014	SERC	1321	Piedmont EMC in Duke and Progress Areas	U.S.	13,863	13,863	-	-	6,825	6,825	-	-	7,038	7,038	-	-
2014	SERC	1323	Piedmont Municipal Power Agency (PMPA)	U.S.	60,747	60,747	-	-	29,907	29,907	-	-	30,840	30,840	-	-
2014	SERC	1589	Pointe Coupee Electric Memb. Corp.	U.S.	6,946	6,946	-	-	3,420	3,420	-	-	3,526	3,526	-	-
2014	SERC	1266	PowerSouth Energy	U.S.	232,550	232,550	-	-	114,487	114,487	-	-	118,062	118,062	-	-
2014	SERC	1330	Prairie Power, Inc.	U.S.	42,681	42,681	-	-	21,012	21,012	-	-	21,669	21,669	-	-
2014	SERC	1324	Duke Energy Progress	U.S.	1,223,176	1,223,176	-	-	602,187	602,187	-	-	620,989	620,989	-	-
2014	SERC	1325	Rutherford EMC	U.S.	35,582	35,582	-	-	17,518	17,518	-	-	18,065	18,065	-	-
2014	SERC	1631	Sam Rayburn G&T Electric Cooperative Inc.	U.S.	48,975	48,975	-	-	24,111	24,111	-	-	24,864	24,864	-	-
2014	SERC	1326	South Carolina Electric & Gas Company	U.S.	617,115	617,115	-	-	303,814	303,814	-	-	313,300	313,300	-	-
2014	SERC	1327	South Carolina Public Service Authority	U.S.	299,799	299,799	-	-	147,596	147,596	-	-	152,204	152,204	-	-
2014	SERC	1590	South Louisiana Electric Cooperative Association	U.S.	16,721	16,721	-	-	8,232	8,232	-	-	8,489	8,489	-	-
2014	SERC	1328	South Mississippi Electric Power Association	U.S.	269,638	269,638	-	-	132,747	132,747	-	-	136,891	136,891	-	-
2014	SERC	1329	Southern Illinois Power Cooperative	U.S.	43,786	43,786	-	-	21,557	21,557	-	-	22,230	22,230	-	-
2014	SERC	1591	Southwest Louisiana Electric Membership Corporation	U.S.	71,256	71,256	-	-	35,080	35,080	-	-	36,176	36,176	-	-
2014	SERC	1619	Southwestern Electric Cooperative, Inc.	U.S.	12,024	12,024	-	-	5,920	5,920	-	-	6,104	6,104	-	-
2014	SERC	1331	Tennessee Valley Authority	U.S.	4,193,274	4,193,274	-	-	2,064,409	2,064,409	-	-	2,128,865	2,128,865	-	-
2014	SERC	1632	Tex-La Electric Cooperative of Texas, Inc	U.S.	5,448	5,448	-	-	2,682	2,682	-	-	2,766	2,766	-	-
2014	SERC	1332	Tombigbee Electric Cooperative Inc.	U.S.	3,513	3,513	-	-	1,730	1,730	-	-	1,784	1,784	-	-
2014	SERC	1594	Town of Sharpsburg, N.C.	U.S.	543	543	-	-	267	267	-	-	276	276	-	-
2014	SERC	1595	Town of Stantonsburg, N.C. JRO	U.S.	1,600	1,600	-	-	788	788	-	-	812	812	-	-
2014	SERC	1333	Town of Waynesville NC	U.S.	2,581	2,581	-	-	1,271	1,271	-	-	1,310	1,310	-	-
2014	SERC	1334	Town of Winstonsboro SC	U.S.	1,756	1,756	-	-	864	864	-	-	891	891	-	-
2014	SERC	1335	Town of Winterville NC	U.S.	1,413	1,413	-	-	695	695	-	-	717	717	-	-
2014	SERC	1597	Washington-St.Tammany Electric Cooperative, Inc.	U.S.	29,091	29,091	-	-	14,322	14,322	-	-	14,769	14,769	-	-
TOTAL SERC					27,046,236	27,046,236	-	-	13,315,250	13,315,250	-	-	13,730,986	13,730,986	-	-

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					Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total
2014	SPP	1246	American Electric Power	U.S.	1,879,449	1,879,449	-	-	482,888	482,888	-	-	1,396,561	1,396,561	-	-
2014	SPP	1435	Arkansas Electric Cooperative Corporation	U.S.	769,863	769,863	-	-	197,801	197,801	-	-	572,061	572,061	-	-
2014	SPP	1247	Board of Public Utilities (Kansas City KS)	U.S.	121,417	121,417	-	-	31,196	31,196	-	-	90,222	90,222	-	-
2014	SPP	1620	Board of Public Utilities, City of McPherson, Kansas	U.S.	47,529	47,529	-	-	12,212	12,212	-	-	35,317	35,317	-	-
2014	SPP	1647	Carthage City Water & Light	U.S.	15,962	15,962	-	-	4,101	4,101	-	-	11,861	11,861	-	-
2014	SPP	1469	Central Valley Electric Cooperative	U.S.	45,966	45,966	-	-	11,810	11,810	-	-	34,156	34,156	-	-
2014	SPP	1556	City of Bentonville	U.S.	32,593	32,593	-	-	8,374	8,374	-	-	24,219	24,219	-	-
2014	SPP	1557	City of Clarksdale, Mississippi	U.S.	8,238	8,238	-	-	2,116	2,116	-	-	6,121	6,121	-	-
2014	SPP	1558	Hope Water & Light (HWL)	U.S.	15,108	15,108	-	-	3,882	3,882	-	-	11,226	11,226	-	-
2014	SPP	1559	City of Minden	U.S.	7,816	7,816	-	-	2,008	2,008	-	-	5,808	5,808	-	-
2014	SPP		City of Chanute	U.S.	25,286	25,286	-	-	6,497	6,497	-	-	18,790	18,790	-	-
2014	SPP	1636	City of Prescott	U.S.	4,387	4,387	-	-	1,127	1,127	-	-	3,260	3,260	-	-
2014	SPP	1248	Independence Power & Light (Independence, MO)	U.S.	53,093	53,093	-	-	13,641	13,641	-	-	39,452	39,452	-	-
2014	SPP	1436	City Utilities of Springfield, MO	U.S.	160,173	160,173	-	-	41,153	41,153	-	-	119,020	119,020	-	-
2014	SPP	1249	Cleco Power LLC	U.S.	644,469	644,469	-	-	165,584	165,584	-	-	478,885	478,885	-	-
2014	SPP	1437	East Texas Electric Coop, Inc.	U.S.	20,835	20,835	-	-	5,353	5,353	-	-	15,482	15,482	-	-
2014	SPP	1250	The Empire District Electric Company	U.S.	270,541	270,541	-	-	69,510	69,510	-	-	201,031	201,031	-	-
2014	SPP	1470	Farmers' Electric Coop	U.S.	18,348	18,348	-	-	4,714	4,714	-	-	13,634	13,634	-	-
2014	SPP	1438	Golden Spread Electric Coop	U.S.	277,080	277,080	-	-	71,190	71,190	-	-	205,890	205,890	-	-
2014	SPP	1251	Grand River Dam Authority	U.S.	262,583	262,583	-	-	67,466	67,466	-	-	195,117	195,117	-	-
2014	SPP	1648	Jonesboro City Water & Light	U.S.	67,353	67,353	-	-	17,305	17,305	-	-	50,048	50,048	-	-
2014	SPP	1252	Kansas City Power & Light (KCPL)	U.S.	802,647	802,647	-	-	206,225	206,225	-	-	596,423	596,423	-	-
2014	SPP	1439	Kansas Electric Power Coop., Inc	U.S.	114,614	114,614	-	-	29,448	29,448	-	-	85,166	85,166	-	-
2014	SPP	1440	Kansas Municipal Energy Agency (KCPL)	U.S.	72,132	72,132	-	-	18,533	18,533	-	-	53,599	53,599	-	-
2014	SPP	1637	Kansas Power Pool	U.S.	46,057	46,057	-	-	11,833	11,833	-	-	34,223	34,223	-	-
2014	SPP	1649	Kennett Board of Public Works	U.S.	8,140	8,140	-	-	2,091	2,091	-	-	6,048	6,048	-	-
2014	SPP	1598	KCP&L GMOG (Greater Missouri Operations Company)	U.S.	443,115	443,115	-	-	113,850	113,850	-	-	329,265	329,265	-	-
2014	SPP	1471	Lafayette Utilities System	U.S.	104,644	104,644	-	-	26,886	26,886	-	-	77,757	77,757	-	-
2014	SPP	1472	Lea County Electric Coop	U.S.	65,197	65,197	-	-	16,751	16,751	-	-	48,446	48,446	-	-
2014	SPP	1253	Louisiana Energy & Power Authority (LEPA)	U.S.	52,034	52,034	-	-	13,369	13,369	-	-	38,665	38,665	-	-
2014	SPP	1650	Malden Board of Public Works	U.S.	2,731	2,731	-	-	702	702	-	-	2,029	2,029	-	-
2014	SPP	1441	Midwest Energy Inc.	U.S.	92,958	92,958	-	-	23,884	23,884	-	-	69,074	69,074	-	-
2014	SPP	1443	Missouri Joint Municipal Electric Utility Commission	U.S.	133,947	133,947	-	-	34,415	34,415	-	-	99,532	99,532	-	-
2014	SPP	1442	Northeast Texas Electric Cooperative, Inc.	U.S.	166,302	166,302	-	-	42,728	42,728	-	-	123,574	123,574	-	-
2014	SPP	1255	Oklahoma Gas and Electric Co.	U.S.	1,431,707	1,431,707	-	-	367,849	367,849	-	-	1,063,858	1,063,858	-	-
2014	SPP	1444	Oklahoma Municipal Power Auth	U.S.	145,136	145,136	-	-	37,290	37,290	-	-	107,846	107,846	-	-
2014	SPP	1639	OzMo Ozark Missouri, West Plains MO	U.S.	10,552	10,552	-	-	2,711	2,711	-	-	7,841	7,841	-	-
2014	SPP	1651	Paragould Light, Water & Cable	U.S.	32,424	32,424	-	-	8,331	8,331	-	-	24,093	24,093	-	-
2014	SPP	1652	Piggott Municipal Light, Water & Sewer	U.S.	2,176	2,176	-	-	559	559	-	-	1,617	1,617	-	-
2014	SPP	1653	Poplar Bluff Municipal Utilities	U.S.	20,904	20,904	-	-	5,371	5,371	-	-	15,533	15,533	-	-
2014	SPP	1561	Public Service Commission of Yazoo City of Mississippi	U.S.	5,858	5,858	-	-	1,505	1,505	-	-	4,353	4,353	-	-
2014	SPP	1473	Roosevelt County Electric Coop	U.S.	9,190	9,190	-	-	2,361	2,361	-	-	6,829	6,829	-	-
2014	SPP	1654	Sikeston Board of Municipal Utilities	U.S.	21,702	21,702	-	-	5,576	5,576	-	-	16,126	16,126	-	-
2014	SPP	1257	Southwestern Public Service Co. (SPS-XCEL)	U.S.	1,084,551	1,084,551	-	-	278,654	278,654	-	-	805,896	805,896	-	-
2014	SPP	1256	Sunflower Electric Power Cooperative	U.S.	234,408	234,408	-	-	60,227	60,227	-	-	174,182	174,182	-	-
2014	SPP	1445	Tex - La Electric Cooperative of Texas	U.S.	25,061	25,061	-	-	6,439	6,439	-	-	18,622	18,622	-	-
2014	SPP	1475	Tri County Electric Coop	U.S.	20,061	20,061	-	-	5,154	5,154	-	-	14,907	14,907	-	-
2014	SPP	1260	Westar Energy, Inc.	U.S.	1,100,709	1,100,709	-	-	282,806	282,806	-	-	817,903	817,903	-	-
2014	SPP	1259	Western Farmers Electric Cooperative	U.S.	468,264	468,264	-	-	120,311	120,311	-	-	347,952	347,952	-	-
2014	SPP	1501	West Texas Municipal Power Agency	U.S.	144,308	144,308	-	-	37,077	37,077	-	-	107,231	107,231	-	-
TOTAL SPP					11,609,618	11,609,618	-	-	2,982,867	2,982,867	-	-	8,626,751	8,626,751	-	-
2014	TRE	1019	ERCOT	U.S.	13,976,949	13,976,949	-	-	4,416,501	4,416,501	-	-	9,560,448	9,560,448	-	-
TOTAL ERCOT					13,976,949	13,976,949	-	-	4,416,501	4,416,501	-	-	9,560,448	9,560,448	-	-

2014 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2016 NERC and RE Assessments

Data Year	Regional Entity	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
2014	WECC		Alberta Electric System Operator	Canada	1,617,741	-	1,617,741	-	514,324	-	514,324	-	1,103,418	-	1,103,418	-
2014	WECC		British Columbia Hydro & Power Authority	Canada	2,777,583	-	2,777,583	-	785,417	-	785,417	-	1,992,166	-	1,992,166	-
2014	WECC		Comision Federal de Electricidad	Mexico	565,001	-	-	565,001	159,765	-	-	159,765	405,235	-	-	405,235
2014	WECC		Ajo Improvement District	U.S.	589	589	-	-	173	173	-	-	416	416	-	-
2014	WECC		Agua Irrigation District - APS	U.S.	1,722	1,722	-	-	507	507	-	-	1,215	1,215	-	-
2014	WECC		Electrical District No. 6 of Pinal County - APS	U.S.	111	111	-	-	33	33	-	-	79	79	-	-
2014	WECC		Electrical District No. 7 of Maricopa County - APS	U.S.	2,257	2,257	-	-	664	664	-	-	1,593	1,593	-	-
2014	WECC		Electrical District No. 8 of Maricopa County - APS	U.S.	14,027	14,027	-	-	4,128	4,128	-	-	9,899	9,899	-	-
2014	WECC		Harquahala Valley Power Districts - APS	U.S.	4,065	4,065	-	-	1,196	1,196	-	-	2,868	2,868	-	-
2014	WECC		Maricopa County Municipal Water Conservation Dist No. 1 - APS	U.S.	2,419	2,419	-	-	712	712	-	-	1,707	1,707	-	-
2014	WECC		McMullen Valley Water Conservation & Drainage District - APS	U.S.	3,619	3,619	-	-	1,065	1,065	-	-	2,554	2,554	-	-
2014	WECC		Roosevelt Irrigation District - APS	U.S.	1,827	1,827	-	-	538	538	-	-	1,289	1,289	-	-
2014	WECC		Tonopah Irrigation District - APS	U.S.	894	894	-	-	263	263	-	-	631	631	-	-
2014	WECC		Buckeye Water Conservation and Drainage District - APS	U.S.	888	888	-	-	261	261	-	-	627	627	-	-
2014	WECC		Arizona Public Service Company	U.S.	1,291,284	1,291,284	-	-	380,010	380,010	-	-	911,274	911,274	-	-
2014	WECC		City of Williams	U.S.	1,884	1,884	-	-	554	554	-	-	1,329	1,329	-	-
2014	WECC		Electrical Districts 1 & 3	U.S.	29,727	29,727	-	-	8,748	8,748	-	-	20,979	20,979	-	-
2014	WECC		Navajo Tribal Utility Authority	U.S.	897	897	-	-	264	264	-	-	633	633	-	-
2014	WECC		Tohono O'Odham Utility Authority	U.S.	2,802	2,802	-	-	825	825	-	-	1,978	1,978	-	-
2014	WECC		Town of Wickenburg	U.S.	1,162	1,162	-	-	342	342	-	-	820	820	-	-
2014	WECC		Avista Corporation	U.S.	420,556	420,556	-	-	123,765	123,765	-	-	296,791	296,791	-	-
2014	WECC		Big Bend Electric Cooperative, Inc.	U.S.	6,617	6,617	-	-	1,947	1,947	-	-	4,670	4,670	-	-
2014	WECC		City of Cheney	U.S.	6,578	6,578	-	-	1,936	1,936	-	-	4,642	4,642	-	-
2014	WECC		City of Chewelah	U.S.	1,033	1,033	-	-	304	304	-	-	729	729	-	-
2014	WECC		City of Plummer	U.S.	1,534	1,534	-	-	451	451	-	-	1,083	1,083	-	-
2014	WECC		Clearwater Cooperative, Inc	U.S.	7,438	7,438	-	-	2,189	2,189	-	-	5,249	5,249	-	-
2014	WECC		Consolidated Irrigation District No. 19	U.S.	309	309	-	-	91	91	-	-	218	218	-	-
2014	WECC		Idaho County Light and Power Cooperative Association, Inc.	U.S.	2,566	2,566	-	-	755	755	-	-	1,811	1,811	-	-
2014	WECC		Inland Power and Light Company	U.S.	21,177	21,177	-	-	6,232	6,232	-	-	14,944	14,944	-	-
2014	WECC		Kaiser Aluminum Fabricated Products LLC	U.S.	13,925	13,925	-	-	4,098	4,098	-	-	9,827	9,827	-	-
2014	WECC		Kootenai Electric Cooperative, Inc.	U.S.	21,108	21,108	-	-	6,212	6,212	-	-	14,896	14,896	-	-
2014	WECC		Modern Electric Water Company	U.S.	10,319	10,319	-	-	3,037	3,037	-	-	7,282	7,282	-	-
2014	WECC		Northern Lights, Inc.	U.S.	1,588	1,588	-	-	467	467	-	-	1,120	1,120	-	-
2014	WECC		Pend Oreille County PUD No. 1	U.S.	40,531	40,531	-	-	11,928	11,928	-	-	28,603	28,603	-	-
2014	WECC		PUD No. 1 of Asotin County	U.S.	226	226	-	-	66	66	-	-	159	159	-	-
2014	WECC		PUD No. 2 of Grant County	U.S.	4,270	4,270	-	-	1,257	1,257	-	-	3,013	3,013	-	-
2014	WECC		U.S. BOR East Greenacres (Rathdrum)	U.S.	139	139	-	-	41	41	-	-	98	98	-	-
2014	WECC		U.S. Bor Spokane Indian Development	U.S.	139	139	-	-	41	41	-	-	98	98	-	-
2014	WECC		US Air Force Base, Fairchild	U.S.	2,163	2,163	-	-	637	637	-	-	1,527	1,527	-	-
2014	WECC		City of Redding	U.S.	34,933	34,933	-	-	10,280	10,280	-	-	24,652	24,652	-	-
2014	WECC		City of Roseville	U.S.	54,735	54,735	-	-	16,108	16,108	-	-	38,627	38,627	-	-
2014	WECC		Modesto Irrigation District	U.S.	113,670	113,670	-	-	33,452	33,452	-	-	80,218	80,218	-	-
2014	WECC		Sacramento Municipal Utility District	U.S.	495,194	495,194	-	-	145,730	145,730	-	-	349,464	349,464	-	-
2014	WECC		Western Area Power Administration - Sierra Nevada Region	U.S.	58,129	58,129	-	-	17,107	17,107	-	-	41,022	41,022	-	-
2014	WECC		Bonneville Power Administration	U.S.	2,398,344	2,398,344	-	-	705,806	705,806	-	-	1,692,538	1,692,538	-	-
2014	WECC		California Independent System Operator	U.S.	10,172,357	10,172,357	-	-	2,993,611	2,993,611	-	-	7,178,746	7,178,746	-	-
2014	WECC		El Paso Electric Company	U.S.	361,942	361,942	-	-	106,515	106,515	-	-	255,426	255,426	-	-
2014	WECC		Bonneville Power Administration	U.S.	78,143	78,143	-	-	22,997	22,997	-	-	55,146	55,146	-	-
2014	WECC		Idaho Power Company	U.S.	682,499	682,499	-	-	200,852	200,852	-	-	481,647	481,647	-	-
2014	WECC		PacifiCorp	U.S.	90	90	-	-	27	27	-	-	64	64	-	-
2014	WECC		Imperial Irrigation District	U.S.	162,701	162,701	-	-	47,881	47,881	-	-	114,820	114,820	-	-
2014	WECC		Los Angeles Department of Water and Power	U.S.	1,305,940	1,305,940	-	-	384,323	384,323	-	-	921,616	921,616	-	-
2014	WECC		City of Henderson	U.S.	1,885	1,885	-	-	555	555	-	-	1,331	1,331	-	-
2014	WECC		City of Las Vegas	U.S.	1,910	1,910	-	-	562	562	-	-	1,348	1,348	-	-
2014	WECC		City of North Las Vegas	U.S.	850	850	-	-	250	250	-	-	600	600	-	-
2014	WECC		Clark County Water Resources	U.S.	3,452	3,452	-	-	1,016	1,016	-	-	2,436	2,436	-	-
2014	WECC		Colorado River Commission of Nevada	U.S.	40,560	40,560	-	-	11,936	11,936	-	-	28,624	28,624	-	-

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					Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total
2014	WECC		Las Vegas Valley Water District	U.S.	4,206	4,206	-	-	1,238	1,238	-	-	2,969	2,969	-	-
2014	WECC		Nevada Power Company dba NV Energy	U.S.	1,101,774	1,101,774	-	-	324,240	324,240	-	-	777,534	777,534	-	-
2014	WECC		Overton Power District No. 5	U.S.	16,649	16,649	-	-	4,900	4,900	-	-	11,750	11,750	-	-
2014	WECC		Southern Nevada Water Authority	U.S.	5,258	5,258	-	-	1,547	1,547	-	-	3,711	3,711	-	-
2014	WECC		Bonneville Power Administration	U.S.	34,331	34,331	-	-	10,103	10,103	-	-	24,228	24,228	-	-
2014	WECC		Central Montana Electric Power Cooperative	U.S.	18,371	18,371	-	-	5,406	5,406	-	-	12,965	12,965	-	-
2014	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC	U.S.	407,982	407,982	-	-	120,065	120,065	-	-	287,917	287,917	-	-
2014	WECC		Southern Montana Electric Generation & Transmission	U.S.	17,205	17,205	-	-	5,063	5,063	-	-	12,142	12,142	-	-
2014	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	344	344	-	-	101	101	-	-	243	243	-	-
2014	WECC		PacifiCorp	U.S.	2,195,871	2,195,871	-	-	646,220	646,220	-	-	1,549,651	1,549,651	-	-
2014	WECC		PacifiCorp West (PACW)	U.S.	920,059	920,059	-	-	270,763	270,763	-	-	649,296	649,296	-	-
2014	WECC		Bonneville Power Administration	U.S.	388	388	-	-	114	114	-	-	274	274	-	-
2014	WECC		Canby Public Utility Board	U.S.	7,267	7,267	-	-	2,139	2,139	-	-	5,129	5,129	-	-
2014	WECC		Columbia River PUD	U.S.	13,371	13,371	-	-	3,935	3,935	-	-	9,436	9,436	-	-
2014	WECC		Noble Americas Energy Solutions, LLC	U.S.	75,655	75,655	-	-	22,264	22,264	-	-	53,391	53,391	-	-
2014	WECC		PacifiCorp	U.S.	97	97	-	-	29	29	-	-	69	69	-	-
2014	WECC		Portland General Electric Company	U.S.	843,713	843,713	-	-	248,295	248,295	-	-	595,417	595,417	-	-
2014	WECC		West Oregon Electric Cooperative, Inc.	U.S.	514	514	-	-	151	151	-	-	363	363	-	-
2014	WECC		Arkansas River Power Authority (ARPA)	U.S.	11,501	11,501	-	-	3,385	3,385	-	-	8,116	8,116	-	-
2014	WECC		Black Hills Colorado Electric	U.S.	86,134	86,134	-	-	25,348	25,348	-	-	60,786	60,786	-	-
2014	WECC		Burlington	U.S.	3,060	3,060	-	-	901	901	-	-	2,160	2,160	-	-
2014	WECC		Colorado Springs Utilities	U.S.	1,305	1,305	-	-	384	384	-	-	921	921	-	-
2014	WECC		Grand Valley Power	U.S.	10,070	10,070	-	-	2,964	2,964	-	-	7,107	7,107	-	-
2014	WECC		Holy Cross Energy	U.S.	49,390	49,390	-	-	14,535	14,535	-	-	34,855	34,855	-	-
2014	WECC		Intermountain Rural Electric Association	U.S.	93,938	93,938	-	-	27,645	27,645	-	-	66,293	66,293	-	-
2014	WECC		Municipal Energy Agency of Nebraska	U.S.	7,887	7,887	-	-	2,321	2,321	-	-	5,566	5,566	-	-
2014	WECC		Platte River Power Authority	U.S.	140,683	140,683	-	-	41,401	41,401	-	-	99,282	99,282	-	-
2014	WECC		Public Service Company of Colorado (Xcel)	U.S.	1,222,578	1,222,578	-	-	359,791	359,791	-	-	862,787	862,787	-	-
2014	WECC		Raton Public Service	U.S.	2,482	2,482	-	-	730	730	-	-	1,751	1,751	-	-
2014	WECC		Town of Center	U.S.	656	656	-	-	193	193	-	-	463	463	-	-
2014	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability	U.S.	103,120	103,120	-	-	30,347	30,347	-	-	72,773	72,773	-	-
2014	WECC		Western Area Power - Loveland, CO	U.S.	7,384	7,384	-	-	2,173	2,173	-	-	5,211	5,211	-	-
2014	WECC		Yampa Valley Electric Association	U.S.	24,545	24,545	-	-	7,223	7,223	-	-	17,322	17,322	-	-
2014	WECC		City of Aztec Electric Dept	U.S.	1,727	1,727	-	-	508	508	-	-	1,219	1,219	-	-
2014	WECC		City of Gallup	U.S.	8,114	8,114	-	-	2,388	2,388	-	-	5,726	5,726	-	-
2014	WECC		Jicarilla Apache Nation Power Authority	U.S.	632	632	-	-	186	186	-	-	446	446	-	-
2014	WECC		Navajo Tribal Utility Authority	U.S.	11,687	11,687	-	-	3,439	3,439	-	-	8,247	8,247	-	-
2014	WECC		Navopache Electric Cooperative, Inc.	U.S.	15,349	15,349	-	-	4,517	4,517	-	-	10,832	10,832	-	-
2014	WECC		Public Service Company of New Mexico	U.S.	467,675	467,675	-	-	137,632	137,632	-	-	330,044	330,044	-	-
2014	WECC		The Incorporated County of Los Alamos	U.S.	15,362	15,362	-	-	4,521	4,521	-	-	10,841	10,841	-	-
2014	WECC		Tri-State Generation & Transmission Association, Inc.	U.S.	106,550	106,550	-	-	31,356	31,356	-	-	75,193	75,193	-	-
2014	WECC		US Dept of Energy - Kirtland AFB	U.S.	17,688	17,688	-	-	5,205	5,205	-	-	12,482	12,482	-	-
2014	WECC		Public Utility District No. 1 of Chelan County	U.S.	172,874	172,874	-	-	50,875	50,875	-	-	121,999	121,999	-	-
2014	WECC		PUD No. 1 of Douglas County	U.S.	34,773	34,773	-	-	10,233	10,233	-	-	24,540	24,540	-	-
2014	WECC		Okanogan PUD	U.S.	28,422	28,422	-	-	8,364	8,364	-	-	20,058	20,058	-	-
2014	WECC		BPA - Douglas Pumping	U.S.	1,149	1,149	-	-	338	338	-	-	811	811	-	-
2014	WECC		BPA - Okanogan Pumping	U.S.	1,373	1,373	-	-	404	404	-	-	969	969	-	-
2014	WECC		BPA - Okanogan REA	U.S.	2,619	2,619	-	-	771	771	-	-	1,848	1,848	-	-
2014	WECC		BPA - USBR Load	U.S.	6,064	6,064	-	-	1,785	1,785	-	-	4,279	4,279	-	-
2014	WECC		BPA - Big Bend/Schrag Load	U.S.	1,877	1,877	-	-	553	553	-	-	1,325	1,325	-	-
2014	WECC		BPA - Kittitas Load	U.S.	313	313	-	-	92	92	-	-	221	221	-	-
2014	WECC		Douglas Palisades / PUD No. 1 of DC	U.S.	887	887	-	-	261	261	-	-	626	626	-	-
2014	WECC		PUD No. 2 of Grant County	U.S.	184,535	184,535	-	-	54,307	54,307	-	-	130,229	130,229	-	-
2014	WECC		City of Blaine	U.S.	3,458	3,458	-	-	1,018	1,018	-	-	2,440	2,440	-	-
2014	WECC		City of Sumas	U.S.	1,366	1,366	-	-	402	402	-	-	964	964	-	-
2014	WECC		Port of Seattle - Seattle-Tacoma International Airport	U.S.	6,266	6,266	-	-	1,844	1,844	-	-	4,422	4,422	-	-
2014	WECC		PUD No. 1 of Kittitas County	U.S.	726	726	-	-	214	214	-	-	513	513	-	-
2014	WECC		PUD No. 1 of Whatcom County	U.S.	235	235	-	-	69	69	-	-	166	166	-	-

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2014	WECC		Puget Sound Energy, Inc.	U.S.	1,052,453	1,052,453	-	-	309,725	309,725	-	-	742,728	742,728	-	-
2014	WECC		Tanner Electric Cooperative	U.S.	4,281	4,281	-	-	1,260	1,260	-	-	3,021	3,021	-	-
2014	WECC		Salt River Project	U.S.	1,281,948	1,281,948	-	-	377,263	377,263	-	-	904,685	904,685	-	-
2014	WECC		Seattle City Light	U.S.	435,342	435,342	-	-	128,116	128,116	-	-	307,226	307,226	-	-
2014	WECC		Barrick Goldstrike Mines Inc.	U.S.	49,216	49,216	-	-	14,484	14,484	-	-	34,732	34,732	-	-
2014	WECC		City of Fallon	U.S.	5,645	5,645	-	-	1,661	1,661	-	-	3,984	3,984	-	-
2014	WECC		Harney Electric Cooperative, Inc.	U.S.	5,425	5,425	-	-	1,597	1,597	-	-	3,829	3,829	-	-
2014	WECC		Mt. Wheeler Power	U.S.	23,845	23,845	-	-	7,017	7,017	-	-	16,828	16,828	-	-
2014	WECC		Sierra Pacific Power Company dba NV Energy	U.S.	403,571	403,571	-	-	118,766	118,766	-	-	284,805	284,805	-	-
2014	WECC		Truckee Donner Public Utility District	U.S.	6,389	6,389	-	-	1,880	1,880	-	-	4,509	4,509	-	-
2014	WECC		Wells Rural Electric Cooperative	U.S.	29,387	29,387	-	-	8,648	8,648	-	-	20,739	20,739	-	-
2014	WECC		City of Tacoma DBA Tacoma Power	U.S.	216,446	216,446	-	-	63,698	63,698	-	-	152,749	152,749	-	-
2014	WECC		Tucson Electric Power Company	U.S.	671,159	671,159	-	-	197,515	197,515	-	-	473,645	473,645	-	-
2014	WECC		Merced Irrigation District	U.S.	21,029	21,029	-	-	6,189	6,189	-	-	14,840	14,840	-	-
2014	WECC		Turlock Irrigation District	U.S.	94,479	94,479	-	-	27,804	27,804	-	-	66,675	66,675	-	-
2014	WECC		Basin Electric Power Cooperative	U.S.	133,998	133,998	-	-	39,434	39,434	-	-	94,564	94,564	-	-
2014	WECC		Black Hills Power/Cheyenne Light Fuel & Power	U.S.	151,182	151,182	-	-	44,491	44,491	-	-	106,691	106,691	-	-
2014	WECC		Black Hills State University South Dakota	U.S.	850	850	-	-	250	250	-	-	600	600	-	-
2014	WECC		City of Page	U.S.	3,835	3,835	-	-	1,129	1,129	-	-	2,706	2,706	-	-
2014	WECC		Colorado Springs Utilities	U.S.	198,264	198,264	-	-	58,347	58,347	-	-	139,917	139,917	-	-
2014	WECC		Deseret Generation & Transmission Cooperative	U.S.	4,972	4,972	-	-	1,463	1,463	-	-	3,509	3,509	-	-
2014	WECC		City of Farmington	U.S.	48,321	48,321	-	-	14,220	14,220	-	-	34,101	34,101	-	-
2014	WECC		Municipal Energy Agency of Nebraska	U.S.	29,634	29,634	-	-	8,721	8,721	-	-	20,913	20,913	-	-
2014	WECC		Navajo Agricultural Products Industry (NAPI)	U.S.	387	387	-	-	114	114	-	-	273	273	-	-
2014	WECC		Nebraska Public Power Marketing	U.S.	160	160	-	-	47	47	-	-	113	113	-	-
2014	WECC		PacifiCorp	U.S.	5,257	5,257	-	-	1,547	1,547	-	-	3,710	3,710	-	-
2014	WECC		Public Service Company of Colorado (Xcel)	U.S.	1,616	1,616	-	-	476	476	-	-	1,140	1,140	-	-
2014	WECC		Town of Fredonia	U.S.	479	479	-	-	141	141	-	-	338	338	-	-
2014	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability	U.S.	318,392	318,392	-	-	93,699	93,699	-	-	224,693	224,693	-	-
2014	WECC		Western Area Power - Loveland, CO	U.S.	101,521	101,521	-	-	29,876	29,876	-	-	71,644	71,644	-	-
2014	WECC		Western Area Power Administration - CRSP	U.S.	76,591	76,591	-	-	22,540	22,540	-	-	54,051	54,051	-	-
2014	WECC		Wyoming Municipal Power Agency	U.S.	12,364	12,364	-	-	3,639	3,639	-	-	8,725	8,725	-	-
2014	WECC		Basin Electric Power Cooperative	U.S.	2,533	2,533	-	-	745	745	-	-	1,787	1,787	-	-
2014	WECC		Bonneville Power Administration	U.S.	490	490	-	-	144	144	-	-	345	345	-	-
2014	WECC		Central Montana Electric Power Cooperative	U.S.	2,774	2,774	-	-	816	816	-	-	1,958	1,958	-	-
2014	WECC		Montana-Dakota Utilities Co.	U.S.	1,034	1,034	-	-	304	304	-	-	729	729	-	-
2014	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC	U.S.	10,654	10,654	-	-	3,135	3,135	-	-	7,518	7,518	-	-
2014	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	18,214	18,214	-	-	5,360	5,360	-	-	12,854	12,854	-	-
2014	WECC		Aha Macav Power Service	U.S.	1,153	1,153	-	-	339	339	-	-	814	814	-	-
2014	WECC		Bureau of Reclamation (Desalter) - c/o DSW EMMO	U.S.	26	26	-	-	8	8	-	-	19	19	-	-
2014	WECC		Bureau of Reclamation (Wellfield) - c/o DSW EMMO	U.S.	300	300	-	-	88	88	-	-	212	212	-	-
2014	WECC		Central Arizona Water Conservation District	U.S.	114,284	114,284	-	-	33,632	33,632	-	-	80,651	80,651	-	-
2014	WECC		City of Mesa	U.S.	11,058	11,058	-	-	3,254	3,254	-	-	7,804	7,804	-	-
2014	WECC		City of Needles	U.S.	1,271	1,271	-	-	374	374	-	-	897	897	-	-
2014	WECC		Colorado River Agency-Bureau of Indian Affairs	U.S.	568	568	-	-	167	167	-	-	401	401	-	-
2014	WECC		Electrical District #2	U.S.	8,402	8,402	-	-	2,473	2,473	-	-	5,930	5,930	-	-
2014	WECC		Electrical District #2 - Coolidge Generating Station	U.S.	411	411	-	-	121	121	-	-	290	290	-	-
2014	WECC		Silver State Energy - c/o Colorado River Commission of Nevada	U.S.	29,369	29,369	-	-	8,643	8,643	-	-	20,726	20,726	-	-
2014	WECC		Southwest Transmission Cooperative, Inc.	U.S.	83,603	83,603	-	-	24,603	24,603	-	-	59,000	59,000	-	-
2014	WECC		U.S. Army Yuma Proving Ground	U.S.	993	993	-	-	292	292	-	-	701	701	-	-
2014	WECC		Wellton-Mohawk Irrigation & Drainage District	U.S.	127	127	-	-	37	37	-	-	90	90	-	-
2014	WECC		Western Area Power Administration-Desert Southwest Region	U.S.	182,248	182,248	-	-	53,633	53,633	-	-	128,614	128,614	-	-
TOTAL WECC					37,227,510	32,267,186	4,395,324	565,001	10,955,378	9,495,872	1,299,741	159,765	26,272,132	22,771,314	3,095,583	405,235
TOTAL ERO					166,508,186	150,501,295	15,441,890	565,001	57,081,445	51,785,828	5,135,852	159,765	109,426,741	98,715,468	10,306,038	405,235

Data Year	Regional Entity	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	
<b>Summary by Regional Entity</b>																	
2014	FRCC				9,536,062	9,536,062	-	-	2,907,605	2,907,605	-	-	6,628,457	6,628,457	-	-	
2014	MRO				14,645,605	12,191,099	2,454,506	-	3,754,043	3,120,012	634,031	-	10,891,562	9,071,087	1,820,475	-	
2014	NPCC				21,268,634	12,676,574	8,592,060	-	6,919,438	3,717,358	3,202,080	-	14,349,196	8,959,216	5,389,980	-	
2014	RF				31,197,572	31,197,572	-	-	11,830,363	11,830,363	-	-	19,367,209	19,367,209	-	-	
2014	SERC				27,046,236	27,046,236	-	-	13,315,250	13,315,250	-	-	13,730,986	13,730,986	-	-	
2014	SPP				11,609,618	11,609,618	-	-	2,982,867	2,982,867	-	-	8,626,751	8,626,751	-	-	
2014	TRE				13,976,949	13,976,949	-	-	4,416,501	4,416,501	-	-	9,560,448	9,560,448	-	-	
2014	WECC				37,227,510	32,267,186	4,395,324	565,001	10,955,378	9,495,872	1,299,741	159,765	26,272,132	22,771,314	3,095,583	405,235	
<b>Total</b>					<b>166,508,186</b>	<b>150,501,295</b>	<b>15,441,890</b>	<b>565,001</b>	<b>57,081,445</b>	<b>51,785,828</b>	<b>5,135,852</b>	<b>159,765</b>	<b>109,426,741</b>	<b>98,715,468</b>	<b>10,306,038</b>	<b>405,235</b>	

2014 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2016 NERC and RE Assessments

Data Year	Regional Entity	ID	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	Mexico Total	
2014	FRCC	1074	Alachua, City of	U.S.	1,589	1,589	-	-	1,583	1,583	-	-	(44)	(44)	49	49	-	-	
2014	FRCC	1075	Bartow, City of	U.S.	3,727	3,727	-	-	3,715	3,715	-	-	(104)	(104)	116	116	-	-	
2014	FRCC	1076	Chattahoochee, City of	U.S.	494	494	-	-	492	492	-	-	(14)	(14)	15	15	-	-	
2014	FRCC	1077	Florida Keys Electric Cooperative Assn	U.S.	9,577	9,577	-	-	9,545	9,545	-	-	(266)	(266)	298	298	-	-	
2014	FRCC	1078	Florida Power & Light Co.	U.S.	1,428,375	1,428,375	-	-	1,423,636	1,423,636	-	-	(39,691)	(39,691)	44,429	44,429	-	-	
2014	FRCC	1079	Florida Public Utilities Company	U.S.	4,685	4,685	-	-	4,669	4,669	-	-	(130)	(130)	146	146	-	-	
2014	FRCC	1080	Gainesville Regional Utilities	U.S.	22,704	22,704	-	-	22,629	22,629	-	-	(631)	(631)	706	706	-	-	
2014	FRCC	1081	Homestead, City of	U.S.	6,782	6,782	-	-	6,759	6,759	-	-	(188)	(188)	211	211	-	-	
2014	FRCC	1082	JEA	U.S.	159,406	159,406	-	-	158,877	158,877	-	-	(4,429)	(4,429)	4,958	4,958	-	-	
2014	FRCC	1083	Lakeland Electric	U.S.	38,903	38,903	-	-	38,774	38,774	-	-	(1,081)	(1,081)	1,210	1,210	-	-	
2014	FRCC	1626	Lee County Electric Cooperative, Inc	U.S.	49,586	49,586	-	-	49,421	49,421	-	-	(1,378)	(1,378)	1,542	1,542	-	-	
2014	FRCC	1661	City of Lake Worth	U.S.	5,798	5,798	-	-	5,779	5,779	-	-	(161)	(161)	180	180	-	-	
2014	FRCC	1084	Mount Dora, City of	U.S.	1,173	1,173	-	-	1,169	1,169	-	-	(33)	(33)	36	36	-	-	
2014	FRCC	1085	New Smyrna Beach, Utilities Commission of	U.S.	5,293	5,293	-	-	5,276	5,276	-	-	(147)	(147)	165	165	-	-	
2014	FRCC	1086	Orlando Utilities Commission	U.S.	76,137	76,137	-	-	75,885	75,885	-	-	(2,116)	(2,116)	2,368	2,368	-	-	
2014	FRCC	1087	Duke Energy Florida	U.S.	514,317	514,317	-	-	512,610	512,610	-	-	(14,292)	(14,292)	15,998	15,998	-	-	
2014	FRCC	1088	Quincy, City of	U.S.	1,756	1,756	-	-	1,750	1,750	-	-	(49)	(49)	55	55	-	-	
2014	FRCC	1089	Reedy Creek Improvement District	U.S.	15,440	15,440	-	-	15,388	15,388	-	-	(429)	(429)	480	480	-	-	
2014	FRCC	1090	St. Cloud, City of (OUC)	U.S.	8,270	8,270	-	-	8,242	8,242	-	-	(230)	(230)	257	257	-	-	
2014	FRCC	1091	Tallahassee, City of	U.S.	35,603	35,603	-	-	35,485	35,485	-	-	(989)	(989)	1,107	1,107	-	-	
2014	FRCC	1092	Tampa Electric Company	U.S.	249,973	249,973	-	-	249,144	249,144	-	-	(6,946)	(6,946)	7,775	7,775	-	-	
2014	FRCC	1603	City of Vero Beach	U.S.	9,590	9,590	-	-	9,558	9,558	-	-	(266)	(266)	298	298	-	-	
2014	FRCC	1093	Wauchula, City of	U.S.	824	824	-	-	822	822	-	-	(23)	(23)	26	26	-	-	
2014	FRCC	1094	Williston, City of	U.S.	425	425	-	-	423	423	-	-	(12)	(12)	13	13	-	-	
2014	FRCC	1095	Winter Park, City of	U.S.	5,661	5,661	-	-	5,643	5,643	-	-	(157)	(157)	176	176	-	-	
2014	FRCC	1072	Florida Municipal Power Agency	U.S.	72,623	72,623	-	-	72,382	72,382	-	-	(2,018)	(2,018)	2,259	2,259	-	-	
2014	FRCC	1073	Seminole Electric Cooperative	U.S.	178,893	178,893	-	-	178,300	178,300	-	-	(4,971)	(4,971)	5,564	5,564	-	-	
TOTAL FRCC					2,907,605	2,907,605	-	-	2,897,959	2,897,959	-	-	(80,795)	(80,795)	90,440	90,440	-	-	
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2014	MRO	1199	Basin Electric Power Cooperative	U.S.	208,626	208,626	-	-	207,934	207,934	-	-	(5,797)	(5,797)	6,489	6,489	-	-	
2014	MRO	1201	Central Iowa Power Cooperative (CIPCO)	U.S.	36,414	36,414	-	-	36,294	36,294	-	-	(1,012)	(1,012)	1,133	1,133	-	-	
2014	MRO	1204	Corn Belt Power Cooperative	U.S.	24,567	24,567	-	-	24,486	24,486	-	-	(683)	(683)	764	764	-	-	
2014	MRO	1207	Dairyland Power Cooperative	U.S.	72,300	72,300	-	-	72,060	72,060	-	-	(2,009)	(2,009)	2,249	2,249	-	-	
2014	MRO	1210	Great River Energy	U.S.	181,916	181,916	-	-	181,312	181,312	-	-	(5,055)	(5,055)	5,658	5,658	-	-	
2014	MRO	1222	Minnkota Power Cooperative, Inc.	U.S.	58,350	58,350	-	-	58,157	58,157	-	-	(1,621)	(1,621)	1,815	1,815	-	-	
2014	MRO	1230	Nebraska Public Power District	U.S.	175,637	175,637	-	-	175,055	175,055	-	-	(4,881)	(4,881)	5,463	5,463	-	-	
2014	MRO	1232	Omaha Public Power District	U.S.	145,662	145,662	-	-	145,179	145,179	-	-	(4,048)	(4,048)	4,531	4,531	-	-	
2014	MRO	1237	Southern Montana Generation and Transmission	U.S.	113	113	-	-	113	113	-	-	(3)	(3)	4	4	-	-	
2014	MRO	1240	Western Area Power Administration (UM)	U.S.	111,198	111,198	-	-	110,829	110,829	-	-	(3,090)	(3,090)	3,459	3,459	-	-	
2014	MRO	1239	Western Area Power Administration (LM)	U.S.	1,705	1,705	-	-	1,699	1,699	-	-	(47)	(47)	53	53	-	-	
2014	MRO	1217	Manitoba Hydro	CAN	323,653	-	323,653	-	313,858	-	313,858	-	-	-	-	9,795	-	9,795	-
2014	MRO	1235	SaskPower	CAN	310,378	-	310,378	-	300,985	-	300,985	-	-	-	-	9,393	-	9,393	-
2014	MRO	1195	Alliant Energy (Alliant East - WPL & Alliant West IPL)	U.S.	380,229	380,229	-	-	378,968	378,968	-	-	(10,566)	(10,566)	11,827	11,827	-	-	
2014	MRO	1216	Madison, Gas and Electric	U.S.	44,580	44,580	-	-	44,433	44,433	-	-	(1,239)	(1,239)	1,387	1,387	-	-	
2014	MRO	1220	MidAmerican Energy Company	U.S.	317,414	317,414	-	-	316,361	316,361	-	-	(8,820)	(8,820)	9,873	9,873	-	-	
2014	MRO	1221	Minnesota Power	U.S.	172,322	172,322	-	-	171,751	171,751	-	-	(4,788)	(4,788)	5,360	5,360	-	-	
2014	MRO	1226	Montana-Dakota Utilities Co.	U.S.	42,070	42,070	-	-	41,931	41,931	-	-	(1,169)	(1,169)	1,309	1,309	-	-	
2014	MRO	1231	NorthWestern Energy	U.S.	20,447	20,447	-	-	20,379	20,379	-	-	(568)	(568)	636	636	-	-	
2014	MRO	1233	Otter Tail Power Company	U.S.	61,871	61,871	-	-	61,666	61,666	-	-	(1,719)	(1,719)	1,924	1,924	-	-	
2014	MRO	1664	Wisconsin Public Service (WPS)	U.S.	158,975	158,975	-	-	158,447	158,447	-	-	(4,418)	(4,418)	4,945	4,945	-	-	
2014	MRO	1665	Upper Peninsula Power Company (UPPCO)	U.S.	9,622	9,622	-	-	9,590	9,590	-	-	(267)	(267)	299	299	-	-	
2014	MRO	1244	Xcel Energy Company (NSP)	U.S.	585,156	585,156	-	-	583,215	583,215	-	-	(16,260)	(16,260)	18,201	18,201	-	-	
2014	MRO	1196	Ames Municipal Electric System	U.S.	9,938	9,938	-	-	9,905	9,905	-	-	(276)	(276)	309	309	-	-	
2014	MRO	1604	Atlantic Municipal Utilities	U.S.	985	985	-	-	982	982	-	-	(27)	(27)	31	31	-	-	
2014	MRO	1476	Badger Power Marketing Authority of Wisconsin, Inc.	U.S.	5,271	5,271	-	-	5,254	5,254	-	-	(146)	(146)	164	164	-	-	
2014	MRO	1200	Cedar Falls Municipal Utilities	U.S.	6,884	6,884	-	-	6,861	6,861	-	-	(191)	(191)	214	214	-	-	
2014	MRO	1477	Central Minnesota Municipal Power Agency (CMMPPA)	U.S.	5,994	5,994	-	-	5,974	5,974	-	-	(167)	(167)	186	186	-	-	
2014	MRO	1203	City of Escanaba	U.S.	1,835	1,835	-	-	1,829	1,829	-	-	(51)	(51)	57	57	-	-	
2014	MRO	1205	Falls City Water & Light Department	U.S.	743	743	-	-	741	741	-	-	(21)	(21)	23	23	-	-	
2014	MRO	1206	Fremont Department of Utilities	U.S.	5,669	5,669	-	-	5,650	5,650	-	-	(158)	(158)	176	176	-	-	
2014	MRO	1208	Geneseo Municipal Utilities	U.S.	849	849	-	-	846	846	-	-	(24)	(24)	26	26	-	-	
2014	MRO	1209	Grand Island Utilities Department	U.S.	9,823	9,823	-	-	9,790	9,790	-	-	(273)	(273)	306	306	-	-	
2014	MRO	1606	Harlan Municipal Utilities	U.S.	326	326	-	-	325	325	-	-	(9)	(9)	10	10	-	-	
2014	MRO	1211	Hastings Utilities	U.S.	5,512	5,512	-	-	5,494	5,494	-	-	(153)	(153)	171	171	-	-	
2014	MRO	1212	Heartland Consumers Power District	U.S.	11,258	11,258	-	-	11,220	11,220	-	-	(313)	(313)	350	350	-	-	



2014 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2016 NERC and RE Assessments

Data Year	Regional Entity	ID	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	Mexico Total	
2014	MRO	1213	Hutchinson Utilities Commission	U.S.	3,832	3,832	-	-	3,820	3,820	-	-	(106)	(106)	119	119	-	-	
2014	MRO	1215	Lincoln Electric System	U.S.	42,196	42,196	-	-	42,056	42,056	-	-	(1,173)	(1,173)	1,313	1,313	-	-	
2014	MRO	1218	Manitowoc Public Utilities	U.S.	7,005	7,005	-	-	6,982	6,982	-	-	(195)	(195)	218	218	-	-	
2014	MRO	1223	Missouri River Energy Services	U.S.	31,600	31,600	-	-	31,495	31,495	-	-	(878)	(878)	983	983	-	-	
2014	MRO	1224	MN Municipal Power Agency (MMPA)	U.S.	19,826	19,826	-	-	19,760	19,760	-	-	(551)	(551)	617	617	-	-	
2014	MRO	1607	Montezuma Municipal Light & Power	U.S.	395	395	-	-	393	393	-	-	(11)	(11)	12	12	-	-	
2014	MRO	1227	Municipal Energy Agency of Nebraska	U.S.	14,860	14,860	-	-	14,811	14,811	-	-	(413)	(413)	462	462	-	-	
2014	MRO	1228	Muscatine Power and Water	U.S.	11,316	11,316	-	-	11,279	11,279	-	-	(314)	(314)	352	352	-	-	
2014	MRO	1229	Nebraska City Utilities	U.S.	2,178	2,178	-	-	2,171	2,171	-	-	(61)	(61)	68	68	-	-	
2014	MRO	1234	Rochester Public Utilities	U.S.	21	21	-	-	20	20	-	-	(1)	(1)	1	1	-	-	
2014	MRO	1236	Southern Minnesota Municipal Power Agency	U.S.	38,034	38,034	-	-	37,908	37,908	-	-	(1,057)	(1,057)	1,183	1,183	-	-	
2014	MRO	1241	Willmar Municipal Utilities	U.S.	3,386	3,386	-	-	3,375	3,375	-	-	(94)	(94)	105	105	-	-	
2014	MRO	1242	Wisconsin Public Power, Inc. (East and West regions)	U.S.	71,099	71,099	-	-	70,863	70,863	-	-	(1,976)	(1,976)	2,212	2,212	-	-	
TOTAL MRO					3,754,043	3,120,012	634,031	-	3,724,505	3,109,662	614,843	-	(86,697)	(86,697)	116,235	97,047	19,188	-	-
2014	NPCC	1336	New England	U.S.	1,645,888	1,645,888	-	-	1,640,428	1,640,428	-	-	(45,735)	(45,735)	51,195	51,195	-	-	
2014	NPCC	1339	New York	U.S.	2,071,470	2,071,470	-	-	2,064,598	2,064,598	-	-	(57,561)	(57,561)	64,432	64,432	-	-	
2014	NPCC	1337	Ontario	Canada	1,173,912	-	1,173,912	-	1,803,329	-	1,803,329	-	-	-	(629,417)	-	(629,417)	-	
2014	NPCC	1341	Quebec	Canada	1,765,517	-	1,765,517	-	2,441,919	-	2,441,919	-	-	-	(676,402)	-	(676,402)	-	
2014	NPCC	1663	New Brunswick	Canada	117,079	-	117,079	-	179,980	-	179,980	-	-	-	(62,901)	-	(62,901)	-	
2014	NPCC	1340	Nova Scotia	Canada	145,572	-	145,572	-	141,166	-	141,166	-	-	-	4,406	-	4,406	-	
TOTAL NPCC					6,919,438	3,717,358	3,202,080	-	8,271,421	3,705,026	4,566,395	-	(103,296)	(103,296)	(1,248,687)	115,627	(1,364,314)	-	-
2014	RF	1102	Cannelton Utilities	U.S.	215	215	-	-	214	214	-	-	(6)	(6)	7	7	-	-	
2014	RF	1106	City of Crosswell	U.S.	517	517	-	-	515	515	-	-	(14)	(14)	16	16	-	-	
2014	RF	1490	City of Lansing	U.S.	28,804	28,804	-	-	28,708	28,708	-	-	(800)	(800)	896	896	-	-	
2014	RF	1120	Cloverland Electric Cooperative	U.S.	11,099	11,099	-	-	11,062	11,062	-	-	(308)	(308)	345	345	-	-	
2014	RF	1122	CMS ERM Michigan LLC	U.S.	1,551	1,551	-	-	1,546	1,546	-	-	(43)	(43)	48	48	-	-	
2014	RF	1124	Constellation New Energy (MECS-CONS)	U.S.	11,886	11,886	-	-	11,847	11,847	-	-	(330)	(330)	370	370	-	-	
2014	RF	1123	Constellation New Energy (MECS-DET)	U.S.	12,926	12,926	-	-	12,884	12,884	-	-	(359)	(359)	402	402	-	-	
2014	RF	1126	Consumers Energy Company	U.S.	430,369	430,369	-	-	428,942	428,942	-	-	(11,959)	(11,959)	13,387	13,387	-	-	
2014	RF	1128	Detroit Edison Company	U.S.	590,035	590,035	-	-	588,078	588,078	-	-	(16,396)	(16,396)	18,353	18,353	-	-	
2014	RF	1166	Duke Energy Indiana	U.S.	398,051	398,051	-	-	396,730	396,730	-	-	(11,061)	(11,061)	12,381	12,381	-	-	
2014	RF	1135	Ferdinand Municipal Light & Water	U.S.	603	603	-	-	601	601	-	-	(17)	(17)	19	19	-	-	
2014	RF	1646	FirstEnergy Solutions (MECS-CONS)	U.S.	10,213	10,213	-	-	10,179	10,179	-	-	(284)	(284)	318	318	-	-	
2014	RF	1549	FirstEnergy Solutions (MECS-DET)	U.S.	28,173	28,173	-	-	28,079	28,079	-	-	(783)	(783)	876	876	-	-	
2014	RF	1612	Glacial Energy (MECS-DET)	U.S.	884	884	-	-	881	881	-	-	(25)	(25)	28	28	-	-	
2014	RF	1145	Hoosier Energy	U.S.	98,864	98,864	-	-	98,536	98,536	-	-	(2,747)	(2,747)	3,075	3,075	-	-	
2014	RF	1148	Indiana Municipal Power Agency (DUKE CIN)	U.S.	40,427	40,427	-	-	40,292	40,292	-	-	(1,123)	(1,123)	1,257	1,257	-	-	
2014	RF	1485	Indiana Municipal Power Agency (NIPSCO)	U.S.	5,592	5,592	-	-	5,574	5,574	-	-	(155)	(155)	174	174	-	-	
2014	RF	1486	Indiana Municipal Power Agency (SIGE)	U.S.	7,714	7,714	-	-	7,689	7,689	-	-	(214)	(214)	240	240	-	-	
2014	RF	1149	Indianapolis Power & Light Co.	U.S.	191,158	191,158	-	-	190,524	190,524	-	-	(5,312)	(5,312)	5,946	5,946	-	-	
2014	RF	1553	Integrus Energy Services (MECS-CONS)	U.S.	12,316	12,316	-	-	12,275	12,275	-	-	(342)	(342)	383	383	-	-	
2014	RF	1554	Integrus Energy Services (MECS-DET)	U.S.	10,120	10,120	-	-	10,087	10,087	-	-	(281)	(281)	315	315	-	-	
2014	RF	1666	Integrus Energy Services (WEPC)	U.S.	29,949	29,949	-	-	29,850	29,850	-	-	(832)	(832)	932	932	-	-	
2014	RF	1614	Just Energy (MECS-DET)	U.S.	474	474	-	-	472	472	-	-	(13)	(13)	15	15	-	-	
2014	RF	1154	Michigan Public Power Agency	U.S.	38,110	38,110	-	-	37,984	37,984	-	-	(1,059)	(1,059)	1,185	1,185	-	-	
2014	RF	1155	Michigan South Central Power Agency	U.S.	8,429	8,429	-	-	8,401	8,401	-	-	(234)	(234)	262	262	-	-	
2014	RF	1158	MidAmerican Energy Company Retail	U.S.	1,176	1,176	-	-	1,172	1,172	-	-	(33)	(33)	37	37	-	-	
2014	RF	1163	Northern Indiana Public Service Co.	U.S.	237,376	237,376	-	-	236,589	236,589	-	-	(6,596)	(6,596)	7,384	7,384	-	-	
2014	RF	1164	Ontonagon County Rural Electrification Assoc.	U.S.	377	377	-	-	375	375	-	-	(10)	(10)	12	12	-	-	
2014	RF	1265	PJM Interconnection, LLC	U.S.	9,067,419	9,067,419	-	-	9,037,340	9,037,340	-	-	(251,961)	(251,961)	282,039	282,039	-	-	
2014	RF	1172	Noble Americas Energy Solutions (MECS-CONS)	U.S.	7,277	7,277	-	-	7,253	7,253	-	-	(202)	(202)	226	226	-	-	
2014	RF	1171	Noble Americas Energy Solutions (MECS-DET)	U.S.	8,751	8,751	-	-	8,722	8,722	-	-	(243)	(243)	272	272	-	-	
2014	RF	1176	Direct Energy (fka:Strategic Energy,LLC) (MECS-CONS)	U.S.	422	422	-	-	421	421	-	-	(12)	(12)	13	13	-	-	
2014	RF	1174	Direct Energy (fka:Strategic Energy,LLC) (MECS-DET)	U.S.	5,360	5,360	-	-	5,342	5,342	-	-	(149)	(149)	167	167	-	-	
2014	RF	1581	Spartan Renewable Energy	U.S.	880	880	-	-	877	877	-	-	(24)	(24)	27	27	-	-	
2014	RF	1180	Thumb Electric Cooperative	U.S.	2,415	2,415	-	-	2,407	2,407	-	-	(67)	(67)	75	75	-	-	
2014	RF	1662	Ohio Valley Electric Corporation	U.S.	5,945	5,945	-	-	5,925	5,925	-	-	(165)	(165)	185	185	-	-	
2014	RF	1181	Vectren Energy Delivery of IN	U.S.	75,986	75,986	-	-	75,734	75,734	-	-	(2,111)	(2,111)	2,364	2,364	-	-	
2014	RF	1183	Village of Sebawaing	U.S.	550	550	-	-	549	549	-	-	(15)	(15)	17	17	-	-	

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Data Year	Regional Entity	ID	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	Mexico Total
2014	RF	1184	Wabash Valley Power Association Inc. (DUKE CIN)	U.S.	37,381	37,381	-	-	37,257	37,257	-	-	(1,039)	(1,039)	1,163	1,163	-	-
2014	RF	1488	Wabash Valley Power Association Inc.(NIPSCO)	U.S.	22,068	22,068	-	-	21,995	21,995	-	-	(613)	(613)	686	686	-	-
2014	RF	1185	Wisconsin Electric Power Co.	U.S.	341,882	341,882	-	-	340,748	340,748	-	-	(9,500)	(9,500)	10,634	10,634	-	-
2014	RF	1189	Wolverine Power Marketing Cooperative	U.S.	10,133	10,133	-	-	10,100	10,100	-	-	(282)	(282)	315	315	-	-
2014	RF	1191	Wolverine Power Supply Cooperative	U.S.	34,673	34,673	-	-	34,558	34,558	-	-	(963)	(963)	1,078	1,078	-	-
2014	RF	1190	Wolverine Power Marketing Cooperative(MECS-DET)	U.S.	1,813	1,813	-	-	1,807	1,807	-	-	(50)	(50)	56	56	-	-
TOTAL RELIABILITYFIRST					11,830,363	11,830,363	-	-	11,791,120	11,791,120	-	-	(328,737)	(328,737)	367,980	367,980	-	-
2014	SERC	1267	Alabama Municipal Electric Authority	U.S.	44,571	44,571	-	-	44,423	44,423	-	-	(1,239)	(1,239)	1,386	1,386	-	-
2014	SERC	1268	Alabama Power Company	U.S.	778,789	778,789	-	-	776,206	776,206	-	-	(21,641)	(21,641)	24,224	24,224	-	-
2014	SERC	1269	Ameren - Illinois	U.S.	556,671	556,671	-	-	554,824	554,824	-	-	(15,468)	(15,468)	17,315	17,315	-	-
2014	SERC	1271	Ameren - Missouri	U.S.	542,874	542,874	-	-	541,074	541,074	-	-	(15,085)	(15,085)	16,886	16,886	-	-
2014	SERC	1272	APGI - Yadkin Division	U.S.	227	227	-	-	227	227	-	-	(6)	(6)	7	7	-	-
2014	SERC	1273	Associated Electric Cooperative Inc.	U.S.	254,383	254,383	-	-	253,539	253,539	-	-	(7,069)	(7,069)	7,913	7,913	-	-
2014	SERC	1582	Beauregard Electric Cooperative, Inc.	U.S.	14,462	14,462	-	-	14,414	14,414	-	-	(402)	(402)	450	450	-	-
2014	SERC	1462	Benton Utility District	U.S.	3,288	3,288	-	-	3,277	3,277	-	-	(91)	(91)	102	102	-	-
2014	SERC	1274	Big Rivers Electric Corporation	U.S.	50,175	50,175	-	-	50,008	50,008	-	-	(1,394)	(1,394)	1,561	1,561	-	-
2014	SERC	1275	Black Warrior EMC	U.S.	5,827	5,827	-	-	5,808	5,808	-	-	(162)	(162)	181	181	-	-
2014	SERC	1276	Blue Ridge EMC	U.S.	18,237	18,237	-	-	18,177	18,177	-	-	(507)	(507)	567	567	-	-
2014	SERC	1628	Brazos Electric Power Cooperative, Inc.	U.S.	5,933	5,933	-	-	5,914	5,914	-	-	(165)	(165)	185	185	-	-
2014	SERC	1463	Canton, MS	U.S.	1,693	1,693	-	-	1,687	1,687	-	-	(47)	(47)	53	53	-	-
2014	SERC	1277	Central Electric Power Cooperative Inc.	U.S.	214,630	214,630	-	-	213,918	213,918	-	-	(5,964)	(5,964)	6,676	6,676	-	-
2014	SERC	1667	Century Aluminum - Hawesville	U.S.	54,522	54,522	-	-	54,341	54,341	-	-	(1,515)	(1,515)	1,696	1,696	-	-
2014	SERC	1668	Century Aluminum - Sebre	U.S.	43,669	43,669	-	-	43,524	43,524	-	-	(1,213)	(1,213)	1,358	1,358	-	-
2014	SERC	1278	City of Blountstown FL	U.S.	498	498	-	-	496	496	-	-	(14)	(14)	15	15	-	-
2014	SERC	1279	City of Camden SC	U.S.	2,580	2,580	-	-	2,572	2,572	-	-	(72)	(72)	80	80	-	-
2014	SERC	1280	City of Collins MS	U.S.	595	595	-	-	593	593	-	-	(17)	(17)	19	19	-	-
2014	SERC	1281	City of Columbia MO	U.S.	15,714	15,714	-	-	15,662	15,662	-	-	(437)	(437)	489	489	-	-
2014	SERC	1282	City of Conway AR (Conway Corporation)	U.S.	13,045	13,045	-	-	13,002	13,002	-	-	(362)	(362)	406	406	-	-
2014	SERC	1284	City of Evergreen AL	U.S.	752	752	-	-	749	749	-	-	(21)	(21)	23	23	-	-
2014	SERC	1285	City of Hampton GA	U.S.	401	401	-	-	400	400	-	-	(11)	(11)	12	12	-	-
2014	SERC	1286	City of Hartford AL	U.S.	395	395	-	-	394	394	-	-	(11)	(11)	12	12	-	-
2014	SERC	1287	City of Henderson (KY) Municipal Power & Light	U.S.	8,274	8,274	-	-	8,246	8,246	-	-	(230)	(230)	257	257	-	-
2014	SERC	1288	City of North Little Rock AR (DENL)	U.S.	12,287	12,287	-	-	12,247	12,247	-	-	(341)	(341)	382	382	-	-
2014	SERC	1289	City of Orangeburg SC Department of Public Utilities	U.S.	11,156	11,156	-	-	11,119	11,119	-	-	(310)	(310)	347	347	-	-
2014	SERC	1290	City of Robertsdale AL	U.S.	1,105	1,105	-	-	1,102	1,102	-	-	(31)	(31)	34	34	-	-
2014	SERC	1291	City of Ruston LA (DERS)	U.S.	3,549	3,549	-	-	3,537	3,537	-	-	(99)	(99)	110	110	-	-
2014	SERC	1292	Seneca Light & Power	U.S.	2,127	2,127	-	-	2,120	2,120	-	-	(59)	(59)	66	66	-	-
2014	SERC	1115	City of Springfield (CWLP)	U.S.	23,919	23,919	-	-	23,840	23,840	-	-	(665)	(665)	744	744	-	-
2014	SERC	1465	City of Thayer, MO	U.S.	306	306	-	-	305	305	-	-	(9)	(9)	10	10	-	-
2014	SERC	1293	City of Troy AL	U.S.	5,586	5,586	-	-	5,568	5,568	-	-	(155)	(155)	174	174	-	-
2014	SERC	1294	City of West Memphis AR (West Memphis Utilities)	U.S.	5,043	5,043	-	-	5,027	5,027	-	-	(140)	(140)	157	157	-	-
2014	SERC	1583	Claiborne Electric Cooperative, Inc.	U.S.	8,680	8,680	-	-	8,651	8,651	-	-	(241)	(241)	270	270	-	-
2014	SERC	1584	Concordia Electric Cooperative, Inc.	U.S.	3,405	3,405	-	-	3,394	3,394	-	-	(95)	(95)	106	106	-	-
2014	SERC	1283	Dalton Utilities	U.S.	21,187	21,187	-	-	21,117	21,117	-	-	(589)	(589)	659	659	-	-
2014	SERC	1585	Dixie Electric Membership Corporation	U.S.	29,317	29,317	-	-	29,220	29,220	-	-	(815)	(815)	912	912	-	-
2014	SERC	1295	Dominion Virginia Power	U.S.	1,103,113	1,103,113	-	-	1,099,454	1,099,454	-	-	(30,653)	(30,653)	34,312	34,312	-	-
2014	SERC	1296	Duke Energy Carolinas, LLC	U.S.	1,080,380	1,080,380	-	-	1,076,796	1,076,796	-	-	(30,021)	(30,021)	33,605	33,605	-	-
2014	SERC	1466	Durant, MS	U.S.	367	367	-	-	365	365	-	-	(10)	(10)	11	11	-	-
2014	SERC	1478	LG&E and KU Services Company as agent for LG&E Company and KUCompar	U.S.	460,140	460,140	-	-	458,614	458,614	-	-	(12,786)	(12,786)	14,313	14,313	-	-
2014	SERC	1297	East Kentucky Power Cooperative	U.S.	181,498	181,498	-	-	180,896	180,896	-	-	(5,043)	(5,043)	5,645	5,645	-	-
2014	SERC	1298	East Mississippi Electric Power Association	U.S.	5,945	5,945	-	-	5,925	5,925	-	-	(165)	(165)	185	185	-	-
2014	SERC	1669	Electricities of North Carolina Inc	U.S.	152,010	152,010	-	-	151,506	151,506	-	-	(4,224)	(4,224)	4,728	4,728	-	-
2014	SERC	1300	EnergyUnited EMC	U.S.	33,780	33,780	-	-	33,668	33,668	-	-	(939)	(939)	1,051	1,051	-	-
2014	SERC	1301	Entergy	U.S.	1,502,333	1,502,333	-	-	1,497,350	1,497,350	-	-	(41,746)	(41,746)	46,730	46,730	-	-
2014	SERC	1302	Fayetteville (NC) Public Works Commission	U.S.	28,518	28,518	-	-	28,423	28,423	-	-	(792)	(792)	887	887	-	-
2014	SERC	1303	Florida Public Utilities (FL Panhandle Load)	U.S.	4,085	4,085	-	-	4,071	4,071	-	-	(114)	(114)	127	127	-	-
2014	SERC	1304	French Broad EMC	U.S.	7,034	7,034	-	-	7,011	7,011	-	-	(195)	(195)	219	219	-	-
2014	SERC	1305	Georgia Power Company	U.S.	1,122,313	1,122,313	-	-	1,118,590	1,118,590	-	-	(31,186)	(31,186)	34,909	34,909	-	-
2014	SERC	1306	Georgia System Optms Corporation	U.S.	512,335	512,335	-	-	510,635	510,635	-	-	(14,237)	(14,237)	15,936	15,936	-	-
2014	SERC	1479	Greenwood (MS) Utilities Commission	U.S.	3,545	3,545	-	-	3,533	3,533	-	-	(99)	(99)	110	110	-	-
2014	SERC	1307	Greenwood (SC) Commissioners of Public Works	U.S.	4,233	4,233	-	-	4,219	4,219	-	-	(118)	(118)	132	132	-	-
2014	SERC	1308	Gulf Power Company	U.S.	151,306	151,306	-	-	150,804	150,804	-	-	(4,204)	(4,204)	4,706	4,706	-	-
2014	SERC	1586	Haywood EMC	U.S.	4,108	4,108	-	-	4,094	4,094	-	-	(114)	(114)	128	128	-	-
2014	SERC	1309	Illinois Municipal Electric Agency	U.S.	25,180	25,180	-	-	25,096	25,096	-	-	(700)	(700)	783	783	-	-

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					Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total	Total	US Total	Total	US Total	Canada Total	Mexico Total
2014	SERC	1480	Itta Bena, MS	U.S.	250	250	-	-	249	249	-	-	(7)	(7)	8	8	-	-
2014	SERC	1587	Jefferson Davis Electric Cooperative, Inc.	U.S.	3,782	3,782	-	-	3,770	3,770	-	-	(105)	(105)	118	118	-	-
2014	SERC	1617	Kentucky Municipal Power	U.S.	9,129	9,129	-	-	9,098	9,098	-	-	(254)	(254)	284	284	-	-
2014	SERC	1481	Kosciusko, MS	U.S.	983	983	-	-	980	980	-	-	(27)	(27)	31	31	-	-
2014	SERC	1482	Leland, MS	U.S.	420	420	-	-	418	418	-	-	(12)	(12)	13	13	-	-
2014	SERC		Lockhart Power Company	U.S.	4,604	4,604	-	-	4,589	4,589	-	-	(128)	(128)	143	143	-	-
2014	SERC	1313	McCormick Commission of Public Works	U.S.	280	280	-	-	279	279	-	-	(8)	(8)	9	9	-	-
2014	SERC	1314	Mississippi Power Company	U.S.	136,598	136,598	-	-	136,145	136,145	-	-	(3,796)	(3,796)	4,249	4,249	-	-
2014	SERC	1630	Mt. Carmel Public Utility	U.S.	1,396	1,396	-	-	1,392	1,392	-	-	(39)	(39)	43	43	-	-
2014	SERC	1315	Municipal Electric Authority of Georgia	U.S.	141,412	141,412	-	-	140,943	140,943	-	-	(3,929)	(3,929)	4,399	4,399	-	-
2014	SERC	1316	N.C. Electric Membership Corp.	U.S.	166,643	166,643	-	-	166,090	166,090	-	-	(4,631)	(4,631)	5,189	5,189	-	-
2014	SERC	1588	Northeast Louisiana Power Cooperative, Inc.	U.S.	4,223	4,223	-	-	4,209	4,209	-	-	(117)	(117)	131	131	-	-
2014	SERC	1574	Northern Virginia Electric Cooperative	U.S.	54,365	54,365	-	-	54,184	54,184	-	-	(1,511)	(1,511)	1,691	1,691	-	-
2014	SERC	1319	Old Dominion Electric Cooperative	U.S.	74,378	74,378	-	-	74,131	74,131	-	-	(2,067)	(2,067)	2,313	2,313	-	-
2014	SERC	1618	Osceola (Arkansas) Municipal Light and Power	U.S.	2,107	2,107	-	-	2,100	2,100	-	-	(59)	(59)	66	66	-	-
2014	SERC	1320	Owensboro (KY) Municipal Utilities	U.S.	11,143	11,143	-	-	11,106	11,106	-	-	(310)	(310)	347	347	-	-
2014	SERC	1321	Piedmont EMC in Duke and Progress Areas	U.S.	6,825	6,825	-	-	6,802	6,802	-	-	(190)	(190)	212	212	-	-
2014	SERC	1323	Piedmont Municipal Power Agency (PMPA)	U.S.	29,907	29,907	-	-	29,807	29,807	-	-	(831)	(831)	930	930	-	-
2014	SERC	1589	Pointe Coupee Electric Memb. Corp.	U.S.	3,420	3,420	-	-	3,408	3,408	-	-	(95)	(95)	106	106	-	-
2014	SERC	1266	PowerSouth Energy	U.S.	114,487	114,487	-	-	114,108	114,108	-	-	(3,181)	(3,181)	3,561	3,561	-	-
2014	SERC	1330	Prairie Power, Inc.	U.S.	21,012	21,012	-	-	20,943	20,943	-	-	(584)	(584)	654	654	-	-
2014	SERC	1324	Duke Energy Progress	U.S.	602,187	602,187	-	-	600,190	600,190	-	-	(16,733)	(16,733)	18,731	18,731	-	-
2014	SERC	1325	Rutherford EMC	U.S.	17,518	17,518	-	-	17,459	17,459	-	-	(487)	(487)	545	545	-	-
2014	SERC	1631	Sam Rayburn G&T Electric Cooperative Inc.	U.S.	24,111	24,111	-	-	24,031	24,031	-	-	(670)	(670)	750	750	-	-
2014	SERC	1326	South Carolina Electric & Gas Company	U.S.	303,814	303,814	-	-	302,807	302,807	-	-	(8,442)	(8,442)	9,450	9,450	-	-
2014	SERC	1327	South Carolina Public Service Authority	U.S.	147,596	147,596	-	-	147,106	147,106	-	-	(4,101)	(4,101)	4,591	4,591	-	-
2014	SERC	1590	South Louisiana Electric Cooperative Association	U.S.	8,232	8,232	-	-	8,205	8,205	-	-	(229)	(229)	256	256	-	-
2014	SERC	1328	South Mississippi Electric Power Association	U.S.	132,747	132,747	-	-	132,306	132,306	-	-	(3,689)	(3,689)	4,129	4,129	-	-
2014	SERC	1329	Southern Illinois Power Cooperative	U.S.	21,557	21,557	-	-	21,485	21,485	-	-	(599)	(599)	671	671	-	-
2014	SERC	1591	Southwest Louisiana Electric Membership Corporation	U.S.	35,080	35,080	-	-	34,964	34,964	-	-	(975)	(975)	1,091	1,091	-	-
2014	SERC	1619	Southwestern Electric Cooperative, Inc.	U.S.	5,920	5,920	-	-	5,900	5,900	-	-	(164)	(164)	184	184	-	-
2014	SERC	1331	Tennessee Valley Authority	U.S.	2,064,409	2,064,409	-	-	2,057,561	2,057,561	-	-	(57,365)	(57,365)	64,213	64,213	-	-
2014	SERC	1632	Tex-La Electric Cooperative of Texas, Inc	U.S.	2,682	2,682	-	-	2,673	2,673	-	-	(75)	(75)	83	83	-	-
2014	SERC	1332	Tombigbee Electric Cooperative Inc.	U.S.	1,730	1,730	-	-	1,724	1,724	-	-	(48)	(48)	54	54	-	-
2014	SERC	1594	Town of Sharpsburg, N.C.	U.S.	267	267	-	-	266	266	-	-	(7)	(7)	8	8	-	-
2014	SERC	1595	Town of Stantonsburg, N.C. JRO	U.S.	788	788	-	-	785	785	-	-	(22)	(22)	24	24	-	-
2014	SERC	1333	Town of Waynesville NC	U.S.	1,271	1,271	-	-	1,266	1,266	-	-	(35)	(35)	40	40	-	-
2014	SERC	1334	Town of Winstonsboro SC	U.S.	864	864	-	-	861	861	-	-	(24)	(24)	27	27	-	-
2014	SERC	1335	Town of Winterville NC	U.S.	695	695	-	-	693	693	-	-	(19)	(19)	22	22	-	-
2014	SERC	1597	Washington-St.Tammany Electric Cooperative, Inc.	U.S.	14,322	14,322	-	-	14,274	14,274	-	-	(398)	(398)	445	445	-	-
TOTAL SERC					13,315,250	13,315,250	-	-	13,271,081	13,271,081	-	-	(369,998)	(369,998)	414,167	414,167	-	-
2014	SPP	1246	American Electric Power	U.S.	482,888	482,888	-	-	481,286	481,286	-	-	(13,418)	(13,418)	15,020	15,020	-	-
2014	SPP	1435	Arkansas Electric Cooperative Corporation	U.S.	197,801	197,801	-	-	197,145	197,145	-	-	(5,496)	(5,496)	6,153	6,153	-	-
2014	SPP	1247	Board of Public Utilities (Kansas City KS)	U.S.	31,196	31,196	-	-	31,092	31,092	-	-	(867)	(867)	970	970	-	-
2014	SPP	1620	Board of Public Utilities, City of McPherson, Kansas	U.S.	12,212	12,212	-	-	12,171	12,171	-	-	(339)	(339)	380	380	-	-
2014	SPP	1647	Carthage City Water & Light	U.S.	4,101	4,101	-	-	4,088	4,088	-	-	(114)	(114)	128	128	-	-
2014	SPP	1469	Central Valley Electric Cooperative	U.S.	11,810	11,810	-	-	11,771	11,771	-	-	(328)	(328)	367	367	-	-
2014	SPP	1556	City of Bentonville	U.S.	8,374	8,374	-	-	8,346	8,346	-	-	(233)	(233)	260	260	-	-
2014	SPP	1557	City of Clarksdale, Mississippi	U.S.	2,116	2,116	-	-	2,109	2,109	-	-	(59)	(59)	66	66	-	-
2014	SPP	1558	Hope Water & Light (HWL)	U.S.	3,882	3,882	-	-	3,869	3,869	-	-	(108)	(108)	121	121	-	-
2014	SPP	1559	City of Minden	U.S.	2,008	2,008	-	-	2,002	2,002	-	-	(56)	(56)	62	62	-	-
2014	SPP		City of Chanute	U.S.	6,497	6,497	-	-	6,475	6,475	-	-	(181)	(181)	202	202	-	-
2014	SPP	1636	City of Prescott	U.S.	1,127	1,127	-	-	1,123	1,123	-	-	(31)	(31)	35	35	-	-
2014	SPP	1248	Independence Power & Light (Independence, MO)	U.S.	13,641	13,641	-	-	13,596	13,596	-	-	(379)	(379)	424	424	-	-
2014	SPP	1436	City Utilities of Springfield, MO	U.S.	41,153	41,153	-	-	41,017	41,017	-	-	(1,144)	(1,144)	1,280	1,280	-	-
2014	SPP	1249	Cleco Power LLC	U.S.	165,584	165,584	-	-	165,035	165,035	-	-	(4,601)	(4,601)	5,150	5,150	-	-
2014	SPP	1437	East Texas Electric Coop, Inc.	U.S.	5,353	5,353	-	-	5,335	5,335	-	-	(149)	(149)	167	167	-	-
2014	SPP	1250	The Empire District Electric Company	U.S.	69,510	69,510	-	-	69,280	69,280	-	-	(1,932)	(1,932)	2,162	2,162	-	-
2014	SPP	1470	Farmers' Electric Coop	U.S.	4,714	4,714	-	-	4,699	4,699	-	-	(131)	(131)	147	147	-	-
2014	SPP	1438	Golden Spread Electric Coop	U.S.	71,190	71,190	-	-	70,954	70,954	-	-	(1,978)	(1,978)	2,214	2,214	-	-
2014	SPP	1251	Grand River Dam Authority	U.S.	67,466	67,466	-	-	67,242	67,242	-	-	(1,875)	(1,875)	2,098	2,098	-	-
2014	SPP	1648	Jonesboro City Water & Light	U.S.	17,305	17,305	-	-	17,248	17,248	-	-	(481)	(481)	538	538	-	-
2014	SPP	1252	Kansas City Power & Light (KCPL)	U.S.	206,225	206,225	-	-	205,541	205,541	-	-	(5,730)	(5,730)	6,415	6,415	-	-
2014	SPP	1439	Kansas Electric Power Coop., Inc	U.S.	29,448	29,448	-	-	29,350	29,350	-	-	(818)	(818)	916	916	-	-

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Data Year	Regional Entity	ID	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	Mexico Total
2014	SPP	1440	Kansas Municipal Energy Agency (KCPL)	U.S.	18,533	18,533	-	-	18,471	18,471	-	-	(515)	(515)	576	576	-	-
2014	SPP	1637	Kansas Power Pool	U.S.	11,833	11,833	-	-	11,794	11,794	-	-	(329)	(329)	368	368	-	-
2014	SPP	1649	Kennett Board of Public Works	U.S.	2,091	2,091	-	-	2,084	2,084	-	-	(58)	(58)	65	65	-	-
2014	SPP	1598	KCP&L GMOCC (Greater Missouri Operations Company)	U.S.	113,850	113,850	-	-	113,472	113,472	-	-	(3,164)	(3,164)	3,541	3,541	-	-
2014	SPP	1471	Lafayette Utilities System	U.S.	26,886	26,886	-	-	26,797	26,797	-	-	(747)	(747)	836	836	-	-
2014	SPP	1472	Lea County Electric Coop	U.S.	16,751	16,751	-	-	16,696	16,696	-	-	(465)	(465)	521	521	-	-
2014	SPP	1253	Louisiana Energy & Power Authority (LEPA)	U.S.	13,369	13,369	-	-	13,325	13,325	-	-	(371)	(371)	416	416	-	-
2014	SPP	1650	Malden Board of Public Works	U.S.	702	702	-	-	699	699	-	-	(19)	(19)	22	22	-	-
2014	SPP	1441	Midwest Energy Inc.	U.S.	23,884	23,884	-	-	23,804	23,804	-	-	(664)	(664)	743	743	-	-
2014	SPP	1443	Missouri Joint Municipal Electric Utility Commission	U.S.	34,415	34,415	-	-	34,301	34,301	-	-	(956)	(956)	1,070	1,070	-	-
2014	SPP	1442	Northeast Texas Electric Cooperative, Inc.	U.S.	42,728	42,728	-	-	42,586	42,586	-	-	(1,187)	(1,187)	1,329	1,329	-	-
2014	SPP	1255	Oklahoma Gas and Electric Co.	U.S.	367,849	367,849	-	-	366,629	366,629	-	-	(10,222)	(10,222)	11,442	11,442	-	-
2014	SPP	1444	Oklahoma Municipal Power Auth	U.S.	37,290	37,290	-	-	37,166	37,166	-	-	(1,036)	(1,036)	1,160	1,160	-	-
2014	SPP	1639	OzMo Ozark Missouri, West Plains MO	U.S.	2,711	2,711	-	-	2,702	2,702	-	-	(75)	(75)	84	84	-	-
2014	SPP	1651	Paragould Light, Water & Cable	U.S.	8,331	8,331	-	-	8,303	8,303	-	-	(231)	(231)	259	259	-	-
2014	SPP	1652	Piggott Municipal Light, Water & Sewer	U.S.	559	559	-	-	557	557	-	-	(16)	(16)	17	17	-	-
2014	SPP	1653	Poplar Bluff Municipal Utilities	U.S.	5,371	5,371	-	-	5,353	5,353	-	-	(149)	(149)	167	167	-	-
2014	SPP	1561	Public Service Commission of Yazoo City of Mississippi	U.S.	1,505	1,505	-	-	1,500	1,500	-	-	(42)	(42)	47	47	-	-
2014	SPP	1473	Roosevelt County Electric Coop	U.S.	2,361	2,361	-	-	2,353	2,353	-	-	(66)	(66)	73	73	-	-
2014	SPP	1654	Sikeston Board of Municipal Utilities	U.S.	5,576	5,576	-	-	5,557	5,557	-	-	(155)	(155)	173	173	-	-
2014	SPP	1257	Southwestern Public Service Co. (SPS-XCEL)	U.S.	278,654	278,654	-	-	277,730	277,730	-	-	(7,743)	(7,743)	8,667	8,667	-	-
2014	SPP	1256	Sunflower Electric Power Cooperative	U.S.	60,227	60,227	-	-	60,027	60,027	-	-	(1,674)	(1,674)	1,873	1,873	-	-
2014	SPP	1445	Tex - La Electric Cooperative of Texas	U.S.	6,439	6,439	-	-	6,418	6,418	-	-	(179)	(179)	200	200	-	-
2014	SPP	1475	Tri County Electric Coop	U.S.	5,154	5,154	-	-	5,137	5,137	-	-	(143)	(143)	160	160	-	-
2014	SPP	1260	Westar Energy, Inc.	U.S.	282,806	282,806	-	-	281,868	281,868	-	-	(7,858)	(7,858)	8,797	8,797	-	-
2014	SPP	1259	Western Farmers Electric Cooperative	U.S.	120,311	120,311	-	-	119,912	119,912	-	-	(3,343)	(3,343)	3,742	3,742	-	-
2014	SPP	1501	West Texas Municipal Power Agency	U.S.	37,077	37,077	-	-	36,954	36,954	-	-	(1,030)	(1,030)	1,153	1,153	-	-
TOTAL SPP					2,982,867	2,982,867	-	-	2,972,972	2,972,972	-	-	(82,886)	(82,886)	92,781	92,781	-	-
2014	TRE	1019	ERCOT	U.S.	4,416,501	4,416,501	-	-	4,401,850	4,401,850	-	-	(122,724)	(122,724)	137,374	137,374	-	-
TOTAL ERCOT					4,416,501	4,416,501	-	-	4,401,850	4,401,850	-	-	(122,724)	(122,724)	137,374	137,374	-	-
2014	WECC		Alberta Electric System Operator	Canada	514,324	-	514,324	-	808,586	-	808,586	-	-	-	(294,262)	-	(294,262)	-
2014	WECC		British Columbia Hydro & Power Authority	Canada	785,417	-	785,417	-	761,648	-	761,648	-	-	-	23,770	-	23,770	-
2014	WECC		Comision Federal de Electricidad	Mexico	159,765	-	-	159,765	154,930	-	-	154,930	-	-	4,835	-	-	4,835
2014	WECC		Ajo Improvement District	U.S.	173	173	-	-	173	173	-	-	(5)	(5)	5	5	-	-
2014	WECC		Aguila Irrigation District - APS	U.S.	507	507	-	-	505	505	-	-	(14)	(14)	16	16	-	-
2014	WECC		Electrical District No. 6 of Pinal County - APS	U.S.	33	33	-	-	33	33	-	-	(1)	(1)	1	1	-	-
2014	WECC		Electrical District No. 7 of Maricopa County - APS	U.S.	664	664	-	-	662	662	-	-	(18)	(18)	21	21	-	-
2014	WECC		Electrical District No. 8 of Maricopa County - APS	U.S.	4,128	4,128	-	-	4,114	4,114	-	-	(115)	(115)	128	128	-	-
2014	WECC		Harquahala Valley Power Districts - APS	U.S.	1,196	1,196	-	-	1,192	1,192	-	-	(33)	(33)	37	37	-	-
2014	WECC		Maricopa County Municipal Water Conservation Dist No. 1 - APS	U.S.	712	712	-	-	710	710	-	-	(20)	(20)	22	22	-	-
2014	WECC		McMullen Valley Water Conservation & Drainage District - APS	U.S.	1,065	1,065	-	-	1,062	1,062	-	-	(30)	(30)	33	33	-	-
2014	WECC		Roosevelt Irrigation District - APS	U.S.	538	538	-	-	536	536	-	-	(15)	(15)	17	17	-	-
2014	WECC		Tonopah Irrigation District - APS	U.S.	263	263	-	-	262	262	-	-	(7)	(7)	8	8	-	-
2014	WECC		Buckeye Water Conservation and Drainage District - APS	U.S.	261	261	-	-	260	260	-	-	(7)	(7)	8	8	-	-
2014	WECC		Arizona Public Service Company	U.S.	380,010	380,010	-	-	378,750	378,750	-	-	(10,560)	(10,560)	11,820	11,820	-	-
2014	WECC		City of Williams	U.S.	554	554	-	-	553	553	-	-	(15)	(15)	17	17	-	-
2014	WECC		Electrical Districts 1 & 3	U.S.	8,748	8,748	-	-	8,719	8,719	-	-	(243)	(243)	272	272	-	-
2014	WECC		Navajo Tribal Utility Authority	U.S.	264	264	-	-	263	263	-	-	(7)	(7)	8	8	-	-
2014	WECC		Tohono O'odham Utility Authority	U.S.	825	825	-	-	822	822	-	-	(23)	(23)	26	26	-	-
2014	WECC		Town of Wickenburg	U.S.	342	342	-	-	341	341	-	-	(10)	(10)	11	11	-	-
2014	WECC		Avista Corporation	U.S.	123,765	123,765	-	-	123,354	123,354	-	-	(3,439)	(3,439)	3,850	3,850	-	-
2014	WECC		Big Bend Electric Cooperative, Inc.	U.S.	1,947	1,947	-	-	1,941	1,941	-	-	(54)	(54)	61	61	-	-
2014	WECC		City of Cheney	U.S.	1,936	1,936	-	-	1,929	1,929	-	-	(54)	(54)	60	60	-	-
2014	WECC		City of Chewelah	U.S.	304	304	-	-	303	303	-	-	(8)	(8)	9	9	-	-
2014	WECC		City of Plummer	U.S.	451	451	-	-	450	450	-	-	(13)	(13)	14	14	-	-
2014	WECC		Clearwater Cooperative, Inc	U.S.	2,189	2,189	-	-	2,182	2,182	-	-	(61)	(61)	68	68	-	-
2014	WECC		Consolidated Irrigation District No. 19	U.S.	91	91	-	-	91	91	-	-	(3)	(3)	3	3	-	-
2014	WECC		Idaho County Light and Power Cooperative Association, Inc.	U.S.	755	755	-	-	753	753	-	-	(21)	(21)	23	23	-	-
2014	WECC		Inland Power and Light Company	U.S.	6,232	6,232	-	-	6,211	6,211	-	-	(173)	(173)	194	194	-	-
2014	WECC		Kaiser Aluminum Fabricated Products LLC	U.S.	4,098	4,098	-	-	4,084	4,084	-	-	(114)	(114)	127	127	-	-
2014	WECC		Kootenai Electric Cooperative, Inc.	U.S.	6,212	6,212	-	-	6,191	6,191	-	-	(173)	(173)	193	193	-	-
2014	WECC		Modern Electric Water Company	U.S.	3,037	3,037	-	-	3,027	3,027	-	-	(84)	(84)	94	94	-	-
2014	WECC		Northern Lights, Inc.	U.S.	467	467	-	-	466	466	-	-	(13)	(13)	15	15	-	-

2014 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2016 NERC and RE Assessments

Data Year	Regional Entity	ID	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	Mexico Total
2014	WECC		Pend Oreille County PUD No. 1	U.S.	11,928	11,928	-	-	11,888	11,888	-	-	(331)	(331)	371	371	-	-
2014	WECC		PUD No. 1 of Asotin County	U.S.	66	66	-	-	66	66	-	-	(2)	(2)	2	2	-	-
2014	WECC		PUD No. 2 of Grant County	U.S.	1,257	1,257	-	-	1,252	1,252	-	-	(35)	(35)	39	39	-	-
2014	WECC		U.S. BOR East Greenacres (Rathdrum)	U.S.	41	41	-	-	41	41	-	-	(1)	(1)	1	1	-	-
2014	WECC		U.S. Bor Spokane Indian Development	U.S.	41	41	-	-	41	41	-	-	(1)	(1)	1	1	-	-
2014	WECC		US Air Force Base, Fairchild	U.S.	637	637	-	-	635	635	-	-	(18)	(18)	20	20	-	-
2014	WECC		City of Redding	U.S.	10,280	10,280	-	-	10,246	10,246	-	-	(286)	(286)	320	320	-	-
2014	WECC		City of Roseville	U.S.	16,108	16,108	-	-	16,055	16,055	-	-	(448)	(448)	501	501	-	-
2014	WECC		Modesto Irrigation District	U.S.	33,452	33,452	-	-	33,341	33,341	-	-	(930)	(930)	1,041	1,041	-	-
2014	WECC		Sacramento Municipal Utility District	U.S.	145,730	145,730	-	-	145,247	145,247	-	-	(4,049)	(4,049)	4,533	4,533	-	-
2014	WECC		Western Area Power Administration - Sierra Nevada Region	U.S.	17,107	17,107	-	-	17,050	17,050	-	-	(475)	(475)	532	532	-	-
2014	WECC		Bonneville Power Administration	U.S.	705,806	705,806	-	-	703,464	703,464	-	-	(19,613)	(19,613)	21,954	21,954	-	-
2014	WECC		California Independent System Operator	U.S.	2,993,611	2,993,611	-	-	2,983,681	2,983,681	-	-	(83,185)	(83,185)	93,115	93,115	-	-
2014	WECC		El Paso Electric Company	U.S.	106,515	106,515	-	-	106,162	106,162	-	-	(2,960)	(2,960)	3,313	3,313	-	-
2014	WECC		Bonneville Power Administration	U.S.	22,997	22,997	-	-	22,920	22,920	-	-	(639)	(639)	715	715	-	-
2014	WECC		Idaho Power Company	U.S.	200,852	200,852	-	-	200,186	200,186	-	-	(5,581)	(5,581)	6,247	6,247	-	-
2014	WECC		PacifiCorp	U.S.	27	27	-	-	26	26	-	-	(1)	(1)	1	1	-	-
2014	WECC		Imperial Irrigation District	U.S.	47,881	47,881	-	-	47,722	47,722	-	-	(1,330)	(1,330)	1,489	1,489	-	-
2014	WECC		Los Angeles Department of Water and Power	U.S.	384,323	384,323	-	-	383,049	383,049	-	-	(10,679)	(10,679)	11,954	11,954	-	-
2014	WECC		City of Henderson	U.S.	555	555	-	-	553	553	-	-	(15)	(15)	17	17	-	-
2014	WECC		City of Las Vegas	U.S.	562	562	-	-	560	560	-	-	(16)	(16)	17	17	-	-
2014	WECC		City of North Las Vegas	U.S.	250	250	-	-	249	249	-	-	(7)	(7)	8	8	-	-
2014	WECC		Clark County Water Resources	U.S.	1,016	1,016	-	-	1,012	1,012	-	-	(28)	(28)	32	32	-	-
2014	WECC		Colorado River Commission of Nevada	U.S.	11,936	11,936	-	-	11,897	11,897	-	-	(332)	(332)	371	371	-	-
2014	WECC		Las Vegas Valley Water District	U.S.	1,238	1,238	-	-	1,234	1,234	-	-	(34)	(34)	39	39	-	-
2014	WECC		Nevada Power Company dba NV Energy	U.S.	324,240	324,240	-	-	323,164	323,164	-	-	(9,010)	(9,010)	10,085	10,085	-	-
2014	WECC		Overton Power District No. 5	U.S.	4,900	4,900	-	-	4,883	4,883	-	-	(136)	(136)	152	152	-	-
2014	WECC		Southern Nevada Water Authority	U.S.	1,547	1,547	-	-	1,542	1,542	-	-	(43)	(43)	48	48	-	-
2014	WECC		Bonneville Power Administration	U.S.	10,103	10,103	-	-	10,070	10,070	-	-	(281)	(281)	314	314	-	-
2014	WECC		Central Montana Electric Power Cooperative	U.S.	5,406	5,406	-	-	5,389	5,389	-	-	(150)	(150)	168	168	-	-
2014	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC	U.S.	120,065	120,065	-	-	119,666	119,666	-	-	(3,336)	(3,336)	3,735	3,735	-	-
2014	WECC		Southern Montana Electric Generation & Transmission	U.S.	5,063	5,063	-	-	5,046	5,046	-	-	(141)	(141)	157	157	-	-
2014	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	101	101	-	-	101	101	-	-	(3)	(3)	3	3	-	-
2014	WECC		PacifiCorp	U.S.	646,220	646,220	-	-	644,077	644,077	-	-	(17,957)	(17,957)	20,101	20,101	-	-
2014	WECC		PacifiCorp West (PACW)	U.S.	270,763	270,763	-	-	269,865	269,865	-	-	(7,524)	(7,524)	8,422	8,422	-	-
2014	WECC		Bonneville Power Administration	U.S.	114	114	-	-	114	114	-	-	(3)	(3)	4	4	-	-
2014	WECC		Canby Public Utility Board	U.S.	2,139	2,139	-	-	2,132	2,132	-	-	(59)	(59)	67	67	-	-
2014	WECC		Columbia River PUD	U.S.	3,935	3,935	-	-	3,922	3,922	-	-	(109)	(109)	122	122	-	-
2014	WECC		Noble Americas Energy Solutions, LLC	U.S.	22,264	22,264	-	-	22,191	22,191	-	-	(619)	(619)	693	693	-	-
2014	WECC		PacifiCorp	U.S.	29	29	-	-	28	28	-	-	(1)	(1)	1	1	-	-
2014	WECC		Portland General Electric Company	U.S.	248,295	248,295	-	-	247,472	247,472	-	-	(6,900)	(6,900)	7,723	7,723	-	-
2014	WECC		West Oregon Electric Cooperative, Inc.	U.S.	151	151	-	-	151	151	-	-	(4)	(4)	5	5	-	-
2014	WECC		Arkansas River Power Authority (ARPA)	U.S.	3,385	3,385	-	-	3,373	3,373	-	-	(94)	(94)	105	105	-	-
2014	WECC		Black Hills Colorado Electric	U.S.	25,348	25,348	-	-	25,264	25,264	-	-	(704)	(704)	788	788	-	-
2014	WECC		Burlington	U.S.	901	901	-	-	898	898	-	-	(25)	(25)	28	28	-	-
2014	WECC		Colorado Springs Utilities	U.S.	384	384	-	-	383	383	-	-	(11)	(11)	12	12	-	-
2014	WECC		Grand Valley Power	U.S.	2,964	2,964	-	-	2,954	2,954	-	-	(82)	(82)	92	92	-	-
2014	WECC		Holy Cross Energy	U.S.	14,535	14,535	-	-	14,487	14,487	-	-	(404)	(404)	452	452	-	-
2014	WECC		Intermountain Rural Electric Association	U.S.	27,645	27,645	-	-	27,553	27,553	-	-	(768)	(768)	860	860	-	-
2014	WECC		Municipal Energy Agency of Nebraska	U.S.	2,321	2,321	-	-	2,313	2,313	-	-	(64)	(64)	72	72	-	-
2014	WECC		Platte River Power Authority	U.S.	41,401	41,401	-	-	41,264	41,264	-	-	(1,150)	(1,150)	1,288	1,288	-	-
2014	WECC		Public Service Company of Colorado (Xcel)	U.S.	359,791	359,791	-	-	358,598	358,598	-	-	(9,998)	(9,998)	11,191	11,191	-	-
2014	WECC		Raton Public Service	U.S.	730	730	-	-	728	728	-	-	(20)	(20)	23	23	-	-
2014	WECC		Town of Center	U.S.	193	193	-	-	193	193	-	-	(5)	(5)	6	6	-	-
2014	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability	U.S.	30,347	30,347	-	-	30,246	30,246	-	-	(843)	(843)	944	944	-	-
2014	WECC		Western Area Power - Loveland, CO	U.S.	2,173	2,173	-	-	2,166	2,166	-	-	(60)	(60)	68	68	-	-
2014	WECC		Yampa Valley Electric Association	U.S.	7,223	7,223	-	-	7,199	7,199	-	-	(201)	(201)	225	225	-	-
2014	WECC		City of Aztec Electric Dept	U.S.	508	508	-	-	506	506	-	-	(14)	(14)	16	16	-	-
2014	WECC		City of Gallup	U.S.	2,388	2,388	-	-	2,380	2,380	-	-	(66)	(66)	74	74	-	-
2014	WECC		Jicarilla Apache Nation Power Authority	U.S.	186	186	-	-	185	185	-	-	(5)	(5)	6	6	-	-
2014	WECC		Navajo Tribal Utility Authority	U.S.	3,439	3,439	-	-	3,428	3,428	-	-	(96)	(96)	107	107	-	-
2014	WECC		Navopache Electric Cooperative, Inc.	U.S.	4,517	4,517	-	-	4,502	4,502	-	-	(126)	(126)	141	141	-	-
2014	WECC		Public Service Company of New Mexico	U.S.	137,632	137,632	-	-	137,175	137,175	-	-	(3,824)	(3,824)	4,281	4,281	-	-
2014	WECC		The Incorporated County of Los Alamos	U.S.	4,521	4,521	-	-	4,506	4,506	-	-	(126)	(126)	141	141	-	-
2014	WECC		Tri-State Generation & Transmission Association, Inc.	U.S.	31,356	31,356	-	-	31,252	31,252	-	-	(871)	(871)	975	975	-	-

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					Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total	Total	US Total	Total	US Total	Canada Total	Mexico Total
2014	WECC		US Dept of Energy - Kirtland AFB	U.S.	5,205	5,205	-	-	5,188	5,188	-	-	(145)	(145)	162	162	-	-
2014	WECC		Public Utility District No. 1 of Chelan County	U.S.	50,875	50,875	-	-	50,706	50,706	-	-	(1,414)	(1,414)	1,582	1,582	-	-
2014	WECC		PUD No. 1 of Douglas County	U.S.	10,233	10,233	-	-	10,199	10,199	-	-	(284)	(284)	318	318	-	-
2014	WECC		Okanogan PUD	U.S.	8,364	8,364	-	-	8,337	8,337	-	-	(232)	(232)	260	260	-	-
2014	WECC		BPA - Douglas Pumping	U.S.	338	338	-	-	337	337	-	-	(9)	(9)	11	11	-	-
2014	WECC		BPA - Okanogan Pumping	U.S.	404	404	-	-	403	403	-	-	(11)	(11)	13	13	-	-
2014	WECC		BPA - Okanogan REA	U.S.	771	771	-	-	768	768	-	-	(21)	(21)	24	24	-	-
2014	WECC		BPA - USBR Load	U.S.	1,785	1,785	-	-	1,779	1,779	-	-	(50)	(50)	56	56	-	-
2014	WECC		BPA - Big Bend/Schrag Load	U.S.	553	553	-	-	551	551	-	-	(15)	(15)	17	17	-	-
2014	WECC		BPA - Kittitas Load	U.S.	92	92	-	-	92	92	-	-	(3)	(3)	3	3	-	-
2014	WECC		Douglas Palisades / PUD No. 1 of DC	U.S.	261	261	-	-	260	260	-	-	(7)	(7)	8	8	-	-
2014	WECC		PUD No. 2 of Grant County	U.S.	54,307	54,307	-	-	54,127	54,127	-	-	(1,509)	(1,509)	1,689	1,689	-	-
2014	WECC		City of Blaine	U.S.	1,018	1,018	-	-	1,014	1,014	-	-	(28)	(28)	32	32	-	-
2014	WECC		City of Sumas	U.S.	402	402	-	-	401	401	-	-	(11)	(11)	13	13	-	-
2014	WECC		Port of Seattle - Seattle-Tacoma International Airport	U.S.	1,844	1,844	-	-	1,838	1,838	-	-	(51)	(51)	57	57	-	-
2014	WECC		PUD No. 1 of Kittitas County	U.S.	214	214	-	-	213	213	-	-	(6)	(6)	7	7	-	-
2014	WECC		PUD No. 1 of Whatcom County	U.S.	69	69	-	-	69	69	-	-	(2)	(2)	2	2	-	-
2014	WECC		Puget Sound Energy, Inc.	U.S.	309,725	309,725	-	-	308,698	308,698	-	-	(8,606)	(8,606)	9,634	9,634	-	-
2014	WECC		Tanner Electric Cooperative	U.S.	1,260	1,260	-	-	1,256	1,256	-	-	(35)	(35)	39	39	-	-
2014	WECC		Salt River Project	U.S.	377,263	377,263	-	-	376,012	376,012	-	-	(10,483)	(10,483)	11,735	11,735	-	-
2014	WECC		Seattle City Light	U.S.	128,116	128,116	-	-	127,691	127,691	-	-	(3,560)	(3,560)	3,985	3,985	-	-
2014	WECC		Barrick Goldstrike Mines Inc.	U.S.	14,484	14,484	-	-	14,436	14,436	-	-	(402)	(402)	451	451	-	-
2014	WECC		City of Fallon	U.S.	1,661	1,661	-	-	1,656	1,656	-	-	(46)	(46)	52	52	-	-
2014	WECC		Harney Electric Cooperative, Inc.	U.S.	1,597	1,597	-	-	1,591	1,591	-	-	(44)	(44)	50	50	-	-
2014	WECC		Mt. Wheeler Power	U.S.	7,017	7,017	-	-	6,994	6,994	-	-	(195)	(195)	218	218	-	-
2014	WECC		Sierra Pacific Power Company dba NV Energy	U.S.	118,766	118,766	-	-	118,372	118,372	-	-	(3,300)	(3,300)	3,694	3,694	-	-
2014	WECC		Truckee Donner Public Utility District	U.S.	1,880	1,880	-	-	1,874	1,874	-	-	(52)	(52)	58	58	-	-
2014	WECC		Wells Rural Electric Cooperative	U.S.	8,648	8,648	-	-	8,620	8,620	-	-	(240)	(240)	269	269	-	-
2014	WECC		City of Tacoma DBA Tacoma Power	U.S.	63,698	63,698	-	-	63,486	63,486	-	-	(1,770)	(1,770)	1,981	1,981	-	-
2014	WECC		Tucson Electric Power Company	U.S.	197,515	197,515	-	-	196,860	196,860	-	-	(5,488)	(5,488)	6,144	6,144	-	-
2014	WECC		Merced Irrigation District	U.S.	6,189	6,189	-	-	6,168	6,168	-	-	(172)	(172)	192	192	-	-
2014	WECC		Turlock Irrigation District	U.S.	27,804	27,804	-	-	27,712	27,712	-	-	(773)	(773)	865	865	-	-
2014	WECC		Basin Electric Power Cooperative	U.S.	39,434	39,434	-	-	39,303	39,303	-	-	(1,096)	(1,096)	1,227	1,227	-	-
2014	WECC		Black Hills Power/Cheyenne Light Fuel & Power	U.S.	44,491	44,491	-	-	44,344	44,344	-	-	(1,236)	(1,236)	1,384	1,384	-	-
2014	WECC		Black Hills State University South Dakota	U.S.	250	250	-	-	249	249	-	-	(7)	(7)	8	8	-	-
2014	WECC		City of Page	U.S.	1,129	1,129	-	-	1,125	1,125	-	-	(31)	(31)	35	35	-	-
2014	WECC		Colorado Springs Utilities	U.S.	58,347	58,347	-	-	58,153	58,153	-	-	(1,621)	(1,621)	1,815	1,815	-	-
2014	WECC		Deseret Generation & Transmission Cooperative	U.S.	1,463	1,463	-	-	1,458	1,458	-	-	(41)	(41)	46	46	-	-
2014	WECC		City of Farmington	U.S.	14,220	14,220	-	-	14,173	14,173	-	-	(395)	(395)	442	442	-	-
2014	WECC		Municipal Energy Agency of Nebraska	U.S.	8,721	8,721	-	-	8,692	8,692	-	-	(242)	(242)	271	271	-	-
2014	WECC		Navajo Agricultural Products Industry (NAPI)	U.S.	114	114	-	-	114	114	-	-	(3)	(3)	4	4	-	-
2014	WECC		Nebraska Public Power Marketing	U.S.	47	47	-	-	47	47	-	-	(1)	(1)	1	1	-	-
2014	WECC		PacifiCorp	U.S.	1,547	1,547	-	-	1,542	1,542	-	-	(43)	(43)	48	48	-	-
2014	WECC		Public Service Company of Colorado (Xcel)	U.S.	476	476	-	-	474	474	-	-	(13)	(13)	15	15	-	-
2014	WECC		Town of Fredonia	U.S.	141	141	-	-	140	140	-	-	(4)	(4)	4	4	-	-
2014	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability	U.S.	93,699	93,699	-	-	93,389	93,389	-	-	(2,604)	(2,604)	2,914	2,914	-	-
2014	WECC		Western Area Power - Loveland, CO	U.S.	29,876	29,876	-	-	29,777	29,777	-	-	(830)	(830)	929	929	-	-
2014	WECC		Western Area Power Administration - CRSP	U.S.	22,540	22,540	-	-	22,465	22,465	-	-	(626)	(626)	701	701	-	-
2014	WECC		Wyoming Municipal Power Agency	U.S.	3,639	3,639	-	-	3,626	3,626	-	-	(101)	(101)	113	113	-	-
2014	WECC		Basin Electric Power Cooperative	U.S.	745	745	-	-	743	743	-	-	(21)	(21)	23	23	-	-
2014	WECC		Bonneville Power Administration	U.S.	144	144	-	-	144	144	-	-	(4)	(4)	4	4	-	-
2014	WECC		Central Montana Electric Power Cooperative	U.S.	816	816	-	-	814	814	-	-	(23)	(23)	25	25	-	-
2014	WECC		Montana-Dakota Utilities Co.	U.S.	304	304	-	-	303	303	-	-	(8)	(8)	9	9	-	-
2014	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC	U.S.	3,135	3,135	-	-	3,125	3,125	-	-	(87)	(87)	98	98	-	-
2014	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	5,360	5,360	-	-	5,342	5,342	-	-	(149)	(149)	167	167	-	-
2014	WECC		Aha Macav Power Service	U.S.	339	339	-	-	338	338	-	-	(9)	(9)	11	11	-	-
2014	WECC		Bureau of Reclamation (Desalter) - c/o DSW EMMO	U.S.	8	8	-	-	8	8	-	-	(0)	(0)	0	0	-	-
2014	WECC		Bureau of Reclamation (Wellfield) - c/o DSW EMMO	U.S.	88	88	-	-	88	88	-	-	(2)	(2)	3	3	-	-
2014	WECC		Central Arizona Water Conservation District	U.S.	33,632	33,632	-	-	33,521	33,521	-	-	(935)	(935)	1,046	1,046	-	-
2014	WECC		City of Mesa	U.S.	3,254	3,254	-	-	3,243	3,243	-	-	(90)	(90)	101	101	-	-
2014	WECC		City of Needles	U.S.	374	374	-	-	373	373	-	-	(10)	(10)	12	12	-	-
2014	WECC		Colorado River Agency-Bureau of Indian Affairs	U.S.	167	167	-	-	167	167	-	-	(5)	(5)	5	5	-	-
2014	WECC		Electrical District #2	U.S.	2,473	2,473	-	-	2,464	2,464	-	-	(69)	(69)	77	77	-	-
2014	WECC		Electrical District #2 - Coolidge Generating Station	U.S.	121	121	-	-	121	121	-	-	(3)	(3)	4	4	-	-
2014	WECC		Silver State Energy - c/o Colorado River Commission of Nevada	U.S.	8,643	8,643	-	-	8,614	8,614	-	-	(240)	(240)	269	269	-	-

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					Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total	Total	US Total	Total	US Total	Canada Total	Mexico Total
2014	WECC		Southwest Transmission Cooperative, Inc.	U.S.	24,603	24,603	-	-	24,522	24,522	-	-	(684)	(684)	765	765	-	-
2014	WECC		U.S. Army Yuma Proving Ground	U.S.	292	292	-	-	291	291	-	-	(8)	(8)	9	9	-	-
2014	WECC		Wellton-Mohawk Irrigation & Drainage District	U.S.	37	37	-	-	37	37	-	-	(1)	(1)	1	1	-	-
2014	WECC		Western Area Power Administration-Desert Southwest Region	U.S.	53,633	53,633	-	-	53,456	53,456	-	-	(1,490)	(1,490)	1,668	1,668	-	-
TOTAL WECC					10,955,378	9,495,872	1,299,741	159,765	11,189,536	9,464,373	1,570,233	154,930	(263,867)	(263,867)	29,709	295,366	(270,492)	4,835
TOTAL ERO					57,081,445	51,785,828	5,135,852	159,765	58,520,445	51,614,044	6,751,471	154,930	(1,439,000)	(1,439,000)	0	1,610,784	(1,615,619)	4,835
<b>Summary by Regional Entity</b>																		
2014	FRCC				2,907,605	2,907,605	-	-	2,897,959	2,897,959	-	-	(80,795)	(80,795)	90,440	90,440	-	-
2014	MRO				3,754,043	3,120,012	634,031	-	3,724,505	3,109,662	614,843	-	(86,697)	(86,697)	116,235	97,047	19,188	-
2014	NPCC				6,919,438	3,717,358	3,202,080	-	8,271,421	3,705,026	4,566,395	-	(103,296)	(103,296)	(1,248,687)	115,627	(1,364,314)	-
2014	RF				11,830,363	11,830,363	-	-	11,791,120	11,791,120	-	-	(328,737)	(328,737)	367,980	367,980	-	-
2014	SERC				13,315,250	13,315,250	-	-	13,271,081	13,271,081	-	-	(369,998)	(369,998)	414,167	414,167	-	-
2014	SPP				2,982,867	2,982,867	-	-	2,972,972	2,972,972	-	-	(82,886)	(82,886)	92,781	92,781	-	-
2014	TRE				4,416,501	4,416,501	-	-	4,401,850	4,401,850	-	-	(122,724)	(122,724)	137,374	137,374	-	-
2014	WECC				10,955,378	9,495,872	1,299,741	159,765	11,189,536	9,464,373	1,570,233	154,930	(263,867)	(263,867)	29,709	295,366	(270,492)	4,835
Total					57,081,445	51,785,828	5,135,852	159,765	58,520,445	51,614,044	6,751,471	154,930	(1,439,000)	(1,439,000)	-	1,610,784	(1,615,619)	4,835





Data Year	Regional Entity	ID	Entity	Country	Total Regional Entity Assessments (Including WIRAB Assessments)				Regional Entity NEL Assessments				Penalty Sanctions - US Only		NPCC CORC Program			WECC Compliance Assessments (ex.AESO)				WIRAB Assessments				
					Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total	Total	US Total	Total	US Total	Canada Total	Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total	
2014	NPCC	1336	New England	U.S.	3,966,760	3,966,760	-	-	1,143,541	1,143,541	-	-	(29,665)	(29,665)	2,852,884	2,852,884	-									
2014	NPCC	1339	New York	U.S.	4,992,456	4,992,456	-	-	1,439,230	1,439,230	-	-	(37,335)	(37,335)	3,590,562	3,590,562	-									
2014	NPCC	1337	Ontario	Canada	2,012,733	-	2,012,733	-	1,257,099	-	1,257,099	-	-	-	755,634	-	755,634	-								
2014	NPCC	1341	Quebec	Canada	2,835,085	-	2,835,085	-	1,702,260	-	1,702,260	-	-	-	1,132,825	-	1,132,825	-								
2014	NPCC	1663	New Brunswick	Canada	296,844	-	296,844	-	125,464	-	125,464	-	-	-	171,380	-	171,380	-								
2014	NPCC	1340	Nova Scotia	Canada	245,318	-	245,318	-	98,407	-	98,407	-	-	-	146,911	-	146,911	-								
<b>TOTAL NPCC</b>					<b>14,349,196</b>	<b>8,959,216</b>	<b>5,389,980</b>	<b>-</b>	<b>5,766,000</b>	<b>2,582,770</b>	<b>3,183,230</b>	<b>-</b>	<b>(67,000)</b>	<b>(67,000)</b>	<b>8,650,196</b>	<b>6,443,446</b>	<b>2,206,750</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
2014	RF	1102	Cannelton Utilities	U.S.	352	352	-	-	366	366	-	-	(14)	(14)												
2014	RF	1106	City of Crosswell	U.S.	846	846	-	-	879	879	-	-	(33)	(33)												
2014	RF	1490	City of Lansing	U.S.	47,154	47,154	-	-	48,975	48,975	-	-	(1,822)	(1,822)												
2014	RF	1120	Cloverland Electric Cooperative	U.S.	18,169	18,169	-	-	18,871	18,871	-	-	(702)	(702)												
2014	RF	1122	CMS ERM Michigan LLC	U.S.	2,539	2,539	-	-	2,637	2,637	-	-	(98)	(98)												
2014	RF	1124	Constellation New Energy (MECS-CONS)	U.S.	19,458	19,458	-	-	20,210	20,210	-	-	(752)	(752)												
2014	RF	1123	Constellation New Energy (MECS-DET)	U.S.	21,161	21,161	-	-	21,979	21,979	-	-	(818)	(818)												
2014	RF	1126	Consumers Energy Company	U.S.	704,548	704,548	-	-	731,768	731,768	-	-	(27,220)	(27,220)												
2014	RF	1128	Detroit Edison Company	U.S.	965,933	965,933	-	-	1,003,252	1,003,252	-	-	(37,319)	(37,319)												
2014	RF	1166	Duke Energy Indiana	U.S.	651,640	651,640	-	-	676,816	676,816	-	-	(25,176)	(25,176)												
2014	RF	1135	Ferdinand Municipal Light & Water	U.S.	987	987	-	-	1,025	1,025	-	-	(38)	(38)												
2014	RF	1646	FirstEnergy Solutions (MECS-CONS)	U.S.	16,720	16,720	-	-	17,366	17,366	-	-	(646)	(646)												
2014	RF	1549	FirstEnergy Solutions (MECS-DET)	U.S.	46,121	46,121	-	-	47,903	47,903	-	-	(1,782)	(1,782)												
2014	RF	1612	Glacial Energy (MECS-DET)	U.S.	1,447	1,447	-	-	1,503	1,503	-	-	(56)	(56)												
2014	RF	1145	Hoosier Energy	U.S.	161,848	161,848	-	-	168,101	168,101	-	-	(6,253)	(6,253)												
2014	RF	1148	Indiana Municipal Power Agency (DUKE CIN)	U.S.	66,181	66,181	-	-	68,738	68,738	-	-	(2,557)	(2,557)												
2014	RF	1485	Indiana Municipal Power Agency (NIPSCO)	U.S.	9,155	9,155	-	-	9,509	9,509	-	-	(354)	(354)												
2014	RF	1486	Indiana Municipal Power Agency (SIGE)	U.S.	12,629	12,629	-	-	13,117	13,117	-	-	(488)	(488)												
2014	RF	1149	Indianapolis Power & Light Co.	U.S.	312,940	312,940	-	-	325,031	325,031	-	-	(12,090)	(12,090)												
2014	RF	1553	Integrus Energy Services (MECS-CONS)	U.S.	20,163	20,163	-	-	20,942	20,942	-	-	(779)	(779)												
2014	RF	1554	Integrus Energy Services (MECS-DET)	U.S.	16,567	16,567	-	-	17,208	17,208	-	-	(640)	(640)												
2014	RF	1666	Integrus Energy Services (WEPC)	U.S.	49,029	49,029	-	-	50,923	50,923	-	-	(1,894)	(1,894)												
2014	RF	1614	Just Energy (MECS-DET)	U.S.	776	776	-	-	806	806	-	-	(30)	(30)												
2014	RF	1154	Michigan Public Power Agency	U.S.	62,390	62,390	-	-	64,800	64,800	-	-	(2,410)	(2,410)												
2014	RF	1155	Michigan South Central Power Agency	U.S.	13,799	13,799	-	-	14,332	14,332	-	-	(533)	(533)												
2014	RF	1158	MidAmerican Energy Company Retail	U.S.	1,925	1,925	-	-	2,000	2,000	-	-	(74)	(74)												
2014	RF	1163	Northern Indiana Public Service Co.	U.S.	388,603	388,603	-	-	403,617	403,617	-	-	(15,014)	(15,014)												
2014	RF	1164	Ontonagon County Rural Electrification Assoc.	U.S.	617	617	-	-	640	640	-	-	(24)	(24)												
2014	RF	1265	PJM Interconnection, LLC	U.S.	14,844,058	14,844,058	-	-	15,417,556	15,417,556	-	-	(573,499)	(573,499)												
2014	RF	1172	Noble Americas Energy Solutions (MECS-CONS)	U.S.	11,913	11,913	-	-	12,373	12,373	-	-	(460)	(460)												
2014	RF	1171	Noble Americas Energy Solutions (MECS-DET)	U.S.	14,326	14,326	-	-	14,879	14,879	-	-	(553)	(553)												
2014	RF	1176	Direct Energy (Ika-Strategic Energy,LLC) (MECS-CONS)	U.S.	691	691	-	-	717	717	-	-	(27)	(27)												
2014	RF	1174	Direct Energy (Ika-Strategic Energy,LLC) (MECS-DET)	U.S.	8,774	8,774	-	-	9,113	9,113	-	-	(339)	(339)												
2014	RF	1581	Spartan Renewable Energy	U.S.	1,440	1,440	-	-	1,495	1,495	-	-	(56)	(56)												
2014	RF	1180	Thumb Electric Cooperative	U.S.	3,954	3,954	-	-	4,107	4,107	-	-	(153)	(153)												
2014	RF	1662	Ohio Valley Electric Corporation	U.S.	9,732	9,732	-	-	10,108	10,108	-	-	(376)	(376)												
2014	RF	1181	Vectren Energy Delivery of IN	U.S.	124,395	124,395	-	-	129,201	129,201	-	-	(4,806)	(4,806)												
2014	RF	1183	Village of Sebewaing	U.S.	901	901	-	-	936	936	-	-	(35)	(35)												
2014	RF	1184	Wabash Valley Power Association Inc. (DUKE CIN)	U.S.	61,196	61,196	-	-	63,560	63,560	-	-	(2,364)	(2,364)												
2014	RF	1488	Wabash Valley Power Association Inc.(NIPSCO)	U.S.	36,128	36,128	-	-	37,523	37,523	-	-	(1,396)	(1,396)												
2014	RF	1185	Wisconsin Electric Power Co.	U.S.	559,687	559,687	-	-	581,310	581,310	-	-	(21,623)	(21,623)												
2014	RF	1189	Wolverine Power Marketing Cooperative	U.S.	16,589	16,589	-	-	17,230	17,230	-	-	(641)	(641)												
2014	RF	1191	Wolverine Power Supply Cooperative	U.S.	56,762	56,762	-	-	58,955	58,955	-	-	(2,193)	(2,193)												
2014	RF	1190	Wolverine Power Marketing Cooperative(MECS-DET)	U.S.	2,968	2,968	-	-	3,082	3,082	-	-	(115)	(115)												
<b>TOTAL RELIABILITYFIRST</b>					<b>19,367,209</b>	<b>19,367,209</b>	<b>-</b>	<b>-</b>	<b>20,115,459</b>	<b>20,115,459</b>	<b>-</b>	<b>-</b>	<b>(748,250)</b>	<b>(748,250)</b>												
2014	SERC	1267	Alabama Municipal Electric Authority	U.S.	45,963	45,963	-	-	48,134	48,134	-	-	(2,171)	(2,171)												
2014	SERC	1268	Alabama Power Company	U.S.	803,105	803,105	-	-	841,035	841,035	-	-	(37,930)	(37,930)												
2014	SERC	1269	Ameren - Illinois	U.S.	574,051	574,051	-	-	601,163	601,163	-	-	(27,112)	(27,112)												
2014	SERC	1271	Ameren - Missouri	U.S.	559,824	559,824	-	-	586,264	586,264	-	-	(26,440)	(26,440)												
2014	SERC	1272	APGI - Yadkin Division	U.S.	234	234	-	-	245	245	-	-	(11)	(11)												
2014	SERC	1273	Associated Electric Cooperative Inc.	U.S.	262,325	262,325	-	-	274,715	274,715	-	-	(12,389)	(12,389)												
2014	SERC	1582	Beauregard Electric Cooperative, Inc.	U.S.	14,913	14,913	-	-	15,617	15,617	-	-	(704)	(704)												
2014	SERC	1462	Benton Utility District	U.S.																						





Data Year	Regional Entity	ID	Entity	Country	Total Regional Entity Assessments (Including WIRAB Assessments)				Regional Entity NEL Assessments				Penalty Sanctions - US Only		NPCC CORC Program			WECC Compliance Assessments (ex.AESO)				WIRAB Assessments			
					Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total	Total	US Total	Total	US Total	Canada Total	Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total
2014	WECC		Modern Electric Water Company	U.S.	7,282	7,282	-	-	7,308	7,308	-	-	(634)	(634)				274	274			335	335		
2014	WECC		Northern Lights, Inc.	U.S.	1,120	1,120	-	-	1,124	1,124	-	-	(98)	(98)				42	42			52	52		
2014	WECC		Pend Oreille County PUD No. 1	U.S.	28,603	28,603	-	-	28,703	28,703	-	-	(2,492)	(2,492)				1,075	1,075			1,317	1,317		
2014	WECC		PUD No. 1 of Astori County	U.S.	159	159	-	-	160	160	-	-	(14)	(14)				6	6			7	7		
2014	WECC		PUD No. 2 of Grant County	U.S.	3,013	3,013	-	-	3,024	3,024	-	-	(262)	(262)				113	113			139	139		
2014	WECC		U.S. BOR East Greenacres (Rathdrum)	U.S.	98	98	-	-	98	98	-	-	(9)	(9)				4	4			5	5		
2014	WECC		U.S. Bor Spokane Indian Development	U.S.	98	98	-	-	99	99	-	-	(9)	(9)				4	4			5	5		
2014	WECC		US Air Force Base, Fairchild	U.S.	1,527	1,527	-	-	1,532	1,532	-	-	(133)	(133)				57	57			70	70		
2014	WECC		City of Redding	U.S.	24,652	24,652	-	-	24,738	24,738	-	-	(2,148)	(2,148)				926	926			1,135	1,135		
2014	WECC		City of Roseville	U.S.	38,627	38,627	-	-	38,762	38,762	-	-	(3,365)	(3,365)				1,451	1,451			1,779	1,779		
2014	WECC		Modesto Irrigation District	U.S.	80,218	80,218	-	-	80,498	80,498	-	-	(6,988)	(6,988)				3,014	3,014			3,695	3,695		
2014	WECC		Sacramento Municipal Utility District	U.S.	349,464	349,464	-	-	350,681	350,681	-	-	(30,443)	(30,443)				13,130	13,130			16,096	16,096		
2014	WECC		Western Area Power Administration - Sierra Nevada Region	U.S.	41,022	41,022	-	-	41,165	41,165	-	-	(3,574)	(3,574)				1,541	1,541			1,889	1,889		
2014	WECC		Bonneville Power Administration	U.S.	1,692,538	1,692,538	-	-	1,698,433	1,698,433	-	-	(147,444)	(147,444)				63,592	63,592			77,956	77,956		
2014	WECC		California Independent System Operator	U.S.	7,178,746	7,178,746	-	-	7,203,750	7,203,750	-	-	(625,369)	(625,369)				269,721	269,721			330,644	330,644		
2014	WECC		El Paso Electric Company	U.S.	255,426	255,426	-	-	256,316	256,316	-	-	(22,251)	(22,251)				9,597	9,597			11,765	11,765		
2014	WECC		Bonneville Power Administration	U.S.	55,146	55,146	-	-	55,338	55,338	-	-	(4,804)	(4,804)				2,072	2,072			2,540	2,540		
2014	WECC		Idaho Power Company	U.S.	481,647	481,647	-	-	483,325	483,325	-	-	(41,958)	(41,958)				18,097	18,097			22,184	22,184		
2014	WECC		PacificCorp	U.S.	64	64	-	-	64	64	-	-	(6)	(6)				2	2			3	3		
2014	WECC		Imperial Irrigation District	U.S.	114,820	114,820	-	-	115,220	115,220	-	-	(10,002)	(10,002)				4,314	4,314			5,288	5,288		
2014	WECC		Los Angeles Department of Water and Power	U.S.	921,616	921,616	-	-	924,826	924,826	-	-	(80,286)	(80,286)				34,627	34,627			42,449	42,449		
2014	WECC		City of Henderson	U.S.	1,331	1,331	-	-	1,335	1,335	-	-	(116)	(116)				50	50			61	61		
2014	WECC		City of Las Vegas	U.S.	1,348	1,348	-	-	1,352	1,352	-	-	(117)	(117)				51	51			62	62		
2014	WECC		City of North Las Vegas	U.S.	600	600	-	-	602	602	-	-	(52)	(52)				23	23			28	28		
2014	WECC		Clark County Water Resources	U.S.	2,436	2,436	-	-	2,444	2,444	-	-	(212)	(212)				92	92			112	112		
2014	WECC		Colorado River Commission of Nevada	U.S.	28,624	28,624	-	-	28,723	28,723	-	-	(2,494)	(2,494)				1,075	1,075			1,318	1,318		
2014	WECC		Las Vegas Valley Water District	U.S.	2,969	2,969	-	-	2,979	2,979	-	-	(259)	(259)				112	112			137	137		
2014	WECC		Nevada Power Company dba NV Energy	U.S.	777,534	777,534	-	-	780,242	780,242	-	-	(67,734)	(67,734)				29,214	29,214			35,812	35,812		
2014	WECC		Overton Power District No. 5	U.S.	11,790	11,790	-	-	11,790	11,790	-	-	(1,024)	(1,024)				441	441			541	541		
2014	WECC		Southern Nevada Water Authority	U.S.	3,711	3,711	-	-	3,724	3,724	-	-	(323)	(323)				139	139			171	171		
2014	WECC		Bonneville Power Administration	U.S.	24,228	24,228	-	-	24,312	24,312	-	-	(2,111)	(2,111)				910	910			1,116	1,116		
2014	WECC		Central Montana Electric Power Cooperative	U.S.	12,965	12,965	-	-	13,010	13,010	-	-	(1,129)	(1,129)				487	487			597	597		
2014	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC	U.S.	287,917	287,917	-	-	288,920	288,920	-	-	(25,082)	(25,082)				10,818	10,818			13,261	13,261		
2014	WECC		Southern Montana Electric Generation & Transmission	U.S.	12,142	12,142	-	-	12,184	12,184	-	-	(1,058)	(1,058)				456	456			559	559		
2014	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	243	243	-	-	243	243	-	-	(21)	(21)				9	9			11	11		
2014	WECC		PacificCorp	U.S.	1,549,651	1,549,651	-	-	1,555,048	1,555,048	-	-	(134,996)	(134,996)				58,224	58,224			71,375	71,375		
2014	WECC		PacificCorp West (PACW)	U.S.	649,296	649,296	-	-	651,558	651,558	-	-	(56,563)	(56,563)				24,395	24,395			29,906	29,906		
2014	WECC		Bonneville Power Administration	U.S.	274	274	-	-	274	274	-	-	(24)	(24)				10	10			13	13		
2014	WECC		Canby Public Utility Board	U.S.	5,129	5,129	-	-	5,146	5,146	-	-	(447)	(447)				193	193			236	236		
2014	WECC		Columbia River PUD	U.S.	9,436	9,436	-	-	9,469	9,469	-	-	(822)	(822)				355	355			435	435		
2014	WECC		Noble Americas Energy Solutions, LLC	U.S.	53,391	53,391	-	-	53,576	53,576	-	-	(4,651)	(4,651)				2,006	2,006			2,459	2,459		
2014	WECC		PacificCorp	U.S.	69	69	-	-	69	69	-	-	(6)	(6)				3	3			3	3		
2014	WECC		Portland General Electric Company	U.S.	595,417	595,417	-	-	597,491	597,491	-	-	(51,869)	(51,869)				22,371	22,371			27,424	27,424		
2014	WECC		West Oregon Electric Cooperative, Inc.	U.S.	363	363	-	-	364	364	-	-	(32)	(32)				14	14			17	17		
2014	WECC		Arkansas River Power Authority (ARPA)	U.S.	8,116	8,116	-	-	8,144	8,144	-	-	(707)	(707)				305	305			374	374		
2014	WECC		Black Hills Colorado Electric	U.S.	60,786	60,786	-	-	60,998	60,998	-	-	(5,295)	(5,295)				2,284	2,284			2,800	2,800		
2014	WECC		Burlington	U.S.	2,160	2,160	-	-	2,167	2,167	-	-	(188)	(188)				81	81			99	99		
2014	WECC		Colorado Springs Utilities	U.S.	921	921	-	-	924	924	-	-	(80)	(80)				35	35			42	42		
2014	WECC		Grand Valley Power	U.S.	7,107	7,107	-	-	7,131	7,131	-	-	(619)	(619)				267	267			327	327		
2014	WECC		Holy Cross Energy	U.S.	34,855	34,855	-	-	34,976	34,976	-	-	(3,036)	(3,036)				1,310	1,310			1,605	1,605		
2014	WECC		Intermountain Rural Electric Association	U.S.	66,293	66,293	-	-	66,524	66,524	-	-	(5,775)	(5,775)				2,491	2,491			3,053	3,053		
2014	WECC		Municipal Energy Agency of Nebraska	U.S.	5,566	5,566	-	-	5,585	5,585	-	-	(485)	(485)				209	209			256	256		
2014	WECC		Platte River Power Authority	U.S.	99,282	99,282	-	-	99,627	99,627	-	-	(8,649)	(8,649)				3,730	3,730			4,573	4,573		
2014	WECC		Public Service Company of Colorado (Xcel)	U.S.	862,787	862,787	-	-	865,792	865,792	-	-	(75,161)	(75,161)				32,417	32,417			39,739	39,739		
2014	WECC		Raton Public Service	U.S.	1,751	1,751	-	-	1,758	1,758	-	-	(153)	(153)				66	66			81	81		
2014	WECC		Town of Center	U.S.	463	463	-	-	465	465	-	-	(40)	(40)				17	17			21	21		
2014	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability	U.S.	72,773	72,773	-	-	73,027	73,027	-	-	(6,340)	(6,340)				2,734	2,734			3,352	3,352		
2014	WECC		Western Area Power - Loveland, CO	U.S.	5,211	5,211	-	-	5,229	5,229	-	-	(454)	(454)				196	196			240	240		
2014	WECC		Yampa Valley Electric Association	U.S.	17,322	17,322	-	-	17,382	17,382	-	-	(1,509)	(1,509)				651	651			798	798		
2014	WECC		City of Aztec Electric Dept	U.S.	1,219	1,219	-	-	1,223	1,223	-	-	(106)	(106)				46	46			56	56		
2014	WECC		City of Gallup	U.S.	5,726	5,726	-	-	5,746	5,746	-	-	(499)	(499)				215	215			264	264		
2014	WECC		Jicarilla Apache Nation Power Authority	U.S.	446	446	-	-	448	448	-	-	(39)	(39)				17	17			21	21		
2014	WECC		Navajo Tribal Utility Authority	U.S.	8,247	8,247	-	-	8,276	8,276	-	-	(718)	(718)				310	310			380	380		
2014	WECC		Navapah Electric Cooperative, Inc.	U.S.	10,832	10,832	-	-	10,870	10,870	-	-	(944)	(944)				407	407			499	499		
2014	WECC		Public Service Company of New Mexico	U.S.	330,044	330,044	-	-	331,193	331,193	-	-	(28,751)	(28,751)				12,400	12,400			15,201	15,201		
2014	WECC		The Incorporated County of Los Alamos	U.S.	10,841	10,841	-	-	10,879	10,879	-	-	(944)	(944)				407	407			499	499		
2014	WECC		Tri-State Generation & Transmission Association, Inc.	U.S.	75,193	75,193	-	-	75,455	75,455	-	-	(6,550)	(6,550)				2,825	2,825			3,463	3,463		
2014	WECC		US Dept of Energy - Kirtland AFB	U.S.	12,482																				

Data Year	Regional Entity	ID	Entity	Country	Total Regional Entity Assessments (Including WIRAB Assessments)				Regional Entity NEL Assessments				Penalty Sanctions - US Only		NPCC CORC Program			WECC Compliance Assessments (ex.AESO)				WIRAB Assessments					
					Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total	Total	US Total	Total	US Total	Canada Total	Total	US Total	Canada Total	Mexico Total	Total	US Total	Canada Total	Mexico Total		
2014	WECC		City of Sumas	U.S.	964	964	-	-	967	967	-	-	(84)	(84)				36	36					44	44		
2014	WECC		Port of Seattle - Seattle-Tacoma International Airport	U.S.	4,422	4,422	-	-	4,438	4,438	-	-	(385)	(385)				166	166					204	204		
2014	WECC		PUD No. 1 of Kittitas County	U.S.	513	513	-	-	514	514	-	-	(45)	(45)				19	19					24	24		
2014	WECC		PUD No. 1 of Whatcom County	U.S.	166	166	-	-	166	166	-	-	(14)	(14)				6	6					8	8		
2014	WECC		Puget Sound Energy, Inc.	U.S.	742,728	742,728	-	-	745,315	745,315	-	-	(64,702)	(64,702)				27,906	27,906					34,209	34,209		
2014	WECC		Tanner Electric Cooperative	U.S.	3,021	3,021	-	-	3,032	3,032	-	-	(263)	(263)				114	114					139	139		
2014	WECC		Salt River Project	U.S.	904,685	904,685	-	-	907,836	907,836	-	-	(78,811)	(78,811)				33,991	33,991					41,669	41,669		
2014	WECC		Seattle City Light	U.S.	307,226	307,226	-	-	308,296	308,296	-	-	(26,764)	(26,764)				11,543	11,543					14,150	14,150		
2014	WECC		Barrick Goldstrike Mines Inc.	U.S.	34,732	34,732	-	-	34,853	34,853	-	-	(3,026)	(3,026)				1,305	1,305					1,600	1,600		
2014	WECC		City of Fallon	U.S.	3,984	3,984	-	-	3,998	3,998	-	-	(347)	(347)				150	150					184	184		
2014	WECC		Harney Electric Cooperative, Inc.	U.S.	3,829	3,829	-	-	3,842	3,842	-	-	(334)	(334)				144	144					176	176		
2014	WECC		Mt. Wheeler Power	U.S.	16,828	16,828	-	-	16,886	16,886	-	-	(1,466)	(1,466)				632	632					775	775		
2014	WECC		Sierra Pacific Power Company dba NV Energy	U.S.	284,805	284,805	-	-	285,797	285,797	-	-	(24,810)	(24,810)				10,701	10,701					13,118	13,118		
2014	WECC		Truckee Donner Public Utility District	U.S.	4,509	4,509	-	-	4,524	4,524	-	-	(393)	(393)				169	169					208	208		
2014	WECC		Wells Rural Electric Cooperative	U.S.	20,739	20,739	-	-	20,811	20,811	-	-	(1,807)	(1,807)				779	779					955	955		
2014	WECC		City of Tacoma DBA Tacoma Power	U.S.	152,749	152,749	-	-	153,281	153,281	-	-	(13,307)	(13,307)				5,739	5,739					7,035	7,035		
2014	WECC		Tucson Electric Power Company	U.S.	473,645	473,645	-	-	475,294	475,294	-	-	(41,261)	(41,261)				17,796	17,796					21,816	21,816		
2014	WECC		Merced Irrigation District	U.S.	14,840	14,840	-	-	14,892	14,892	-	-	(1,293)	(1,293)				558	558					684	684		
2014	WECC		Turlock Irrigation District	U.S.	66,675	66,675	-	-	66,907	66,907	-	-	(5,808)	(5,808)				2,505	2,505					3,071	3,071		
2014	WECC		Basin Electric Power Cooperative	U.S.	94,564	94,564	-	-	94,893	94,893	-	-	(8,238)	(8,238)				3,553	3,553					4,355	4,355		
2014	WECC		Black Hills Power/Cheyenne Light Fuel & Power	U.S.	106,691	106,691	-	-	107,062	107,062	-	-	(9,294)	(9,294)				4,009	4,009					4,914	4,914		
2014	WECC		Black Hills State University South Dakota	U.S.	600	600	-	-	602	602	-	-	(52)	(52)				23	23					28	28		
2014	WECC		City of Page	U.S.	2,706	2,706	-	-	2,716	2,716	-	-	(236)	(236)				102	102					125	125		
2014	WECC		Colorado Springs Utilities	U.S.	139,917	139,917	-	-	140,405	140,405	-	-	(12,189)	(12,189)				5,257	5,257					6,444	6,444		
2014	WECC		Deseret Generation & Transmission Cooperative	U.S.	3,509	3,509	-	-	3,521	3,521	-	-	(306)	(306)				132	132					162	162		
2014	WECC		City of Farmington	U.S.	34,101	34,101	-	-	34,220	34,220	-	-	(2,971)	(2,971)				1,281	1,281					1,571	1,571		
2014	WECC		Municipal Energy Agency of Nebraska	U.S.	20,913	20,913	-	-	20,986	20,986	-	-	(1,822)	(1,822)				786	786					963	963		
2014	WECC		Navajo Agricultural Products Industry (NAPI)	U.S.	273	273	-	-	274	274	-	-	(24)	(24)				10	10					13	13		
2014	WECC		Nebraska Public Power Marketing	U.S.	113	113	-	-	113	113	-	-	(10)	(10)				4	4					5	5		
2014	WECC		PacificCorp	U.S.	3,710	3,710	-	-	3,723	3,723	-	-	(323)	(323)				139	139					171	171		
2014	WECC		Public Service Company of Colorado (Xcel)	U.S.	1,140	1,140	-	-	1,144	1,144	-	-	(99)	(99)				43	43					53	53		
2014	WECC		Town of Fredonia	U.S.	338	338	-	-	339	339	-	-	(29)	(29)				13	13					16	16		
2014	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability	U.S.	224,693	224,693	-	-	225,476	225,476	-	-	(19,574)	(19,574)				8,442	8,442					10,349	10,349		
2014	WECC		Western Area Power - Loveland, CO	U.S.	71,644	71,644	-	-	71,894	71,894	-	-	(6,241)	(6,241)				2,692	2,692					3,300	3,300		
2014	WECC		Western Area Power Administration - CRSP	U.S.	54,051	54,051	-	-	54,240	54,240	-	-	(4,709)	(4,709)				2,031	2,031					2,490	2,490		
2014	WECC		Wyoming Municipal Power Agency	U.S.	8,725	8,725	-	-	8,756	8,756	-	-	(760)	(760)				328	328					402	402		
2014	WECC		Basin Electric Power Cooperative	U.S.	1,787	1,787	-	-	1,794	1,794	-	-	(156)	(156)				67	67					82	82		
2014	WECC		Bonneville Power Administration	U.S.	345	345	-	-	347	347	-	-	(30)	(30)				13	13					16	16		
2014	WECC		Central Montana Electric Power Cooperative	U.S.	1,958	1,958	-	-	1,965	1,965	-	-	(171)	(171)				74	74					90	90		
2014	WECC		Montana-Dakota Utilities Co.	U.S.	729	729	-	-	732	732	-	-	(64)	(64)				27	27					34	34		
2014	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC	U.S.	7,518	7,518	-	-	7,545	7,545	-	-	(655)	(655)				282	282					346	346		
2014	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	12,854	12,854	-	-	12,899	12,899	-	-	(1,120)	(1,120)				483	483					592	592		
2014	WECC		Aha Macav Power Service	U.S.	814	814	-	-	817	817	-	-	(71)	(71)				31	31					37	37		
2014	WECC		Bureau of Reclamation (Desalter) - c/o DSW EMMO	U.S.	19	19	-	-	19	19	-	-	(2)	(2)				1	1					1	1		
2014	WECC		Bureau of Reclamation (Wellfield) - c/o DSW EMMO	U.S.	212	212	-	-	213	213	-	-	(18)	(18)				8	8					10	10		
2014	WECC		Central Arizona Water Conservation District	U.S.	80,651	80,651	-	-	80,932	80,932	-	-	(7,026)	(7,026)				3,030	3,030					3,715	3,715		
2014	WECC		City of Mesa	U.S.	7,804	7,804	-	-	7,831	7,831	-	-	(680)	(680)				293	293					359	359		
2014	WECC		City of Needles	U.S.	897	897	-	-	900	900	-	-	(78)	(78)				34	34					41	41		
2014	WECC		Colorado River Agency-Bureau of Indian Affairs	U.S.	401	401	-	-	402	402	-	-	(35)	(35)				15	15					18	18		
2014	WECC		Electrical District #2	U.S.	5,930	5,930	-	-	5,950	5,950	-	-	(517)	(517)				223	223					273	273		
2014	WECC		Electrical District #2 - Coolidge Generating Station	U.S.	290	290	-	-	291	291	-	-	(25)	(25)				11	11					13	13		
2014	WECC		Silver State Energy - c/o Colorado River Commission of Nevada	U.S.	20,726	20,726	-	-	20,798	20,798	-	-	(1,805)	(1,805)				779	779					955	955		
2014	WECC		Southwest Transmission Cooperative, Inc.	U.S.	59,000	59,000	-	-	59,205	59,205	-	-	(5,140)	(5,140)				2,217	2,217					2,717	2,717		
2014	WECC		U.S. Army Yuma Proving Ground	U.S.	701	701	-	-	703	703	-	-	(61)	(61)				26	26					32	32		
2014	WECC																										

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2016 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 3**

**NORTHEAST POWER COORDINATING COUNCIL, INC.**

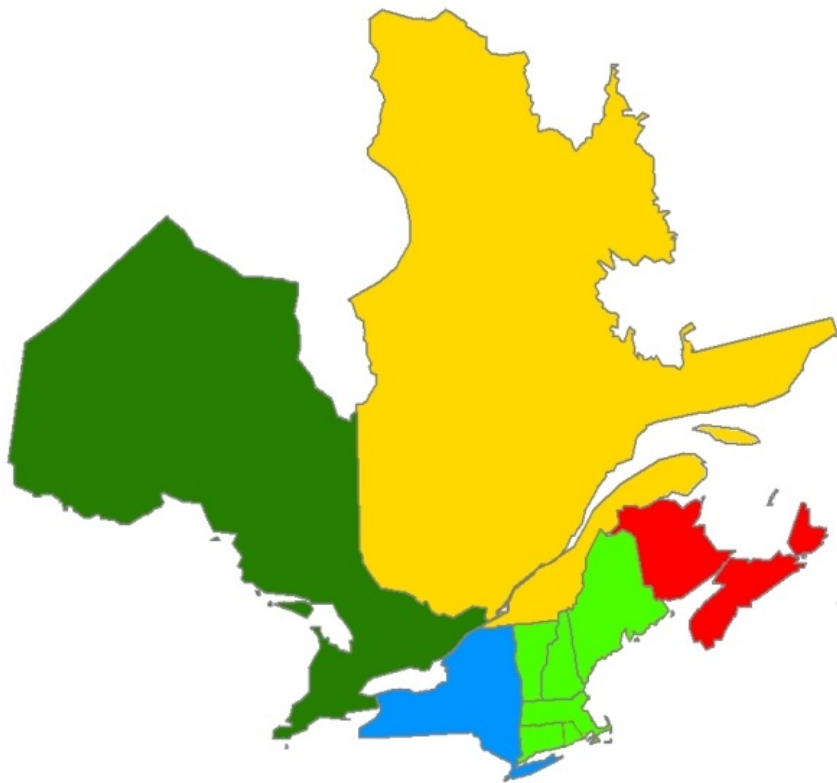
**PROPOSED 2016 BUSINESS PLAN AND BUDGET**



NORTHEAST POWER COORDINATING COUNCIL, INC.  
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## **Northeast Power Coordinating Council, Inc. (NPCC)**

### **2016 Business Plan and Budget**



**Approved by the  
NPCC Board of Directors  
at its June 25, 2015 Meeting and  
Resubmitted to NERC June 25, 2016**

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## Introduction

<b>Total NPCC Resources</b>				
(in whole dollars)				
	2016 Budget	U.S.	Canada	Mexico
Regional Entity Division FTEs	36.86			
Criteria Services Division FTEs	2.14			
<b>Total FTEs</b>	<b>39.0</b>			
Regional Entity Division Expenses	\$15,028,819			
Criteria Services Division Expenses	\$1,165,572			
<b>Total Expenses</b>	<b>\$16,194,391</b>			
Regional Entity Division Inc(Dec) in Fixed Assets	\$44,179			
Criteria Services Division Inc(Dec) in Fixed Assets	(\$8,506)			
<b>Total Inc(Dec) in Fixed Assets</b>	<b>\$35,673</b>			
Regional Entity Division Working Capital Requirement**	(\$592,801)			
Criteria Services Division Working Capital Requirement***	(\$96,525)			
<b>Total Working Capital Requirement</b>	<b>(\$689,326)</b>			
Total Regional Entity Division Funding Requirement	\$14,480,196			
Total Criteria Services Division Funding Requirement	\$1,060,542			
<b>Total Funding Requirement</b>	<b>\$15,540,738</b>			
<b>Regional Entity Division Assessments</b>	<b>\$14,349,196</b>	<b>\$8,959,216</b>	<b>\$5,389,980</b>	
<b>Regional Entity Division Assessments Percentage</b>	<b>100.0%</b>	<b>62.4%</b>	<b>37.6%</b>	
<b>Criteria Services Division Membership Fees</b>	<b>\$1,060,542</b>	<b>\$475,050</b>	<b>\$585,492</b>	
<b>Total NPCC Assessments &amp; Membership Fees</b>	<b>\$15,409,738</b>	<b>\$9,434,266</b>	<b>\$5,975,472</b>	
NEL	641,246,000	287,234,000	354,012,000	
NEL %	100%	44.79%	55.21%	

\*\* Refer to Table B-1 on page 67 in Section B.

\*\*\* Refer to the Reserve Analysis on page 86 in Section C.

## 2016 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 budget and assessments by 2.0% comprising a Regional Entity increase of 2.0% and a Criteria Services division increase of 2.4%. The proposed 2016 funding requirements will be satisfied by a Regional Entity division assessment of \$14,349,196 and Criteria Services division fees of \$1,060,542, for a total of \$15,409,738. This is an overall increase of 2.0% compared to the 2015 total assessments and fees of \$15,104,099. 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](http://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 2016 business plan, NPCC has included activities consistent with NERC initiatives including the enhancement of reliability assessments, risk-based registration, risk-based compliance monitoring and enforcement, expanded training for compliance auditing, and increased situation awareness.

It is imperative that NPCC maintain its ability to carry out delegated authorities and responsibilities. NPCC has a flat 2016 targeted staffing level of 39 power industry professionals and support personnel. Details of the 2016 business plans and budget for each program area are included in Section A for the Regional Entity division. The 2016 Regional Entity division schedules are shown in Section B. Section C details the 2016 criteria services division business plan and budget.

## **Membership and Governance**

NPCC monitors approximately 218 registered entities and some 487 functions in the Region for compliance with mandatory Reliability Standards. NPCC currently has approximately 79 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

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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 impact-based 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 consistent with their approved charters. 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 implementation of the Québec reliability standards compliance monitoring and enforcement program. 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 2009 Agreement). Under the terms of the 2009 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, NERC and NPCC are parties to the September 24, 2014, *Agreement on the Implementation of the Québec Reliability Standards Compliance Monitoring and Enforcement Program* (the 2014 Agreement). Through the 2014 Agreement, the Régie de l'énergie retains the services of NPCC to monitor and assess the compliance of registered entities in Québec with the reliability standards adopted by the Régie with respect to electric power transmission in Québec.

On April 1, 2015, the Québec Reliability Standards Compliance Monitoring and Enforcement Program ("QCMEP"), which was developed jointly by the Régie de l'énergie, NPCC and NERC, came into effect. Together, the 2014 Agreement and the QCMEP detail the procedures and program for monitoring and enforcing mandatory electric power transmission reliability standards in Québec. The Hydro-Québec companies, including Hydro-Québec TransÉnergie, Hydro-Québec Distribution and Hydro-Québec Production are subject to voluntary compliance monitoring and enforcement, including comprehensive audits by NPCC.

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 Contrôle des mouvements d'énergie (HQCME), a division of Hydro-Québec TransÉnergie, as the Reliability Coordinator for Québec. In accordance with its mandate and as recognized in the 2009 Agreement, it is this entity that is responsible for the filing with the Régie de l'énergie for approval of reliability standards in Québec. HQCME has filed for the approval of certain reliability standards and the Régie de l'énergie has made certain reliability standards mandatory in Québec and is continuing proceedings to make additional reliability standards mandatory in Québec.

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The Hydro-Québec companies, including Hydro-Québec TransÉnergie and Hydro-Québec Production have been subject to voluntarily compliance monitoring and enforcement, including comprehensive audits by NPCC. NPCC plans to continue to these voluntary compliance monitoring and enforcement activities for any standards that have not yet been declared in effect by the Régie de l'énergie. 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 (“NBEUB”) and NPCC entered into an Agreement dated October 1, 2013, whereby NPCC provides services for the NBEUB. The NBEUB is a not-for-profit 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 NBEUB 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 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 NBEUB 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 NBEUB 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 NBEUB in the New Brunswick specific registry. Additionally, NPCC is required to carry out the compliance monitoring and assessment for the NBEUB and assist and advise the enforcement for the NBEUB, including financial penalties. NPCC is also permitted to carry out or exercise any power in the implementing regulations that is specific to the NBEUB. 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 and enforcement activities with respect to the standards and forward any non-compliance information and recommendations to the NSUARB. The NSUARB maintains the final authority with respect to enforcement in Nova Scotia and based on the recommendations from NPCC, may determine whether a violation has occurred and, if so, what remedial measures or non-monetary 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 EAct 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.

## 2016 Key Assumptions and 2016 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 2016 through 2018 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 2016 Business Plan and Budget and may be referenced by the users of this document. NPCC activities that support ERO Enterprise Goals are detailed in each of the following program area sections.

## **2016 Overview of Regional Entity Division Cost Impacts**

The proposed Regional Entity division assessment of \$14,349,196 to support the budget is an increase of 2.0% compared to the 2015 assessment of \$14,068,878.

## **2015 Projections**

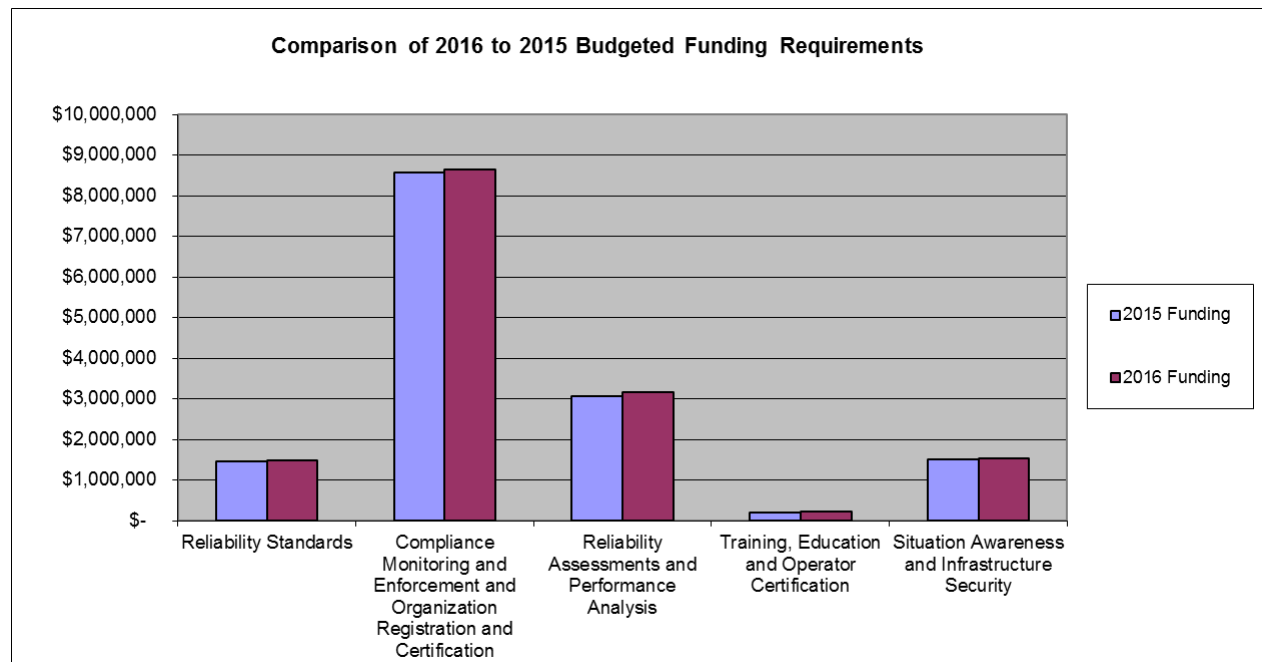
Current year projections are taken into consideration in development of the budget. Expenses are currently projected to be on budget in all areas or slightly under budget. 2015 Projections reflect expectations based on the first quarter variance report. It is anticipated that projections could change throughout 2015 and would be reflected in each subsequent quarter's variance report.



### Summary by Program

Program	Budget 2015	Projection 2015	Budget 2016	Variance	
				2016 Budget v 2015 Budget	Variance %
Reliability Standards	\$ 1,456,129	\$ 1,456,129	\$ 1,487,419	\$ 31,290	2.1%
Compliance Monitoring and Enforcement and Organization Registration and Certification	\$ 8,568,145	\$ 8,568,145	\$ 8,650,196	\$ 82,051	1.0%
Reliability Assessments and Performance Analysis	\$ 3,053,923	\$ 3,053,923	\$ 3,171,574	\$ 117,651	3.9%
Training, Education and Operator Certification	\$ 199,010	\$ 199,010	\$ 219,956	\$ 20,946	10.5%
Situation Awareness and Infrastructure Security	\$ 1,501,332	\$ 1,501,332	\$ 1,543,852	\$ 42,520	2.8%
<b>Total</b>	<b>\$ 14,778,539</b>	<b>\$ 14,778,539</b>	<b>\$ 15,072,998</b>	<b>\$ 294,458</b>	<b>2.0%</b>

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 FTEs by Program Area	Budget 2015	Projection 2015	Direct FTEs 2016 Budget	Shared FTEs <sup>1</sup> 2016 Budget	Total FTEs 2016 Budget	Change from 2015 Budget
<b>REGIONAL ENTITY DIVISION</b>						
<b>Operational Programs</b>						
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 Analysis	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
<b>Total FTEs Operational Programs</b>	<b>27.86</b>	<b>27.86</b>	<b>26.00</b>	<b>1.86</b>	<b>27.86</b>	<b>0.00</b>
<b>Administrative Programs</b>						
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
<b>Total FTEs Administrative Programs</b>	<b>9.00</b>	<b>9.00</b>	<b>9.00</b>	<b>0.00</b>	<b>9.00</b>	<b>0.00</b>
<b>Total FTEs</b>	<b>36.86</b>	<b>36.86</b>	<b>35.00</b>	<b>1.86</b>	<b>36.86</b>	<b>0.00</b>

<sup>1</sup>A shared FTE is defined as an employee who performs both Regional Entity and Criteria Services division functions.

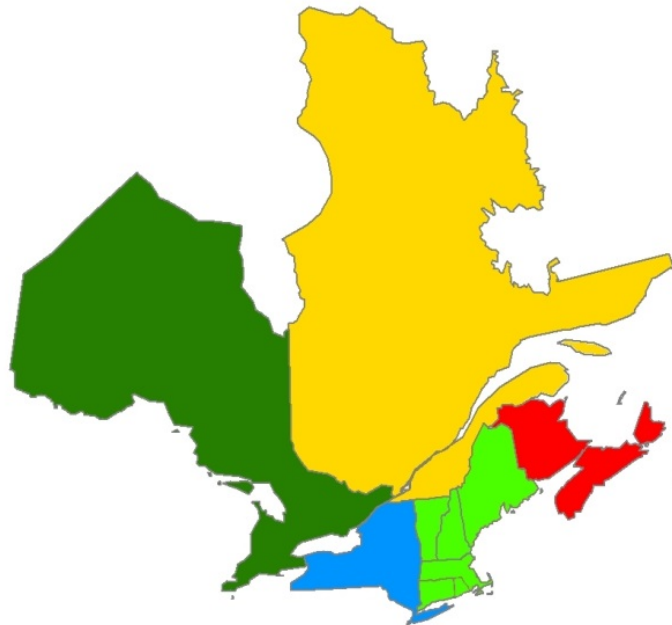
## 2015 Budget and Projection and 2016 Budget Comparisons

<b>Statement of Activities and Capital Expenditures 2015 Budget &amp; Projection, and 2016 Budget</b>						
<b>REGIONAL ENTITY DIVISION</b>						
				Variance <sup>(2)</sup> 2015 Projection v 2015 Budget Over(Under)		Variance 2016 Budget v 2015 Budget Over(Under)
	2015 Budget	2015 Projection			2016 Budget	
<b>Funding</b>						
<b>ERO Funding</b>						
ERO Assessments	\$ 14,068,878	\$ 14,068,878	\$ -		\$ 14,349,196	\$ 280,318
Penalty Sanctions <sup>(1)</sup>	290,500	290,500	-		67,000	(223,500)
<b>Total ERO Funding</b>	<b>\$ 14,359,378</b>	<b>\$ 14,359,378</b>	<b>\$ -</b>		<b>\$ 14,416,196</b>	<b>\$ 56,818</b>
Membership Dues	-	-	-		-	-
Testing Fees	-	-	-		-	-
Services & Software	-	-	-		-	-
Workshops	64,000	64,000	-		64,000	-
Interest	-	-	-		-	-
Miscellaneous	-	-	-		-	-
<b>Total Funding (A)</b>	<b>\$ 14,423,378</b>	<b>\$ 14,423,378</b>	<b>\$ -</b>		<b>\$ 14,480,196</b>	<b>\$ 56,818</b>
<b>Expenses</b>						
<b>Personnel Expenses</b>						
Salaries	\$ 6,195,425	\$ 6,195,425	\$ -		\$ 6,561,470	\$ 366,046
Payroll Taxes	387,209	387,209	-		399,057	11,848
Benefits	1,256,595	1,256,595	-		1,364,799	108,205
Retirement Costs	1,090,013	1,090,013	-		833,118	(256,895)
<b>Total Personnel Expenses</b>	<b>\$ 8,929,241</b>	<b>\$ 8,929,241</b>	<b>\$ -</b>		<b>\$ 9,158,445</b>	<b>\$ 229,204</b>
<b>Meeting Expenses</b>						
Meetings	\$ 365,000	\$ 365,000	\$ -		\$ 394,000	\$ 29,000
Travel	890,000	890,000	-		907,100	17,100
Conference Calls	45,000	45,000	-		47,000	2,000
<b>Total Meeting Expenses</b>	<b>\$ 1,300,000</b>	<b>\$ 1,300,000</b>	<b>\$ -</b>		<b>\$ 1,348,100</b>	<b>\$ 48,100</b>
<b>Operating Expenses</b>						
Consultants & Contracts	\$ 2,342,000	\$ 2,342,000	\$ -		\$ 2,223,500	\$ (118,500)
Office Rent	751,500	751,500	-		802,500	51,000
Office Costs	578,700	578,700	-		639,500	60,800
Professional Services	1,025,000	1,025,000	-		1,011,000	(14,000)
Computer & Equipment Leases	-	-	-		-	-
Miscellaneous	40,000	40,000	-		41,000	1,000
Depreciation	202,019	202,019	-		231,821	29,802
<b>Total Operating Expenses</b>	<b>\$ 4,939,219</b>	<b>\$ 4,939,219</b>	<b>\$ -</b>		<b>\$ 4,949,321</b>	<b>\$ 10,102</b>
<b>Total Direct Expenses</b>	<b>\$ 15,168,460</b>	<b>\$ 15,168,460</b>	<b>\$ -</b>		<b>\$ 15,455,866</b>	<b>\$ 287,406</b>
<b>Indirect Expenses</b>	<b>\$ (409,902)</b>	<b>\$ (409,902)</b>	<b>\$ -</b>		<b>\$ (427,047)</b>	<b>\$ (17,145)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>		<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 14,758,558</b>	<b>\$ 14,758,558</b>	<b>\$ -</b>		<b>\$ 15,028,819</b>	<b>\$ 270,260</b>
<b>Change in Assets</b>	<b>\$ (335,180)</b>	<b>\$ (335,180)</b>	<b>\$ -</b>		<b>\$ (548,622)</b>	<b>\$ (213,442)</b>
<b>Fixed Assets</b>						
Depreciation	\$ (202,019)	\$ (202,019)	\$ -		\$ (231,821)	\$ (29,802)
Computer & Software CapEx	222,000	222,000	-		276,000	54,000
Furniture & Fixtures CapEx	-	-	-		-	-
Equipment CapEx	-	-	-		-	-
Leasehold Improvements	-	-	-		-	-
Allocation of Fixed Assets	(0)	(0)	-		-	0
<b>Inc(Dec) in Fixed Assets (C)</b>	<b>19,981</b>	<b>19,981</b>	<b>-</b>		<b>44,179</b>	<b>24,198</b>
<b>TOTAL BUDGET (=B+C)</b>	<b>\$ 14,778,539</b>	<b>\$ 14,778,539</b>	<b>\$ -</b>		<b>\$ 15,072,998</b>	<b>\$ 294,458</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (355,161)</b>	<b>\$ (355,161)</b>	<b>\$ -</b>		<b>\$ (592,801)</b>	<b>\$ (237,640)</b>
<sup>(1)</sup> \$67,000 of penalty sanctions collected to date and prior to June 30, 2015.						
<sup>(2)</sup> 2015 Projections reflect expectations based on the 1st quarter statement of activities. It is anticipated that projections could change throughout 2015 and would be reflected in each subsequent quarter's statement of activities.						

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## Section A – Regional Entity Division 2016 Business Plan and Budget

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## Section A — 2016 Regional Entity Division Business Plan and Budget

### Reliability Standards Program

<b>Reliability Standards Program Resources</b>			
(in whole dollars)			
	2015 Budget	2016 Budget	Increase (Decrease)
Total FTEs	2.93	2.93	0.00
Direct Expenses	\$905,638	\$913,958	\$8,320
Indirect Expenses	\$561,221	\$584,695	\$23,475
Other Non-Operating Expenses	\$0	\$0	\$0
Inc(Dec) in Fixed Assets	(\$10,729)	(\$11,234)	(\$505)
Total Funding Requirement	\$1,456,129	\$1,487,419	\$31,290

### Program Scope and Functional Description

The NPCC Reliability Standards Program Area 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, the 2016 ERO Strategic Plan and 2016-2018 Shared Business Plan and Budget Assumptions. NPCC’s Reliability Standards Program Area provides 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 Reliability Standards Program Area is to support the development of ERO standards which establish “results-based” and effective 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, and maintains NPCC Regional Reliability Standards, ERO Standards Variances and ensures that NPCC’s Regional reliability criteria, contained in the form of Directories, are “not inconsistent with” any applicable NERC and Regional Reliability Standards, in accordance with the NERC Rules of Procedure. The NPCC Reliability Standards Program Area also supports and participates in the development, revision, and maintenance of NERC ERO Reliability Standards, initiates new Regional or continent-wide reliability standards through the NERC Standards Authorization Request (SAR) process when necessary, and provides a forum for the comprehensive review and improvement of existing and developing reliability standards. The NPCC Regional Standards Program Area also facilitates and assists with initiating SARs and Requests for Interpretation of ERO standards for the entities within the NPCC footprint. Many of the activities of the NPCC Reliability Standards Program Area are conducted and oversight provided by the NPCC Regional Standards Committee (RSC).

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, clear and concise quality standards in a timely and efficient manner.
- Promoting awareness by holding Regional workshops to provide outreach and conducting Regional Standards Committee meetings to inform and educate stakeholders on standards being developed, modified or maintained.
- Internally and informally providing training to staff to facilitate the transition of new standards to compliance monitoring and enforcement.
- Regional coordination activities with Standards Program Areas from other Regions.
- Developing and maintaining 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.
- Pursuing retirement of Regional Standards and promoting the reliability objectives of those Regional Standards into the NERC Continent-wide standards.
- Maintaining and abiding by the NPCC Regional Standard Processes Manual assuring compliance with all FERC filed documents with respect to standards development.

### **Funding Drivers and Reliability Benefits**

- Scope of the NPCC Regional Reliability Standards Program Area’s activities
  - Utilize NPCC RSC, Task Forces and Working Groups to comment on developing NERC Standards to ensure they are results-based
  - Develop processes for ensuring lessons learned from NPCC Event Analysis are evaluated for any gaps in standards or criteria
  - Review FERC Rulings, NOPRs, preliminary staff assessments, and FERC issued Directives to determine potential impacts on Northeastern North American reliability
  - Provide selective support for standard development activities as outlined in the NERC 2016-2017 Reliability Standards Development Plan
  - Participate in the Enhanced Periodic Review of NERC reliability standards
  - Provide a forum for all NPCC representatives on the NERC drafting teams to raise issues, socialize concepts, and receive feedback on the standards during the development process to enhance efficiency and timeliness of standards development
  - Provide NPCC Regional point of contact for the Reliability Issues Steering Committee (“RISC”) to provide emerging and existing BES reliability related risks and potential gaps in the existing NERC standards
- Number of Standards Projects
  - The level of standards development projects is expected to be similar for 2016 as it was for 2015.
  - Conducting outreach during standards’ development will continue in 2016 requiring more technical support, participation, and facilitation from NPCC staff. NERC has developed procedures and processes to allow it to revise standards in a more expeditious manner which may need clarification or address some deficiency.

- NPCC is assisting with the Project Management Oversight Subcommittee (PMOS) which is responsible for managing the development of NERC standards projects.
- Tracking Paragraph 81 Phase 2 retirement candidates, and conducting measured cost effectiveness in 2016
- NPCC is assisting the Standards Committee Process Subcommittee (SCPS) with standards related processes such as development of Drafting Team training materials, Quality Review, etc.
- Further resources required to assist NERC with the evaluation of the standards from a “cost effectiveness” perspective may be required.

### 2016 Key Assumptions

- Facilitate stakeholder review, comment on, and develop ballot recommendations or list of Regional issues, for all NERC Reliability Standards Projects under development or revision prior to the end of ballots
  - 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
  - Coordinate a comprehensive review of standards (enhanced periodic reviews)
  - Conduct training for performing Quality Reviews of standards at the Regional level
  - 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 northeast 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 or correct standards
- Monitor and participate in the drafting/revision of key NERC Reliability Standards-CIP, Protections Systems, Balancing Control Performance, and Frequency Response, etc.
  - 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
- Review reliability requirements of ERO and NPCC Regional Standards, NPCC Criteria and ensure consistency and alignment, remove redundancies, adopt Functional Model language
  - The unambiguous assignment of reliability requirements to specific functional entities benefits interconnection and continent-wide reliability
  - 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.
  - Participate in the continual improvement of the NERC standards development processes and initiatives such as the CEAP.
  - Contribute to the improvement of process related to NERC providing timely interpretations and tracking the status of in-process interpretations.
- Review all FERC orders and provincial regulations as they relate to the standards, their revision and adoption

- Northeast reliability benefits from careful analyses of regulatory and/or governmental orders or actions adopting standards to assure consistency in interpretation
- Review notices of proposed rulemakings (NOPRs) and coordinate and facilitate discussions related to reliability, compliance, and potential standards related actions
- Review final rulings that are issued and all FERC Directives for potential reliability related issues and opportunities to promote cost effective solutions
- Conduct and support regulatory and/or 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

### 2016 Goals and Key Deliverables

The Reliability Standards program goals and objectives for 2016 are grouped into six 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 NERC Standards Committee strategic initiatives to provide a “defense in depth,” comprehensive set of standards, participate in standards 10 year review activities, and address any outstanding FERC Directives.
- Support cost effectiveness, timely development, and quality of content attributes of new standards
- Participate in 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
- Assist NERC’s review of all industry requested Interpretations of standards
- NPCC staff along with NPCC solicited Regional drafting team volunteers, will participate in the drafting of ERO standards affecting or potentially affecting reliability in the Eastern Interconnection and provide support for review and development of comments and propose improvements
- NPCC and its members will review and coordinate potential member’s comments on FERC staff informal assessments as appropriate
- Participate in pre-ballot reviews of ERO standards and provide consensus recommendations of the NPCC Members to the NERC Standards Drafting Team (SDT) and provide a list of any unaddressed issues to allow the Members to cast a ballot based on Regional concerns
- Review and identify issues on FERC Notice of Proposed Rulemakings for any and all standards related issues as appropriate
- Coordinate and evaluate proposed standards utilizing NPCC’s 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 such as the North American Generator Forum and North American Transmission Forum
- Provide a forum for NPCC review of proposed and posted standards related documents from the NERC Critical Infrastructure Protection Committee (CIPC) and NPCC Task Force on Infrastructure Security and Technology (TFIST) such as but not limited to whitepapers and technical guidelines
- 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 CIP, Balancing Authority Controls, 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”.
- Provide continued insights 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, as needed, for conducting Quality Review activities on NERC continent-wide standards
- 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 applicable provincial governmental authorities for standards development activities as necessary to accomplish the ERO’s strategic goals and objectives

## 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.
- Conduct reviews for opportunities to include Regional Standards as Variances into the associated NERC continent wide standards as they individually undergo Enhanced Periodic Reviews

## 3) Standards Improvement

- Achieve NPCC Northeastern North American 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
- Support 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
- Identify any emerging interconnection wide reliability issues which may need standards solutions and forward to the NERC Reliability Issues Steering Committee.
- Identify opportunities to increase reliability through the revision of standards and their associated requirements

#### 4) 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

#### 5) Opportunities for Process Improvement

- Review the NERC Standards Development Process for possible revisions to consider expedited standards development and cost effectiveness analysis and maintaining the ANSI accreditation for standards development
- Evaluate continuing usefulness of the Single Portal on the NERC website to provide answers to stakeholders' questions.
- 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 and implement 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, 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 Functional Model Advisory Group activities to refine functions, tasks and responsibilities of applicable entities as needed
- Solicit and provide outreach to FERC in future revisions to the Regional Standard Processes Manual

#### 6) Communications

- Improve the 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 provided outreach, promote awareness and educate the industry on standards related activities
- Participate in consensus building activities and notification process(es) to engage stakeholders and provide notification to NPCC's subject matter experts 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

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- Promote the requirements and 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 ERO Enterprise.

The NPCC RSC works with the individual NERC standards developers to participate in outreach to the NPCC Region and coordination of issues at each NPCC RSC meeting. NPCC RSC also assists 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

NPCC will also participate in the development and revision of standards as directed by FERC, Canadian provincial and other regulatory and/or governmental authorities. NPCC will support these efforts as needed and potential revision of the NERC Interpretation process. The standards scheduled for revision will be delineated in the 2016 – 2018 NERC Reliability Standards Development Plan, and will be ready to be reviewed and revised throughout 2016.

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.

## **Resource Requirements**

### **Personnel**

- NPCC anticipates no need to hire additional personnel in this program area in 2016.

### **Consultants and contracts**

- Consultant and contractor costs are expected to decrease due to a full complement of staff and internal subject matter expertise to evaluate standards and criteria and fulfill all ERO delegated functions assigned to the Reliability Standards Program Area.

## Reliability Standards Program

Funding sources and related expenses for the Reliability Standards section of the 2016 business plan are shown in the table below. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

Statement of Activities and Capital Expenditures 2015 Budget & Projection, and 2016 Budget						
Reliability Standards						
	2015 Budget	2015 Projection	Variance 2015 Projection v 2015 Budget Over(Under)	2016 Budget	Variance 2016 Budget v 2015 Budget Over(Under)	
<b>Funding</b>						
<b>ERO Funding</b>						
ERO Assessments	\$ 1,425,578	\$ 1,425,578	\$ -	\$ 1,480,373	\$ 54,795	
Penalty Sanctions	30,552	30,552	-	7,046	(23,505)	
<b>Total ERO Funding</b>	<b>\$ 1,456,129</b>	<b>\$ 1,456,129</b>	<b>\$ -</b>	<b>\$ 1,487,419</b>	<b>\$ 31,290</b>	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops	-	-	-	-	-	
Interest	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
<b>Total Funding (A)</b>	<b>\$ 1,456,129</b>	<b>\$ 1,456,129</b>	<b>\$ -</b>	<b>\$ 1,487,419</b>	<b>\$ 31,290</b>	
<b>Expenses</b>						
<b>Personnel Expenses</b>						
Salaries	\$ 535,458	\$ 535,458	\$ -	\$ 548,639	\$ 13,181	
Payroll Taxes	31,420	31,420	-	32,229	809	
Benefits	93,684	93,684	-	116,140	22,456	
Retirement Costs	85,075	85,075	-	61,950	(23,125)	
<b>Total Personnel Expenses</b>	<b>\$ 745,638</b>	<b>\$ 745,638</b>	<b>\$ -</b>	<b>\$ 758,958</b>	<b>\$ 13,320</b>	
<b>Meeting Expenses</b>						
Meetings	\$ 20,000	\$ 20,000	\$ -	\$ 20,000	\$ -	
Travel	115,000	115,000	-	125,000	10,000	
Conference Calls	-	-	-	-	-	
<b>Total Meeting Expenses</b>	<b>\$ 135,000</b>	<b>\$ 135,000</b>	<b>\$ -</b>	<b>\$ 145,000</b>	<b>\$ 10,000</b>	
<b>Operating Expenses</b>						
Consultants & Contracts	\$ 25,000	\$ 25,000	\$ -	\$ 10,000	\$ (15,000)	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	-	-	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Depreciation	-	-	-	-	-	
<b>Total Operating Expenses</b>	<b>\$ 25,000</b>	<b>\$ 25,000</b>	<b>\$ -</b>	<b>\$ 10,000</b>	<b>\$ (15,000)</b>	
<b>Total Direct Expenses</b>	<b>\$ 905,638</b>	<b>\$ 905,638</b>	<b>\$ -</b>	<b>\$ 913,958</b>	<b>\$ 8,320</b>	
<b>Indirect Expenses</b>	<b>\$ 561,221</b>	<b>\$ 561,221</b>	<b>\$ -</b>	<b>\$ 584,695</b>	<b>\$ 23,475</b>	
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Expenses (B)</b>	<b>\$ 1,466,858</b>	<b>\$ 1,466,858</b>	<b>\$ -</b>	<b>\$ 1,498,654</b>	<b>\$ 31,795</b>	
<b>Change in Assets</b>	<b>\$ (10,729)</b>	<b>\$ (10,729)</b>	<b>\$ -</b>	<b>\$ (11,234)</b>	<b>\$ (505)</b>	
<b>Fixed Assets</b>						
Depreciation	\$ -	-	\$ -	-	\$ -	
Computer & Software CapEx	-	-	-	-	-	
Furniture & Fixtures CapEx	-	-	-	-	-	
Equipment CapEx	-	-	-	-	-	
Leasehold Improvements	-	-	-	-	-	
Allocation of Fixed Assets	(10,729)	(10,729)	-	(11,234)	(505)	
<b>Inc(Dec) in Fixed Assets (C)</b>	<b>(10,729)</b>	<b>(10,729)</b>	<b>-</b>	<b>(11,234)</b>	<b>(505)</b>	
<b>TOTAL BUDGET (=B+C)</b>	<b>\$ 1,456,129</b>	<b>\$ 1,456,129</b>	<b>\$ -</b>	<b>\$ 1,487,419</b>	<b>\$ 31,290</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ -</b>	<b>\$ 0</b>	<b>\$ (0)</b>	

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

<b>Compliance Monitoring and Enforcement and Organization Registration and Certification Program Resources</b>			
(in whole dollars)			
	2015 Budget	2016 Budget	Increase (Decrease)
Total FTEs	16.00	16.00	0.00
Direct Expenses	\$5,440,048	\$5,367,667	(\$72,381)
Indirect Expenses	\$3,064,686	\$3,192,876	\$128,190
Other Non-Operating Expenses	\$0	\$0	\$0
Inc(Dec) in Fixed Assets	\$63,410	\$89,653	\$26,242
<b>Total Funding Requirement</b>	<b>\$8,568,145</b>	<b>\$8,650,196</b>	<b>\$82,051</b>

### 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 risk-based 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 Monitoring Program; Compliance Enforcement; and Compliance Investigation:

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***Compliance Implementation, Registration and Certification***

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 guided 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 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 Monitoring Program***

The Compliance Monitoring Program is charged with conducting both on-site and off-site compliance audits, spot checks, and guided self-certifications of NERC Reliability Standards in accordance with the NERC Rules of Procedure and associated NPCC procedures developed under the NPCC Compliance Implementation Program. The program supports the ERO standards program area roles and responsibilities, the 2016 ERO Strategic Plan and 2016-2018 Shared Business Plan and Budget Assumptions. NPCC's Compliance Monitoring Area provides supporting activities by implementation of the risk-based Compliance Monitoring and Enforcement Program (CMEP); and by use of consistent compliance monitoring practices focused on higher reliability risks. NPCC also support the ERO Enterprise learning effort, as well as NERC oversight of program implementation. In collaboration with NERC, NPCC supports the CIP V5 transition plans and related training with anticipated expansion in the number of registered entities that require guidance. Compliance engagements are performed on the basis of risk to the BES. The Entity Reliability Assessment (ERA) group performs an Inherent Risk Assessment of entities scheduled for a CMEP engagement and forwards results to the manager of compliance to develop a schedule. The yearly schedule is produced consistent with Risk Assessment of registered entities and the desired frequency of CMEP engagements. 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 CMEP engagement may be in the form of an audit, spot check or guided self-certification and are led by qualified

senior NPCC Staff. Findings include the identification of any possible violations. Contents and processing of audit and spot check reports are in accordance with NERC directives for reporting. Specific lessons learned are factored into the program to promote continuous improvement and are presented at workshops in conjunction with the Compliance Implementation Program. An annual comprehensive spot-check program is established based on the NERC and NPCC Risk Elements, NPCC's assessment of follow-ups 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 Entity Risk Assessment***

The Entity Risk Assessment group conducts activity that is the basis for CMEP engagement scoping. They conduct an entity's Inherent Risk Assessment prior to scoping the compliance engagement to determine which CMEP tool will be used.

Entity risk also includes an assessment of an entity's Internal Controls which is used for further reducing requirements of the engagement. Internal Controls Evaluation (ICE) is voluntary and must be agreed to by the entity.

### ***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 utilizing a risk-based compliance enforcement approach, 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;
- d) Identifying and processing candidates for the FFT Process;
- e) Administer both the compliance exception process and the self-logging process for identified minimal violations;
- 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 the risk-based compliance enforcement model including :
  - a. Notifying the registered entity, within 60 days on average, whether a non-compliance will proceed through enforcement, be treated as a compliance exception or additional information is needed (“Triage”);
- i) Utilizing the Compliance Exception Process; and
- j) Utilizing the Self-Logging Process; and
- k) Develop and monitor a set of enforcement metrics that support NERC’s Strategic Plan and Oversight Program

### 2016 Key Assumptions and Cost Impacts

2015	Projected 2016
4 Large On-Site Audits	4 Large On-Site Audits
0 Medium On-Site Audits	0 Medium On-Site Audits
3 Small On-Site Audits	0 Small On-Site Audits
4 On-Site CIP Audits	9 On-Site CIP Audits
8 Large Off-Site Audits	5 Large Off-Site Audits
21 Medium Off-Site Audits	15 Medium Off-Site Audits
10 Small Off-Site Audits	10 Small Off-Site Audits
24 Off-Site CIP Audits	24 Off-Site CIP Audits
350 Spot Checks	150 Spot Checks
4 TFE Part B reviews	4 TFE Part B Reviews
200 Violations (Estimated)	100 Violations (Estimated)
Settlements Covering 100 Violations	Settlements Covering 100 Violations
2 Hearings (Unbudgeted)	2 Hearings (Unbudgeted)
1 CI (Estimated)	1 CI (Estimated)
2 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 four on-site reviews will be performed in 2016.



- Decrease in audit costs reflects Risk Assessment activity that is the basis for entity engagement scoping. The Risk Assessment includes an assessment of an entity's Internal Controls which is used for future reduction in engagement 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 2016 Business Plan projects no increases in Enforcement Processing activities over the 2015 Budget.
- The 2016 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)

### 2016 Goals and Key Deliverables

- Conduct 2016 CMEP consistent with a risk-based compliance monitoring and enforcement model, assessing Inherent Risk Assessment; conducting voluntary Internal Control Evaluation; and expanding the use of compliance exceptions and the self-logging program for disposition of minimal violations. The CMEP would monitor and enforce all applicable NERC Reliability Standards and applicable Regional Reliability Standards.
  - Continue to process identified violations as effectively as possible, including the timely identification of a violation and its disposition method (e.g. compliance exceptions; FFT; etc.), and the timely issuance of appropriate notification to the registered entity and NERC;
  - Continue to implement settlement process when applicable and send proper notifications to NERC and FERC and 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.
  - Conduct necessary Hearings related to resolution of outstanding disputes regarding violations and/or sanctions. Send results of hearings to NERC and FERC.
- Implement compliance responsibilities identified in the approved Canadian MOUs;
- Annual report to NERC and Régie on NPCC implementation of QCMEP
- Annual report to NERC and New Brunswick Electric Utility Board (NBEUB) on NPCC implementation of NB CMEP.
- Review and revise NPCC Compliance Registry based on FERC approved risk-based approach ;
- 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;
- 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;

- Provide required information to NERC on a timely basis including reporting of alleged violations and confirmed violations
- Track the progress of, report status of, and approve mitigation plans and mitigating activities;
- Conduct 2016 Compliance Engagement Schedule based on risk to the BES and number of registered entities and promote RAI initiatives by:
  - Utilizing the Audit Checklist and Auditor’s Handbook for all on-site and off-site audits
  - Preparing an Inherent Risk Assessment for all scheduled engagements and Internal Control Assessment for all entities that volunteer for one;
- On-site CIP audits may be combined with scheduled 2016 on-site audits;
- Assure that NPCC Staff is trained to conduct Entity Risk Assessment and CMEP engagements including CIP Compliance Audit training;
- 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;
- Continue to implement compliance reform consistent with a risk-based approach by being an integral participant in committees and workgroups that are involved in the development of polices related to the implementation of a risk-based compliance and enforcement model;
- Continue to expand the utilization of compliance exception and self-logging, as it relates to the processing of minimal violations;
- 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 registered entity sites to perform an assessment of their physical security, evaluate their cyber security and supply recommendations for improvements;
- Enhance the CDAA to expand its capabilities from both the registered entity perspective and the NPCC Compliance staff perspective;
- Conduct 2016 Compliance Workshops and interim information sessions for registered entities as necessary as a part of Training and Education program area.
- Continue to promote practices to enhance the benefits of the self-reporting of violations by the registered entity. This could include the emphasis on the benefits of a registered entity improving its internal processes used for identifying and submitting self-reports 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.

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.

**Resource Requirements****Personnel**

- NPCC anticipates no need to hire additional personnel in this program area in 2016.

**Consultants and contracts**

- In 2016, contractor costs will decrease due to the implementation of the risk-based approach in 2015. With a risk and performance based assessment of each registered entity, compliance engagements will transition to a periodicity more reflective of the risk profile of the entity such that some will result in audits which are more in-depth while others may have a reduced scope which will result in spot checks or guided self-certifications.

## 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 2016 business plan are shown in the table below. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

<b>Statement of Activities and Capital Expenditures</b>						
<b>2015 Budget &amp; Projection, and 2016 Budget</b>						
<b>Compliance Monitoring and Enforcement and Organization Registration and Certification</b>						
	2015	2015	Variance	2016	Variance	
	Budget	Projection	2015 Projection	Budget	2016 Budget	
			v 2015 Budget		v 2015 Budget	
			Over(Under)		Over(Under)	
<b>Funding</b>						
<b>ERO Funding</b>						
ERO Assessments	\$ 8,401,311	\$ 8,401,311	\$ -	\$ 8,611,718	\$ 210,407	
Penalty Sanctions	166,834	166,834	-	38,478	(128,356)	
<b>Total ERO Funding</b>	<b>\$ 8,568,145</b>	<b>\$ 8,568,145</b>	<b>\$ -</b>	<b>\$ 8,650,196</b>	<b>\$ 82,051</b>	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops	-	-	-	-	-	
Interest	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
<b>Total Funding (A)</b>	<b>\$ 8,568,145</b>	<b>\$ 8,568,145</b>	<b>\$ -</b>	<b>\$ 8,650,196</b>	<b>\$ 82,051</b>	
<b>Expenses</b>						
<b>Personnel Expenses</b>						
Salaries	\$ 2,393,832	\$ 2,393,832	\$ -	\$ 2,494,251	\$ 100,419	
Payroll Taxes	162,511	162,511	-	166,018	3,506	
Benefits	479,499	479,499	-	491,904	12,405	
Retirement Costs	284,206	284,206	-	268,494	(15,711)	
<b>Total Personnel Expenses</b>	<b>\$ 3,320,048</b>	<b>\$ 3,320,048</b>	<b>\$ -</b>	<b>\$ 3,420,667</b>	<b>\$ 100,619</b>	
<b>Meeting Expenses</b>						
Meetings	\$ 32,000	\$ 32,000	\$ -	\$ 32,000	\$ -	
Travel	360,000	360,000	-	355,000	(5,000)	
Conference Calls	-	-	-	-	-	
<b>Total Meeting Expenses</b>	<b>\$ 392,000</b>	<b>\$ 392,000</b>	<b>\$ -</b>	<b>\$ 387,000</b>	<b>\$ (5,000)</b>	
<b>Operating Expenses</b>						
Consultants & Contracts	\$ 1,728,000	\$ 1,728,000	\$ -	\$ 1,560,000	\$ (168,000)	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	-	-	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Depreciation	-	-	-	-	-	
<b>Total Operating Expenses</b>	<b>\$ 1,728,000</b>	<b>\$ 1,728,000</b>	<b>\$ -</b>	<b>\$ 1,560,000</b>	<b>\$ (168,000)</b>	
<b>Total Direct Expenses</b>	<b>\$ 5,440,048</b>	<b>\$ 5,440,048</b>	<b>\$ -</b>	<b>\$ 5,367,667</b>	<b>\$ (72,381)</b>	
<b>Indirect Expenses</b>	<b>\$ 3,064,686</b>	<b>\$ 3,064,686</b>	<b>\$ -</b>	<b>\$ 3,192,876</b>	<b>\$ 128,190</b>	
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Expenses (B)</b>	<b>\$ 8,504,735</b>	<b>\$ 8,504,735</b>	<b>\$ -</b>	<b>\$ 8,560,543</b>	<b>\$ 55,809</b>	
<b>Change in Assets</b>	<b>\$ 63,410</b>	<b>\$ 63,410</b>	<b>\$ -</b>	<b>\$ 89,653</b>	<b>\$ 26,242</b>	
<b>Fixed Assets</b>						
Depreciation	\$ -	\$ -	\$ -	\$ -	\$ -	
Computer & Software CapEx	122,000	122,000	-	151,000	29,000	
Furniture & Fixtures CapEx	-	-	-	-	-	
Equipment CapEx	-	-	-	-	-	
Leasehold Improvements	-	-	-	-	-	
Allocation of Fixed Assets	(58,590)	(58,590)	-	(61,347)	(2,758)	
<b>Inc(Dec) in Fixed Assets (C)</b>	<b>63,410</b>	<b>63,410</b>	<b>-</b>	<b>89,653</b>	<b>26,242</b>	
<b>TOTAL BUDGET (=B+C)</b>	<b>\$ 8,568,145</b>	<b>\$ 8,568,145</b>	<b>\$ -</b>	<b>\$ 8,650,196</b>	<b>\$ 82,051</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (0)</b>	<b>\$ (0)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (0)</b>	

## Reliability Assessment and Performance Analysis Program

<b>Reliability Assessment and Performance Analysis Program Resources</b>			
(in whole dollars)			
	2015 Budget	2016 Budget	Increase (Decrease)
Total FTEs	5.83	5.83	0.00
Direct Expenses	\$1,958,577	\$2,030,523	\$71,946
Indirect Expenses	\$1,116,695	\$1,163,404	\$46,709
Other Non-Operating Expenses	\$0	\$0	\$0
Inc(Dec) in Fixed Assets	(\$21,349)	(\$22,353)	(\$1,005)
Total Funding Requirement	\$3,053,923	\$3,171,574	\$117,651

### 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; and,
- Assessing the impact of planned transmission and resource additions or modifications on NPCC system reliability.

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, Regionally-specific reliability requirements are also recommended. NPCC promotes and conducts both inter-Area 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.

### 2016 Key Assumptions

Key focus area activities include:

Management of the Bulk Electric System exception process execution, technical validation of the definition and exception requests, self-determined notification submittals, periodic reviews of network changes affecting Bulk Electric System determinations, as reliability assessment and performance analysis, including:

- ✓ In collaboration with NERC, development and implementation of expanded and enhanced enterprise-based data collection and analysis systems and capabilities for performance analyses;
- ✓ Support of the integration of RAPA information systems for assessments and associated data requirements, with focus on independent and technically sound reliability

assessments supporting delivery of high quality reports (e.g., Long-Term Reliability Assessment, seasonal assessments, special or scenario assessments, and State of Reliability Report);

- In collaboration with NERC, development of assessment and performance analysis techniques as well as resource capabilities and tools, including probabilistic and scenario evaluations, which address the impacts of new technologies, changing resource or demand resource composition, and environmental related regulations or legislation;
- Support for ERO activities to identify key reliability risks and appropriate risk control projects designed to enhance reliability or mitigate risks.
- Support for the development of long-term sustainable Interconnection-based models that exhibit the accuracy and fidelity reflecting actual Bulk Power System reliability performance and dynamic conditions (these models will integrate needed elements that address reliability behavior of changing resource mix and technology of both generation and loads), including:
  - In collaboration with NERC, development and tracking of metrics that demonstrate the accuracy of the powerflow and dynamics models to replicate actual system conditions and reliability behavior;
  - Support for the compilation and of long-term sustainable interconnection-wide powerflow and dynamics cases under Reliability Standards MOD-032 and MOD-033;
  - In collaboration with NERC, development and tracking of metrics associated with Essential Reliability Services;

In addition, NPCC supports:

- Development of NERC's Reliability Assessment Data System (RADS), 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 probabilistic-based work products to supplement the NERC Long-Term Reliability Assessments;
- Coordination with event analysis, lesson learned and model validation activities. Specialized contractors may be used to complete detailed analysis to support model data collection and validation;
- Support of proposed NERC PMO IT deployments; and,
- Provide support and technical input for related BES risks identified by the NERC Reliability Issues Steering Committee (RISC) and Essential Reliability Services Task force.

### **Definition of the Bulk Electric System (BES)**

Implementation of the July 1, 2014 Bulk Electric System (BES) definition and Exception Process is not expected to significantly impact resources requirements in this program area for 2016.

### **Eastern Interconnection Reliability Assessment Group**

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 ERAG Steering Committees. The assessment-related activities indicated for the ERAG Management and Steering Committees below, are done in support of ERO Goal 4a. ("4a. Risks

are identified and prioritized based on reliability impacts, cost and practicality of assessments, projected resources, and emerging issues.”) 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). The base case compilation and development-related activities indicated for the ERAG Management and MMWG below, are done in support of ERO Goal 4d. (“4d. Reliability models and data accurately represent system behavior and are shared among stakeholders.”) NPCC participates in the ERAG activities as one of the six Eastern Interconnection Regional Entities.

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

### **Management Committee Activities**

- ✓ Oversee the steady state and dynamic simulation base case data compilation and development;
- ✓ Oversee ERAG Multi-Regional Modeling Working Group (MMWG) changes to the dynamics base cases;
- ✓ Oversee MMWG effort to use NERC Governor Survey and actual multiple frequency drop event analysis to 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 the ERAG 2016 Summer and 2016-2017 Winter Assessments, (NPCC) Assessments of anticipated inter-Regional, inter-Balancing Authority transfer limit conditions and sensitivities. Consider different assessment approaches to enhance the way assessments are conducted. Coordinate the effort with NERC Assessment Program staff;
- ✓ Develop ERAG Strategic Direction (i.e. anticipated new developments in MMWG process and system assessments); Resolve any issues with application of the ERAG MMWG non-disclosure agreement process so that base cases and assessments have sufficient protections in place for use and transmittal of confidential data and information; and
- ✓ Develop and approve the ERAG activity budgets.

### **Multi-Regional Modeling Working Group Items**

- ✓ Complete the steady state and dynamic simulation base case data compilation and development for the 2016 series of cases. This will include 12 steady state base cases and 8 dynamic simulation base cases;
- ✓ 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,
- ✓ Apply changes to the MMWG dynamics case so they are available for interconnection dynamics studies.
- ✓ Incorporate dispatch information into the future and seasonal ERAG MMWG base cases so that the dispatches are more closely aligned with economic dispatch practices;
- ✓ Determine how the Regional MMWG case development processes will change due to the use of the new web-based System Dynamics Data Base program;

- ✓ 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;
- ✓ Continue the effort to use NERC Governor Survey and actual multiple frequency drop event analysis to 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;
- ✓ Apply MMWG base case non-disclosure agreement process so that MMWG cases continue to have sufficient protections in place for use and transmittal of confidential data and information.
- ✓ Verify that procedures in the MMWG manual are followed;

### **System Assessments Items**

- ✓ Conduct the ERAG 2016 Summer and 2016-2017 Winter Assessments and prepare the ERAG Assessment Reports, including, the Assessments of anticipated inter-Regional, inter-Balancing Authority transfer limit conditions and sensitivities;
- ✓ Consider different assessment approaches to enhance the way assessments are conducted; and,
- ✓ Coordinate Assessment efforts with NERC Assessment Program staff to incorporate any risk-based or other approaches to supplement NERC Assessments.

### **NERC**

NPCC will provide the Regional perspective with judicious NPCC RAPA staff participation on selective NERC Planning and Operating Committees and key related NERC Subcommittees, Task Forces and Working Groups which could include:

- ✓ Reliability Assessment Data Working Group (RADWG);
- ✓ Protection System Mis-operations Task Force (PSMTF);
- ✓ Spare Equipment Database Task Force (SEDTF);
- ✓ Demand Response Availability Data System Working Group (DADSWG);
- ✓ Generating Availability Data System Working Group (GADSWG);
- ✓ Transmission Availability Data System Working Group (TADSWG);
- ✓ Model Validation Working Group (MVWG);
- ✓ Reliability Assessment Subcommittee (RAS) - Seasonal and Long-Term Reliability Assessments;
- ✓ System Analysis and Modeling Subcommittee (SAMS);
- ✓ Performance Analysis Subcommittee (PAS);
- ✓ Regional support and coordination of the NERC:
  - Generator Availability Data System (GADS);
  - Demand Availability Data System (DADS);
  - Transmission Availability Data System (TADS);
  - Spare Equipment Data Base System (SEDS);
- ✓ Incorporating any probabilistic reliability metrics required for the 2016 NERC Long-Term Reliability Assessment through the NPCC 2016 Long Range Adequacy Overview;
- ✓ Providing analytic support to ERO-RAPA group for the:
  - Analysis of Relay and Special Protection System mis-operations;
  - Regional coordination of data required for the calculation of metrics proposed by the NERC Reliability Metrics Working Group; and,
  - Other activities as directed by the ERO-Executive Management Group.



As well as:

- ✓ Producing the annual NPCC Load, Capacity, Energy, Fuels, and Transmission (LCEFT) Report
- ✓ 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;
- ✓ Processing BES Exception requests received through the BES Exception Process;
- ✓ Participating in on-going NERC analysis of the Eastern Interconnection Frequency Response;
- ✓ Developing NPCC guidelines for load modeling in system reliability studies;
- ✓ Conducting NPCC resource adequacy assessments addressing impacts of emerging reliability issues identified by NERC Essential Reliability Services Task Force (e.g., environmental requirements, gas-electric system interdependency, distributed generation, reactive support, etc.);
- ✓ Coordinating any resulting NPCC inter-Area reliability analyses required to assess the proposed integration of related large-scale renewable resource proposals from Regional activities;
- ✓ Completing the 2016 NERC Seasonal (and post Seasonal) Reliability Assessments; and,
- ✓ Completing the 2016 NERC Long-Term Reliability Assessment.
- ✓ Completing the 2016 NERC Probabilistic Assessment.

## 2016 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:

- Initiate reviews of NPCC Directory No. 1 “Design and Operation of the Bulk Power System”, of other NPCC standards, criteria, guidelines, and procedures related to planning, and of those documents which provide for the uniform implementation, interpretation and monitoring of compliance with standards, criteria, guidelines and procedures related to planning. These reviews will be coordinated with the other Task Forces, based on a schedule set forth in the NPCC Reliability Assessment Program (NRAP).
- Initiate reviews of any documents in response to lessons learned from major system events as relates to planning.
- Review the adequacy of the NPCC Areas to supply load in accordance with NPCC Directory No. 1 Appendix D, “Guidelines for Area Review of Resource Adequacy”, based on a schedule set forth in the NRAP.
- Coordinate the review of future Area plans for compliance with Directory No. 1 including an analysis of resource and transmission system additions, and the potential inter-Area effects of special protection systems, based on a schedule set forth in the NRAP. Specific projects, which could have an impact on the reliability of the NPCC bulk power system, may be reviewed outside of the set schedule.

- Coordinate the review of proposed new, modified and retired special protection systems in accordance with the NPCC Directory No 7, Appendix B, “Procedure for the Review of a Special Protection Systems”.
- Maintain close liaison and coordination with other task forces of the NPCC and the adjoining councils, with reference to system planning activities.
- Review the implications of various reliability related issues and make recommendations to the Reliability Coordinating Committee as appropriate.
- Encourage Area planning organizations to initiate inter-Area and interregional studies where improved reliability may be achievable through joint planning.
- Establish working groups, and approve the Scopes and Terms of Reference of such groups; initiate studies, including joint efforts with other task forces as appropriate, relative to the overall reliability of the planned bulk power system. Monitor the progress of these Working Groups.
- Assess requests by member systems for exclusions in accordance with the NPCC Directory No. 1, Appendix E, “Guidelines for Requesting Exclusions to Sections 5.4.1 (B) and 5.5.1 (B) of NPCC Directory No. 1 - Design and Operation of the Bulk Power System”, and make recommendations to the Reliability Coordinating Committee regarding such requests.
- Interface with and provide information to the North American Electric Reliability Corporation (NERC) committees, subcommittees and working groups, as required. Ensure NPCC Standards and Criteria are consistent with the NERC requirements as set forth in their Reliability Standards.
- Coordinate NPCC responses to related FERC and regulatory/governmental agencies. Ensure NPCC Standards and Criteria are reviewed with respect to approved governmental regulatory orders.
- Assess use of emerging technologies for consistency with current best reliability practices.
- Report to the Reliability Coordinating Committee on these and other matters as required.
- Meet the obligations required of the TFCP as detailed in the Criteria, Guides, and Procedures, and as set forth in the committee’s work plan.

### **Key TFCP Reliability Assessment and Performance Analysis Deliverables**

- ✓ Coordinate 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.
- ✓ Coordinate the development of additional Criteria as necessary, and track any new and developing standards through the Regional Standards Committee (RSC).
- ✓ Monitor the development of Bulk Power System (BPS) Regional Standard.
- ✓ Monitor the actions of the NERC Systems Analysis and Modeling Subcommittee (SAMS) in the areas of resource adequacy, system protection and system control.
- ✓ Oversee the Revised A-10 BPS Implementation Plan (dated December 1, 2009).
- ✓ Oversee and evaluate the annual NPCC Long Range Adequacy Overview (LRAO) and associated NERC ProbA review.
- ✓ Evaluate and approve Area Transmission Adequacy Reviews.
- ✓ Coordinate, monitor, review, and make recommendations on the retirement of existing in-service Special Protection Systems (SPS); and the implementation of proposed new or modified Special Protection Systems.

- ✓ Review the practice within the NPCC for the use of an SPS with input from the other task force groups.
- ✓ Monitor industry practices and make recommendations to NPCC on transmission adequacy standards related to intermittent generation such as wind or solar photovoltaic
- ✓ Coordinate to ensure that further UVLS analysis beyond the initial feasibility/screening study is completed according to schedules set by the RCC and the NERC Planning Committee.
- ✓ Evaluate and approve Area Resource Adequacy Assessment Reviews.
- ✓ Monitor the actions of applicable NERC Subcommittees in the areas of resource adequacy, system protection and system control.
- ✓ Review the load shape assumption used in NPCC Multi-Area Probabilistic Reliability Assessments.
- ✓ Monitor the developments in fuel supply, demand resources, energy efficiency, and conservation methods including all intermittent renewable resources, which can include embedded distributed resources.
- ✓ Monitor the process for the annual review of the NPCC Load, Capacity, Energy, Fuel and Transmission Report (LCEF&T).
- ✓ Facilitate Wide-Area Planning through participation in regional activities and coordinate inter-Area reliability analysis.
- ✓ Review Events Analysis Lessons Learned using the Events Analysis discussion/review template.

### **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.

TFSS activities 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:
  - improved techniques and models for power system simulation;
  - 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.

#### **Key TFSS Reliability Assessment and Performance Analysis Deliverables:**

- ✓ Review and recommend approval of Area Transmission Reviews, in accordance with the “Guidelines and Procedures for NPCC Area Transmission Reviews” (Appendix B of Directory No. 1), based on material presented by the Areas. These reviews will assess the impact of planned transmission and resource additions or modifications on system reliability, and determine the Area’s conformance with the Basic Criteria. Through the Area Transmission Reviews, re-evaluate the performance and classification of existing SPSs and Dynamic Control Systems as appropriate.
- ✓ Review and classify new and modified Special Protection Systems, in accordance with the Appendix B of NPCC Directory No. 7, “Special Protection Systems.”
- ✓ Implement A-10: a. Review and recommend approval of changes to the NPCC list of bulk power system elements, in accordance with the “*Classification of Bulk Power System Elements*” (Document A-10).
- ✓ Update the NPCC Bulk Power System (A-10) List.
- ✓ Through the SS-37 Working Group:
  - Annually develop a library of power flow base cases and associated dynamic models for use by authorized NPCC members. The models will also be used to support the development of the MMWG library of power flow and dynamic cases and databases for the Eastern Interconnection
    - i. Final NPCC power flow models developed each year in support of Multiregional Modeling Working Group (MMWG) schedule
    - ii. Final NPCC dynamic models developed each year in support of MMWG schedule

- On an as needed basis, update SS-37 Procedure Manual and other SS-37 documents including the Master Tie-line Data and Interchange Schedule
- On an as needed basis by TFSS, provide mid-term updates to the ten-year-out cases in the NPCC/MMWG Library
- ✓ Through the SS-38 Load Modeling Working Group (LMWG)
  - Investigate the use of dynamic load models for transient stability studies:
  - Following up on recommendation No. 3 of the SS-38 Load Modeling White Paper, the LMWG will further investigate the most appropriate load model for transient stability studies. The LMWG will:
    - Focus on load behavior during large system disturbances that involve large frequency, voltage, and angle excursions.
    - Determine the impact of load modeling variations on inter-area dynamics via large scale transient stability simulations. Continue investigation of the impact that dynamic load models may have on the transfer capability across the system.
    - Recommend whether to develop improved models for use in analysis of major disturbances or to develop appropriate models at the time of analyzing a disturbance.
  - Initiate a load survey to improve the accuracy of dynamic load model data:
    - The LMWG will initiate a load survey to follow up on recommendation #1 of the SS-38 Load Modeling White Paper. This survey will:
      - ✓ take into account various loading conditions (e.g. peak and light load);
      - ✓ obtain the breakdown of the customer types in each area (e.g. residential, commercial, industrial); and,
      - ✓ also obtain further breakdown on the load type within each customer type (e.g. air conditioner, heating, lighting load).
  - Investigate the use of load monitoring equipment to aid in the benchmarking of dynamic load models used in transient stability studies:
    - The LMWG will perform this task to address recommendation No. 2 of the SS-38 Load Modeling White Paper. Load monitoring devices will help benchmark the dynamic load models used for simulations. The LMWG will consider the following:
      - ✓ Investigate the feasibility and cost effectiveness of installing high-sampling load monitoring devices throughout the NPCC system. These devices include PQ meters, synchro-phasors and dynamic disturbance recorders.
      - ✓ The most ideal locations to install these devices.

### **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:**

- ✓ Assess proposed protection systems and special protection systems for compliance with Directory No. 4 and Directory No. 7
- ✓ Review and analyze the performance of protection systems of power system disturbances, lessons learned, 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). Issue recommendations for changes to NPCC Documents and lessons learned, as appropriate. Provide support to the NERC Event Analysis Coordinating Group as required.
- ✓ Provide formal review and response for all NERC lessons learned as requested by the RCC. Issue recommendations for changes to NPCC Documents, as appropriate.
- ✓ Participate or serve as lead Task Force in the implementation of applicable Regional Reliability Standards.
- ✓ Participate as required in the ongoing development and submission of NPCC inputs/comments into the development of protection related NERC Reliability Standards.
- ✓ Maintain ongoing log of protection relay failures
- ✓ Through the SP-7 Working Group, review protection system misoperations as they occurred in the NPCC Region and participate in providing the NPCC input for NERC Metric ALR4-1 (M-9) Correct Protection System Operations.
- ✓ 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.
- ✓ Oversee NPCC implementation of the new NERC SPS/RAS Operations/Misoperations Reporting Template.

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## 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.

### Key TFCO Reliability Assessment and Performance Analysis Deliverables:

- ✓ Review and analyze the performance of Simultaneous Activation of Reserve implementation following an event to enhance the Simultaneous Activation of Reserve process.
- ✓ Prepare and conduct the spring and autumn NPCC System Operator Seminars. Provide recommendations to enhance the programs.
- ✓ Implement training program changes as required by PER-005, "System Personnel Training."
- ✓ Develop and securely disseminate the annual compilation of "Facilities for Notification."
- ✓ Present to the TFCO an annual summary of operating tool failures and lessons learned for the preceding year.
- ✓ Complete an annual review of the RC area restoration plans.
- ✓ Support an annual enhanced, wide area restoration drill among the Reliability Coordinator areas of NPCC and their neighboring Reliability Coordinators.
- ✓ Assess the dependency of successful system operations on current telecommunication systems.
- ✓ Conduct the CO-12 seasonal NPCC Reliability Assessment and incorporate the multi-area probabilistic simulation results developed by NPCC Working Group CP-8 in each assessment. Coordinate the results of the CO-12 assessments with the corresponding NERC RAS Seasonal Assessments and provide NPCC input into the corresponding NERC RAS Seasonal Assessment.
- ✓ Provide assistance to the NERC event analysis process. Evaluate the operational applicability of Lessons Learned from the NERC event analysis process.

**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.

**Resource Requirements****Personnel**

- NPCC anticipates no need to hire additional personnel in this program area in 2016.

**Consultants and contracts**

- Increase in RAPA consultant costs associated with supporting proposed Regional expanded assessment and performance analyses. A portion of the increase is offset by a slight decrease in consultant involvement related to expected processing of BES Exception Requests and Self-Determined Notifications.



## Reliability Assessment and Performance Analysis Program

Funding sources and related expenses for the Reliability Assessment and Performance Analysis section of the 2016 business plan are shown in the table below. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

Statement of Activities and Capital Expenditures						
2015 Budget & Projection, and 2016 Budget						
Reliability Assessment and Performance Analysis						
	2015	2015	Variance	2016	Variance	
	Budget	Projection	2015 Projection	Budget	2016 Budget	
			v 2015 Budget		v 2015 Budget	
			Over(Under)		Over(Under)	
<b>Funding</b>						
<b>ERO Funding</b>						
ERO Assessments	\$ 2,993,133	\$ 2,993,133	\$ -	\$ 3,157,554	\$ 164,420	
Penalty Sanctions	60,790	60,790	-	14,020	(46,770)	
<b>Total ERO Funding</b>	<b>\$ 3,053,923</b>	<b>\$ 3,053,923</b>	<b>\$ -</b>	<b>\$ 3,171,574</b>	<b>\$ 117,651</b>	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops	-	-	-	-	-	
Interest	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
<b>Total Funding (A)</b>	<b>\$ 3,053,923</b>	<b>\$ 3,053,923</b>	<b>\$ -</b>	<b>\$ 3,171,574</b>	<b>\$ 117,651</b>	
<b>Expenses</b>						
<b>Personnel Expenses</b>						
Salaries	\$ 937,098	\$ 937,098	\$ -	\$ 1,031,149	\$ 94,050	
Payroll Taxes	61,387	61,387	-	64,284	2,897	
Benefits	196,252	196,252	-	212,345	16,094	
Retirement Costs	172,840	172,840	-	116,395	(56,444)	
<b>Total Personnel Expenses</b>	<b>\$ 1,367,577</b>	<b>\$ 1,367,577</b>	<b>\$ -</b>	<b>\$ 1,424,173</b>	<b>\$ 56,596</b>	
<b>Meeting Expenses</b>						
Meetings	\$ 41,000	\$ 41,000	\$ -	\$ 45,000	\$ 4,000	
Travel	185,000	185,000	-	186,850	1,850	
Conference Calls	-	-	-	-	-	
<b>Total Meeting Expenses</b>	<b>\$ 226,000</b>	<b>\$ 226,000</b>	<b>\$ -</b>	<b>\$ 231,850</b>	<b>\$ 5,850</b>	
<b>Operating Expenses</b>						
Consultants & Contracts	\$ 365,000	\$ 365,000	\$ -	\$ 374,500	\$ 9,500	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	-	-	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Depreciation	-	-	-	-	-	
<b>Total Operating Expenses</b>	<b>\$ 365,000</b>	<b>\$ 365,000</b>	<b>\$ -</b>	<b>\$ 374,500</b>	<b>\$ 9,500</b>	
<b>Total Direct Expenses</b>	<b>\$ 1,958,577</b>	<b>\$ 1,958,577</b>	<b>\$ -</b>	<b>\$ 2,030,523</b>	<b>\$ 71,946</b>	
<b>Indirect Expenses</b>	<b>\$ 1,116,695</b>	<b>\$ 1,116,695</b>	<b>\$ -</b>	<b>\$ 1,163,404</b>	<b>\$ 46,709</b>	
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Expenses (B)</b>	<b>\$ 3,075,272</b>	<b>\$ 3,075,272</b>	<b>\$ -</b>	<b>\$ 3,193,927</b>	<b>\$ 118,656</b>	
<b>Change in Assets</b>	<b>\$ (21,349)</b>	<b>\$ (21,349)</b>	<b>\$ -</b>	<b>\$ (22,353)</b>	<b>\$ (1,005)</b>	
<b>Fixed Assets</b>						
Depreciation	\$ -	\$ -	\$ -	\$ -	\$ -	
Computer & Software CapEx	-	-	-	-	-	
Furniture & Fixtures CapEx	-	-	-	-	-	
Equipment CapEx	-	-	-	-	-	
Leasehold Improvements	-	-	-	-	-	
Allocation of Fixed Assets	(21,349)	(21,349)	-	(22,353)	(1,005)	
<b>Inc(Dec) in Fixed Assets (C)</b>	<b>(21,349)</b>	<b>(21,349)</b>	<b>-</b>	<b>(22,353)</b>	<b>(1,005)</b>	
<b>TOTAL BUDGET (=B+C)</b>	<b>3,053,923</b>	<b>3,053,923</b>	<b>-</b>	<b>3,171,574</b>	<b>117,651</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ -</b>	<b>\$ 0</b>	<b>\$ (0)</b>	

## Training, Education, and Operator Certification Program

<b>Training, Education, and Operator Certification Program Resources</b>			
(in whole dollars)			
	2015 Budget	2016 Budget	Increase (Decrease)
Total FTEs	0.10	0.10	0.00
Direct Expenses	\$180,222	\$200,384	\$20,162
Indirect Expenses	\$19,154	\$19,955	\$801
Other Non-Operating Expenses	\$0	\$0	\$0
Inc(Dec) in Fixed Assets	(\$366)	(\$383)	(\$17)
Total Funding Requirement	\$199,010	\$219,956	\$20,946

### 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. NPCC staff training and development is incorporated within each respective program area.

### Training Program Background and Description

This NPCC Program establishes and coordinates training for system operators relating to inter-Reliability Coordinator area matters, criteria, terminology, standards and operating procedures and instructions. It includes development and execution training seminars, held twice yearly, at which: 1) potential operational problems for the coming season are discussed, 2) the implementation of NPCC Directories and NERC Standards are discussed, 3) significant disturbances are reviewed for lessons learned and 4) 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 (RC) areas and the Nova Scotia Balancing Authority (BA) area.

This Program also provides for: 1) sharing of existing training techniques and methods, 2) evaluation of new techniques and training aids as they become available; 3) opportunities to consolidate training among the NPCC RCs and BAs, which includes opportunities to share training material and training sessions and 4) exchange of information on internal methods of system operator selection and training. The training activities indicated below are done in support of ERG Goal 5b. (“5b. The ERO Enterprise acquires, engages, and retains highly qualified talent suited to the mission.”)

### Funding Drivers and Reliability Benefits

- Provide two high-quality continuing education seminars for system operators
  - System operators participating in the Seminars: 1) get exposure to NPCC issues and current industry operations topics, 2) review recent NPCC or major external disturbances, 3) discuss projected conditions for the coming summer or winter peak season, 4) review key operations-related content in NPCC Directories and NERC Standards, and 5) participate in hands on “table top exercises” pertaining

- to system operation practices. PJM system operators and trainers are also invited to and normally attend and participate in these seminars.
- Seminar attendees also receive Continuing Education Hours (CEHs) and operator trainers from each RC / BA area utilizes the seminar content by including it in their internal training programs to provide CEHs to all system operators
  - The seminars help to improve system operation coordination through better contact among operators
- Continually 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.
  - Enhance the system operator's awareness and knowledge of the standards, criteria and procedures they apply in real time operation.
  - Provide more sharing of new training approaches, exchange of information on internal methods of system operator selection, training material and training sessions.
    - Enhance efficiency and cost savings in the training programs in the NPCC RC / BA areas
  - Provide a forum among NPCC 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 any changes needed to existing system operator training programs due to PER-005-2 requirements is 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.
  - NPCC will conduct two Standards and Compliance workshops in 2016, 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).

### 2016 Key Assumptions

NPCC regularly conducts seminars as well as Spring and Fall Standards and Compliance workshops 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-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 RC/BA 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.

**2016 Goals and Key Deliverables**

- Prepare and conduct the 2016 spring and autumn NPCC System Operator Seminars
- 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, to meet the requirements generated by PER-005-2, as necessary.
- 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.

**Resource Requirements****Personnel**

- NPCC anticipates no need to hire additional personnel in this program area in 2016.

## Training, Education, and Operator Certification Program

Funding sources and related expenses for the training, education, and operator certification section of the 2016 business plan are shown in the table below. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

Statement of Activities and Capital Expenditures						
2015 Budget & Projection, and 2016 Budget						
Training, Education, and Operator Certification						
	2015	2015	Variance	2016	Variance	
	Budget	Projection	2015 Projection v 2015 Budget Over(Under)	Budget	2016 Budget v 2015 Budget Over(Under)	
<b>Funding</b>						
<b>ERO Funding</b>						
ERO Assessments	\$ 133,967	\$ 133,967	\$ -	\$ 155,715	\$ 21,748	
Penalty Sanctions	1,043	1,043	-	240	(802)	
<b>Total ERO Funding</b>	<b>\$ 135,010</b>	<b>\$ 135,010</b>	<b>\$ -</b>	<b>\$ 155,956</b>	<b>\$ 20,946</b>	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops	64,000	64,000	-	64,000	-	
Interest	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
<b>Total Funding (A)</b>	<b>\$ 199,010</b>	<b>\$ 199,010</b>	<b>\$ -</b>	<b>\$ 219,956</b>	<b>\$ 20,946</b>	
<b>Expenses</b>						
<b>Personnel Expenses</b>						
Salaries	\$ 18,460	\$ 18,460	\$ -	\$ 19,073	\$ 613	
Payroll Taxes	1,274	1,274	-	1,311	37	
Benefits	4,052	4,052	-	5,452	1,400	
Retirement Costs	4,436	4,436	-	2,397	(2,038)	
<b>Total Personnel Expenses</b>	<b>\$ 28,222</b>	<b>\$ 28,222</b>	<b>\$ -</b>	<b>\$ 28,234</b>	<b>\$ 12</b>	
<b>Meeting Expenses</b>						
Meetings	\$ 137,000	\$ 137,000	\$ -	\$ 157,000	\$ 20,000	
Travel	15,000	15,000	-	15,150	150	
Conference Calls	-	-	-	-	-	
<b>Total Meeting Expenses</b>	<b>\$ 152,000</b>	<b>\$ 152,000</b>	<b>\$ -</b>	<b>\$ 172,150</b>	<b>\$ 20,150</b>	
<b>Operating Expenses</b>						
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	-	-	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Depreciation	-	-	-	-	-	
<b>Total Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Direct Expenses</b>	<b>\$ 180,222</b>	<b>\$ 180,222</b>	<b>\$ -</b>	<b>\$ 200,384</b>	<b>\$ 20,162</b>	
<b>Indirect Expenses</b>	<b>\$ 19,154</b>	<b>\$ 19,154</b>	<b>\$ -</b>	<b>\$ 19,955</b>	<b>\$ 801</b>	
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Expenses (B)</b>	<b>\$ 199,376</b>	<b>\$ 199,376</b>	<b>\$ -</b>	<b>\$ 220,339</b>	<b>\$ 20,964</b>	
<b>Change in Assets</b>	<b>\$ (366)</b>	<b>\$ (366)</b>	<b>\$ -</b>	<b>\$ (383)</b>	<b>\$ (17)</b>	
<b>Fixed Assets</b>						
Depreciation	\$ -	-	\$ -	\$ -	\$ -	
Computer & Software CapEx	-	-	-	-	-	
Furniture & Fixtures CapEx	-	-	-	-	-	
Equipment CapEx	-	-	-	-	-	
Leasehold Improvements	-	-	-	-	-	
Allocation of Fixed Assets	(366)	(366)	-	(383)	(17)	
<b>Inc(Dec) in Fixed Assets (C)</b>	<b>(366)</b>	<b>(366)</b>	<b>-</b>	<b>(383)</b>	<b>(17)</b>	
<b>TOTAL BUDGET (=B+C)</b>	<b>199,010</b>	<b>199,010</b>	<b>-</b>	<b>219,956</b>	<b>20,946</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (0)</b>	<b>\$ (0)</b>	<b>\$ -</b>	<b>\$ (0)</b>	<b>\$ 0</b>	

## Situation Awareness and Infrastructure Security Program

<b>Situation Awareness and Infrastructure Security Program Resources</b>			
(in whole dollars)			
	2015 Budget	2016 Budget	Increase (Decrease)
Total FTEs	3.00	3.00	0.00
Direct Expenses	\$937,689	\$956,690	\$19,002
Indirect Expenses	\$574,629	\$598,664	\$24,036
Other Non-Operating Expenses	\$0	\$0	\$0
Inc(Dec) in Fixed Assets	(\$10,986)	(\$11,503)	(\$517)
Total Funding Requirement	\$1,501,332	\$1,543,852	\$42,520

### 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

NERC and the industry follow 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 those identified through NERC Reliability Standard EOP-004-2, "Event Reporting," 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;
- 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 will 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 risks 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 risks through the assessment of 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.

### Situational Awareness

#### Operational Status

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 Contrôle de mouvements d'énergie (HQCME, a division of 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

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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 also monitors the status of the bulk power system through the NERC Situational Awareness-FERC, 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 levels of 230 kV and above are displayed, and the tool provides the ability to “drill down” to detailed bus information, including generation outputs and bus voltages.

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), permitting continued cross-border voice communications 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 2016 critical infrastructure goals and objectives, supporting ERO Goal 4.c.:



- 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
- Coordinate Cyber Protection activities, discussions and hold workshops as may be required to maintain Cyber Security of BES Cyber Assets.
- Provide continued support and participation in NERC's Critical Infrastructure Protection Committee (CIPC)
- 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
- Regarding the Cross Border Emergency Telecommunications recommendation
  - Continue to annually report to RCC on this testing
  - Continue to support CO-8's monthly testing

### **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
- Assisting in the development of real time operating tools assuring cyber security concerns are addressed

### **2016 Key Assumptions**

- The monitoring of Lessons Learned will be a major focus of NERC in 2016.
- Critical infrastructure protection will fully integrate the requirements of version 5 of the Cyber Standards in 2016.

### **2016 Goals and Key Deliverables**

- 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.
- Assist NERC in the development of a data base which will provide a common repository for event reporting and data.
- Establish a mechanism for the dissemination of the detailed Event Analysis Report to the broad industry.
- Assess and implement the Lessons Learned generated by the GridEx III wide-area exercise

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.

## Resource Requirements

### Personnel

- Total personnel expenses have been adjusted to reflect planned retirement of a senior staff member.
- NPCC anticipates no need to hire additional personnel in this program area in 2016.

### Consultants and contracts

- Consultants and contracts expense increase in support of NPCC's efforts to enhance investigations and root cause analyses and the integration of ES-ISAC, GADS, and TADS information with events analyses.

## Situation Awareness and Infrastructure Security Program

Funding sources and related expenses for the situation awareness and infrastructure security section of the 2016 business plan are shown in the table below. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

Statement of Activities and Capital Expenditures						
2015 Budget & Projection, and 2016 Budget						
Situation Awareness and Infrastructure Security						
	2015	2015	Variance	2016	Variance	
	Budget	Projection	2015 Projection	Budget	2016 Budget	
			v 2015 Budget		v 2015 Budget	
			Over(Under)		Over(Under)	
<b>Funding</b>						
<b>ERO Funding</b>						
ERO Assessments	\$ 1,470,051	\$ 1,470,051	\$ -	\$ 1,536,637	\$ 66,587	
Penalty Sanctions	31,281	31,281	-	7,215	(24,067)	
<b>Total ERO Funding</b>	<b>\$ 1,501,332</b>	<b>\$ 1,501,332</b>	<b>\$ -</b>	<b>\$ 1,543,852</b>	<b>\$ 42,520</b>	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops	-	-	-	-	-	
Interest	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
<b>Total Funding (A)</b>	<b>\$ 1,501,332</b>	<b>\$ 1,501,332</b>	<b>\$ -</b>	<b>\$ 1,543,852</b>	<b>\$ 42,520</b>	
<b>Expenses</b>						
<b>Personnel Expenses</b>						
Salaries	\$ 541,258	\$ 541,258	\$ -	\$ 516,951	\$ (24,306)	
Payroll Taxes	32,811	32,811	-	32,630	(181)	
Benefits	80,801	80,801	-	116,230	35,428	
Retirement Costs	107,819	107,819	-	53,880	(53,939)	
<b>Total Personnel Expenses</b>	<b>\$ 762,689</b>	<b>\$ 762,689</b>	<b>\$ -</b>	<b>\$ 719,690</b>	<b>\$ (42,998)</b>	
<b>Meeting Expenses</b>						
Meetings	\$ 15,000	\$ 15,000	\$ -	\$ 15,000	\$ -	
Travel	60,000	60,000	-	65,000	5,000	
Conference Calls	-	-	-	-	-	
<b>Total Meeting Expenses</b>	<b>\$ 75,000</b>	<b>\$ 75,000</b>	<b>\$ -</b>	<b>\$ 80,000</b>	<b>\$ 5,000</b>	
<b>Operating Expenses</b>						
Consultants & Contracts	\$ 100,000	\$ 100,000	\$ -	\$ 157,000	\$ 57,000	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	-	-	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Depreciation	-	-	-	-	-	
<b>Total Operating Expenses</b>	<b>\$ 100,000</b>	<b>\$ 100,000</b>	<b>\$ -</b>	<b>\$ 157,000</b>	<b>\$ 57,000</b>	
<b>Total Direct Expenses</b>	<b>\$ 937,689</b>	<b>\$ 937,689</b>	<b>\$ -</b>	<b>\$ 956,690</b>	<b>\$ 19,002</b>	
<b>Indirect Expenses</b>	<b>\$ 574,629</b>	<b>\$ 574,629</b>	<b>\$ -</b>	<b>\$ 598,664</b>	<b>\$ 24,036</b>	
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Expenses (B)</b>	<b>\$ 1,512,318</b>	<b>\$ 1,512,318</b>	<b>\$ -</b>	<b>\$ 1,555,355</b>	<b>\$ 43,037</b>	
<b>Change in Assets</b>	<b>\$ (10,986)</b>	<b>\$ (10,986)</b>	<b>\$ -</b>	<b>\$ (11,503)</b>	<b>\$ (517)</b>	
<b>Fixed Assets</b>						
Depreciation	\$ -	-	\$ -	\$ -	\$ -	
Computer & Software CapEx	-	-	-	-	-	
Furniture & Fixtures CapEx	-	-	-	-	-	
Equipment CapEx	-	-	-	-	-	
Leasehold Improvements	-	-	-	-	-	
Allocation of Fixed Assets	(10,986)	(10,986)	-	(11,503)	(517)	
<b>Inc(Dec) in Fixed Assets (C)</b>	<b>(10,986)</b>	<b>(10,986)</b>	<b>-</b>	<b>(11,503)</b>	<b>(517)</b>	
<b>TOTAL BUDGET (=B+C)</b>	<b>1,501,332</b>	<b>1,501,332</b>	<b>-</b>	<b>1,543,852</b>	<b>42,520</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (0)</b>	<b>\$ (0)</b>	<b>\$ -</b>	<b>\$ (0)</b>	<b>\$ (0)</b>	

## Administrative Services

Administrative Services Program Resources						
(in whole dollars)						
	Direct Expenses and Fixed Assets			FTEs		
	2015 Budget	2016 Budget	Increase (Decrease)	2015 Budget	2016 Budget	Increase (Decrease)
Technical Committees and Members Forum	\$73,779	\$71,929	(\$1,850)	0.50	0.50	0.00
General and Administrative	\$3,209,290	\$3,345,139	\$135,848	2.50	2.50	0.00
Legal and Regulatory	\$628,183	\$639,905	\$11,723	1.00	1.00	0.00
Information Technology	\$1,156,674	\$1,233,263	\$76,589	3.00	3.00	0.00
Human Resources	\$183,817	\$176,588	(\$7,229)	1.00	1.00	0.00
Finance and Accounting	\$494,544	\$519,820	\$25,276	1.00	1.00	0.00
Total Administrative Services	\$5,746,287	\$5,986,643	\$240,356	9.00	9.00	0.00

### 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.

## Administrative Services

Funding sources and related expenses for the Administrative Services section of the 2016 business plan are shown in the table below. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

Statement of Activities and Capital Expenditures 2015 Budget & Projection, and 2016 Budget						
ADMINISTRATIVE SERVICES						
	2015 Budget	2015 Projection	Variance 2015 Projection v 2015 Budget Over(Under)	2016 Budget	Variance 2016 Budget v 2015 Budget Over(Under)	
<b>Funding</b>						
<b>ERO Funding</b>						
ERO Assessments	\$ (355,161)	\$ (355,161)	\$ -	\$ (592,801)	\$ (237,640)	
Penalty Sanctions	-	-	-	-	-	
<b>Total ERO Funding</b>	<b>\$ (355,161)</b>	<b>\$ (355,161)</b>	<b>\$ -</b>	<b>\$ (592,801)</b>	<b>\$ (237,640)</b>	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops	-	-	-	-	-	
Interest	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
<b>Total Funding (A)</b>	<b>\$ (355,161)</b>	<b>\$ (355,161)</b>	<b>\$ -</b>	<b>\$ (592,801)</b>	<b>\$ (237,640)</b>	
<b>Expenses</b>						
<b>Personnel Expenses</b>						
Salaries	\$ 1,769,318	\$ 1,769,318	\$ -	\$ 1,951,407	\$ 182,089	
Payroll Taxes	97,804	97,804	-	102,585	4,781	
Benefits	402,307	402,307	-	422,729	20,421	
Retirement Costs	435,638	435,638	-	330,001	(105,636)	
<b>Total Personnel Expenses</b>	<b>\$ 2,705,068</b>	<b>\$ 2,705,068</b>	<b>\$ -</b>	<b>\$ 2,806,722</b>	<b>\$ 101,654</b>	
<b>Meeting Expenses</b>						
Meetings	\$ 120,000	\$ 120,000	\$ -	\$ 125,000	\$ 5,000	
Travel	155,000	155,000	-	160,100	5,100	
Conference Calls	45,000	45,000	-	47,000	2,000	
<b>Total Meeting Expenses</b>	<b>\$ 320,000</b>	<b>\$ 320,000</b>	<b>\$ -</b>	<b>\$ 332,100</b>	<b>\$ 12,100</b>	
<b>Operating Expenses</b>						
Consultants & Contracts	\$ 124,000	\$ 124,000	\$ -	\$ 122,000	\$ (2,000)	
Office Rent	751,500	751,500	-	802,500	51,000	
Office Costs	578,700	578,700	-	639,500	60,800	
Professional Services	1,025,000	1,025,000	-	1,011,000	(14,000)	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	40,000	40,000	-	41,000	1,000	
Depreciation	202,019	202,019	-	231,821	29,802	
<b>Total Operating Expenses</b>	<b>\$ 2,721,219</b>	<b>\$ 2,721,219</b>	<b>\$ -</b>	<b>\$ 2,847,821</b>	<b>\$ 126,602</b>	
<b>Total Direct Expenses</b>	<b>\$ 5,746,287</b>	<b>\$ 5,746,287</b>	<b>\$ -</b>	<b>\$ 5,986,643</b>	<b>\$ 240,356</b>	
<b>Indirect Expenses</b>	<b>\$ (5,746,287)</b>	<b>\$ (5,746,287)</b>	<b>\$ -</b>	<b>\$ (5,986,643)</b>	<b>\$ (240,356)</b>	
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Expenses (B)</b>	<b>\$ (0)</b>	<b>\$ (0)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 0</b>	
<b>Change in Assets</b>	<b>\$ (355,161)</b>	<b>\$ (355,161)</b>	<b>\$ -</b>	<b>\$ (592,801)</b>	<b>\$ (237,640)</b>	
<b>Fixed Assets</b>						
Depreciation	(202,019)	(202,019)	\$ -	(231,821)	\$ (29,802)	
Computer & Software CapEx	100,000	100,000	-	125,000	25,000	
Furniture & Fixtures CapEx	-	-	-	-	-	
Equipment CapEx	-	-	-	-	-	
Leasehold Improvements	-	-	-	-	-	
Allocation of Fixed Assets	102,019	102,019	-	106,821	4,802	
<b>Inc(Dec) in Fixed Assets (C)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>TOTAL BUDGET (=B+C)</b>	<b>(0)</b>	<b>(0)</b>	<b>-</b>	<b>-</b>	<b>0</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (355,161)</b>	<b>\$ (355,161)</b>	<b>\$ -</b>	<b>\$ (592,801)</b>	<b>\$ (237,640)</b>	

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## Technical Committees and Member Forums

### 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.

### 2016 Key Assumptions

- NPCC's standing committee and subgroup structure for effective stakeholder involvement will continue in 2016
- 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 2016
- NPCC will continue to invest in technology and innovation to allow efficient collaboration on technical issues related to reliability

### 2016 Goals and Key Deliverables

The 2016 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.

### 2016 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 include, but are not limited to:

- Conducting the Media Event – release of the Summer 2016 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.)

### Resource Requirements

#### Personnel

- NPCC anticipates no need to hire additional personnel in this program area in 2016.

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## General and Administrative

### 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.

### Resource Requirements

#### Personnel

- NPCC anticipates no need to hire additional personnel in this program area in 2016.

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## Legal and Regulatory

### 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, General Counsel 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. In-house counsel provides legal advice to advance significant corporate policy and strategic planning initiatives and also provide legal support to other program areas on matters arising in connection with the performance of NPCC's delegated functions. In-house counsel draft agreements and pleadings and provide 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.

### Resource Requirements

#### Personnel

- NPCC anticipates no need to hire additional personnel in this program area in 2016.

#### Professional Services

- Decrease in professional services expense is projected in 2016 due to change in outside counsel effective January 2015 and increased workload taken on by in-house counsel.



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## Information Technology

### 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.

NPCC supports the ERO efforts to implement, operate and maintain software tools supporting common enterprise wide operations which have been approved by the ERO Executive Management Group (EROEMG), which is comprised of the senior leadership of NERC and each of the Regional Entities. NPCC's budget assumes the availability of enterprise software tools as described in NERC's business plan and budget. If implementation of these software applications is delayed or otherwise not available as planned, NPCC could incur additional costs to implement ERO Enterprise-wide programs pending the availability of these applications.

NERC and the Regional Entities are committed to working collaboratively to minimize duplication of effort and investments, and improve operational efficiency. This collaboration continues to refine existing strategies, governance and procurement practices applicable to the development, operation and maintenance of enterprise architecture, software and data systems supporting complementary and combined NERC and Regional Entity operations.

The NERC information technology budget does not supplant NPCC's need for IT expenditures for specific regional projects and internal region specific IT support needs. NPCC's 2016 Business Plan and Budget assumes agreed-upon ERO Enterprise applications will be available and includes only NPCC costs for region specific support needs.

### 2016 Key Assumptions

- Continue to develop and maintain the compliance portal through collaboration with other Regional Entities and NERC (CUG).
- Support the Event Analysis program through continued participation in the tools used for the tracking and analysis of system events and identification of better practice elements.
- Support the Bulk Electric System Exception Process "BEP" to enable and facilitate tracking and processing of exceptions submitted. 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.

### 2016 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:

- Conduct initial implementation and utilization of a document management system
- Create an information security program and environment aimed at reducing breach of security risks
- Determine longer-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

## **Resource Requirements**

### **Personnel**

- NPCC anticipates no need to hire additional personnel in this program area in 2016.

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## Human Resources

### 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.

### Resource Requirements

#### Personnel

- NPCC anticipates no need to hire additional personnel in this program area in 2016.

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## Accounting and Finance

### 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.

### 2016 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
- Alignment of changes in budget and changes in aggregate assessment
- 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 Variance Reports
- IRS Reporting
- Annual Independent Audit initiated by the Regional Entity

### Resource Requirements

#### Personnel

- NPCC anticipates no need to hire additional personnel in this program area in 2016.

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## 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 2014 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 2014 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.

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. In order to establish the RE division funding requirements for each balancing authority area on a NEL basis for all programs except for Compliance the proposed expenses and fixed assets of all other programs are calculated and the adjustment for the RE division cash reserve requirement is identified. Any penalty monies received from NPCC registered entities within the U.S. prior to June 30<sup>th</sup> 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. 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, with the resultant addition being the RE division assessment, without the compliance program costs, calculated on a NEL basis.

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In accordance with the *NPCC Amended and Restated Bylaws* the CS division proposed expenses and fixed assets of all programs are calculated and the adjustment for the CS division cash reserve requirement is identified, with the resultant addition being the CS division funding requirement and assessment, calculated on a NEL basis

For costs associated with the RE division compliance program, NPCC's allocation methodology apportions 23.61% of the costs for the program, attributed to CORC Fundamentals (CF), between the BAAs in the United States and Canada on a NEL basis.

Audits and Investigations (AI) related costs, representing 51.18% 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. 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 audit-based methodology, and this amount is then re-allocated between the New York and New England BAAs based on their relative NEL.

The remaining 25.21% 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,. 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.

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.

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.

NPCC 2016 Regional Entity (RE)  
and Criteria Services (CS) Divisional Funding Information

A-1	B-1	B-1a	C-1	C-1a	D-1	E-1	F-1	G-1	H-1	I-1	J-1	K-1	L-1	M
NPCC Balancing Authorities (LSE Designees)	2014 Net Energy for Load (MWh)	2014 NPCC US NEL (MWh)	2014 NPCC NEL % of Total	2014 NPCC NEL % of Total	2016 NPCC RE Division Expenses & Fixed Assets Minus CORC Program	Adjustment to RE Division Cash Reserve Requirement	2016 NPCC RE Division Funding Requirement Minus CORC Program	Penalty Monies Applied to RE Division Minus CORC Program	Budgeted Workshop Fees	2016 NPCC CS Division Expenses & Fixed Assets	2016 NPCC CS Division Adjustment to Cash Reserve Requirement	2016 NPCC CS Division Funding Requirement & Member Fees	2016 NPCC CS Division Funding Requirement & Member Fees	2016 NPCC CS Division Funding Requirement & Member Fees
New England	127,175,000	127,175,000	19,832,48%	44,275,75%	1,273,801	-117,567	1,156,234	-12,628	-12,693	1,130,913	229,475	-19,143	210,332	210,332
New York	160,059,000	160,059,000	24,960,62%	55,724,25%	1,603,171	-147,967	1,455,204	-13,894	-15,975	1,423,336	288,811	-24,093	264,718	264,718
Ontario	139,804,000	139,804,000	21,801,93%	1,400,295	-129,242	1,271,052	0	0	-13,953	1,257,099	252,263	-21,044	231,219	231,219
Quebec	189,311,000	189,311,000	29,522,37%	1,896,163	-175,009	1,721,154	0	0	-18,894	1,702,260	341,593	-28,496	313,097	313,097
New Brunswick	13,953,000	13,953,000	2,175,92%	139,755	-12,899	126,856	0	0	-1,393	125,464	25,177	-2,100	23,077	23,077
Nova Scotia	10,944,000	10,944,000	1,706,68%	109,616	-10,117	99,499	0	0	-1,092	98,407	19,747	-1,647	18,100	18,100
<b>Total</b>	<b>641,246,000</b>	<b>641,246,000</b>	<b>100,000,00%</b>	<b>100,000,00%</b>	<b>\$6,422,801</b>	<b>-\$92,801</b>	<b>\$5,830,000</b>	<b>-\$28,322</b>	<b>-\$64,000</b>	<b>\$5,777,478</b>	<b>\$1,157,066</b>	<b>-\$96,525</b>	<b>\$1,060,542</b>	<b>\$1,060,542</b>

A-2	B-2	CORC Audit and Investigation Cost Allocation <sup>3</sup>			CORC Mitigation and Enforcement Cost Allocation <sup>4</sup>			F-2	G-2	H-2	I-2	J-2	K-2	L-2	M
		C-2	D-2	E-2	F-2	G-2	H-2								
NPCC Balancing Authorities (LSE Designees)	2014 NEL Based Allocation of 23.6% of 2016 CORC Program Fundamentals <sup>2</sup>	2016 Audit and Investigation Allocation Methodology	2016 51.18% of CORC Program	2016 Mitigation and Enforcement Allocation Methodology	2016 25.21% of CORC Program	2016 U.S. Canada NEL Based Activity Based	2016 U.S. Canada NEL Based Activity Based	2016 Total CORC Program Expenses & Fixed Assets	2016 Total CORC Program Expenses & Fixed Assets	2016 Total CORC Program Expenses & Fixed Assets	2016 Total CORC Program Expenses & Fixed Assets	2016 Total CORC Program Expenses & Fixed Assets	2016 Total CORC Program Expenses & Fixed Assets	2016 Total CORC Program Expenses & Fixed Assets	2016 Total CORC Program Expenses & Fixed Assets
New England	405,101	46,0653%	36,49280%	1,615,452	55,84865%	38,16605%	832,331	2,852,884	2,852,884	-17,056	2,835,847	4,009,118	3,986,760	4,219,449	4,177,092
New York	509,849	36,3561%	45,92885%	2,033,164	30,33215%	48,03475%	1,047,549	3,590,562	3,590,562	-21,442	3,569,120	5,045,766	4,992,456	5,310,484	5,257,174
Ontario	445,329	5,00147%	5,00147%	221,404	4,07653%	4,07653%	88,902	755,634	755,634	0	755,634	2,026,667	2,012,733	2,257,905	2,243,952
Quebec	603,027	7,77035%	7,77035%	343,975	8,52078%	8,52078%	185,822	1,132,825	1,132,825	0	1,132,825	2,835,979	2,835,085	3,167,076	3,148,182
New Brunswick	44,446	2,58136%	2,58136%	114,271	0,58065%	0,58065%	12,663	171,380	171,380	0	171,380	298,236	296,843	321,312	319,920
Nova Scotia	34,861	2,22516%	2,22516%	98,303	0,62123%	0,62123%	13,548	146,911	146,911	0	146,911	246,411	245,318	264,511	263,418
<b>Total</b>	<b>\$2,042,612</b>	<b>100,000,00%</b>	<b>82,42166%</b>	<b>\$3,648,617</b>	<b>100,000,00%</b>	<b>86,20081%</b>	<b>\$1,879,880</b>	<b>\$8,650,196</b>	<b>\$8,611,718</b>	<b>-\$38,478</b>	<b>\$8,611,718</b>	<b>\$14,480,196</b>	<b>\$14,349,196</b>	<b>\$15,540,738</b>	<b>\$15,409,738</b>

1. Consistent with NERC's Policy on Allocation of Certain Compliance and Enforcement Costs, the NPCC Board approved Allocation Methodologies for Certain NPCC Compliance Program Area Costs Assessed to Non-U.S. Entities.

2. CORC Program Fundamentals expenses of \$2,042,612 represent 23.61% of the Total CORC Program Costs and are allocated using the Regional NEL based methodology.

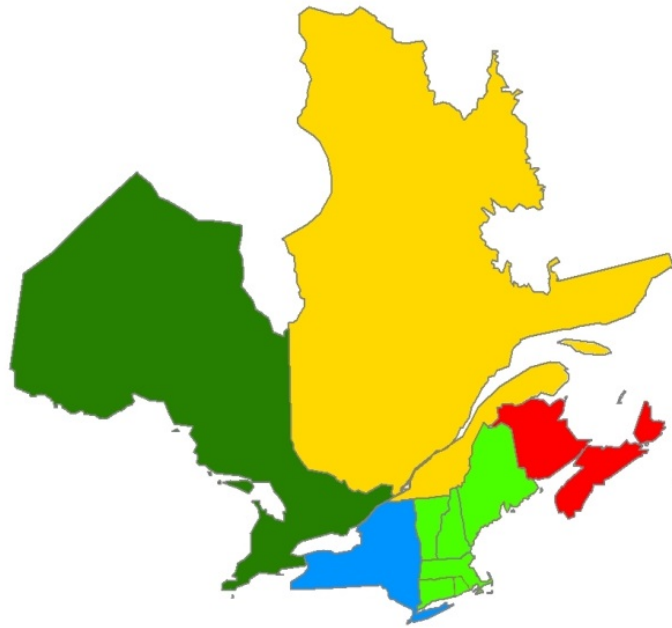
3. Audit and Investigation expenses of \$4,426,769 represent 51.18% of the Total CORC Program Costs. The Canadian costs are allocated utilizing an audit based methodology. The portion of 82.42166% attributable to U.S. NPCC is allocated between the New York and New England balancing authority areas based on their respective net energy for load (NEL) as shown in Columns B-1a and C-1a. The ratios in C-1a are applied to the 82.42166% of U.S. audit costs to obtain the percentages (Column C-2 b) which are then applied to the 51.18% of CORC costs. Audit based allocation uses Compliance Registry Data registrations as of May 1, 2015.

4. Mitigation and Enforcement expenses of \$2,180,815 represent 25.21% of the Total CORC Program Costs. The Canadian costs are allocated utilizing an enforcement activity based methodology. The portion of 86.20081% attributable to U.S. NPCC is allocated between the New York and New England balancing authority areas based on their respective net energy for load (NEL) as shown in Columns B-1a and C-1a. The ratios in C-1a are applied to the 82.42166% of U.S. enforcement costs to obtain the percentages (Column C-2 b) which are then applied to the 25.21% of CORC costs.

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## Section B – Supplemental Financial Information 2016 Business Plan and Budget

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## Section B — Supplemental Financial Information

### Reserve Balance

#### Table B-1 – Reserve Balance

Working Capital and Operating Reserve Analysis 2015-2016			
REGIONAL ENTITY DIVISION			
	Total Reserve	Operating Reserve	Working Capital
<b>Beginning Total Reserve, December 31, 2014</b>	4,287,707	3,031,674	1,256,033
Plus: 2015 ERO Funding (from LSEs or designees)	14,068,878	14,068,878	0
Plus: 2015 Other funding sources	354,500	354,500	0
Less: 2015 Projected expenses & capital expenditures	(14,778,539)	(14,778,539)	0
<b>Projected Total Reserve, December 31, 2015</b>	<b>3,932,546</b>	<b>2,676,513</b>	<b>1,256,033</b>
<b>Desired Total Reserve, December 31, 2016</b> <sup>1</sup>	<b>3,339,745</b>	2,083,712 <sup>2</sup>	1,256,033
22.16% of Total Regional Entity Budget of \$15,072,998			
Less: Projected Working Capital and Operating Reserve, December 31, 2015	(3,932,546)	(2,676,513)	(1,256,033)
<b>Increase(decrease) in assessments to achieve desired Total Reserve</b>	<b>(592,801)</b>	<b>(592,801)</b>	<b>0</b>
2016 Expenses and Capital Expenditures	15,072,998		
Less: Penalty Sanctions <sup>4</sup>	(67,000)		
Less: Other Funding Sources	(64,000)		
Adjustment to achieve desired Total Reserve balance	(592,801)		
<b>2016 Assessment</b>	<b>14,349,197</b>		

<sup>1</sup> Total Reserve within a range of 16.67% - 33.33% of Budget.

<sup>2</sup> Operating Reserve within a range from 8.33% to 25.00% of Budget. \$2,083,712 represents 13.82% of the 2016 budget of \$15,072,998

<sup>3</sup> Working Capital equal to 8.33% of Budget. \$1,256,033 represents 8.33% of the 2016 budget of \$15,072,998

<sup>4</sup> Represents collections prior to June 30, 2015.

### Explanation of Changes in Reserve Policy from Prior Year

None

## 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 2016 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, 2015 are to be used to offset assessments in the 2016 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, 2015 through June 30, 2016 will be used to offset U.S. load serving entity designee assessments in the 2017 Budget.

All penalties received prior to June 30, 2015 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, 2015	Date Received	Amount Received
Penalty Payment 1	11/14/2014	\$ 5,000.00
Penalty Payment 2	11/24/2014	\$ 20,000.00
Penalty Payment 3	11/20/2014	\$ 12,000.00
Penalty Payment 4	12/1/2014	\$ 20,000.00
Penalty Payment 5	3/5/2015	\$ 10,000.00
<b>Total Penalties Received</b>		<b>\$ 67,000.00</b>

**Table B-3 – Supplemental Funding**

Outside Funding Breakdown By Program (excluding ERO Assessments & Penalty Sanctions)	Budget 2014	Projection 2014	Budget 2015	Variance 2015 Budget v 2014 Budget
<b>Reliability Standards</b>				
<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<b>Compliance Monitoring, Enforcement &amp; Org. Registration</b>				
	\$ -	\$ -	\$ -	\$ -
	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<b>Reliability Assessment and Performance Analysis</b>				
	\$ -	\$ -	\$ -	\$ -
	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<b>Training and Education</b>				
Workshops	\$ 64,000	\$ 64,000	\$ 64,000	\$ -
<b>Total</b>	\$ 64,000	\$ 64,000	\$ 64,000	\$ -
<b>Situation Awareness and Infrastructure Security</b>				
	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<b>Technical Committees and Member Forums</b>				
	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<b>Administrative Services Programs</b>				
	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<b>Total Outside Funding</b>	\$ 64,000	\$ 64,000	\$ 64,000	\$ -

**Explanation of Significant Variances –2016 Budget versus 2015 Budget**

- NPCC assumed no interest income because of continuing low market interest rates.

Table B-4 – Personnel Expenses

Personnel Expenses	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
<b>Salaries</b>					
Salary	\$ 6,175,425	\$ 6,175,425	\$ 6,531,470	\$ 356,046	5.8%
Employment Agency Fees	\$ 10,000	\$ 10,000	\$ 10,000	\$ -	0.0%
Temporary Office Services	\$ 10,000	\$ 10,000	\$ 20,000	\$ 10,000	100.0%
<b>Total Salaries</b>	\$ 6,195,425	\$ 6,195,425	\$ 6,561,470	\$ 366,046	5.9%
<b>Total Payroll Taxes</b>	\$ 387,209	\$ 387,209	\$ 399,057	\$ 11,848	3.1%
<b>Benefits</b>					
Education Reimbursement	\$ 10,000	\$ 10,000	\$ 15,000	\$ 5,000	50.0%
Training and Seminars	\$ 36,123	\$ 36,123	\$ 36,860	\$ 737	2.0%
Medical Insurance	\$ 720,337	\$ 720,337	\$ 763,048	\$ 42,711	5.9%
Life-LTD-STD Insurance	\$ 64,566	\$ 64,566	\$ 83,048	\$ 18,482	28.6%
Worker's Compensation	\$ 14,700	\$ 14,700	\$ 15,000	\$ 300	2.0%
Vacation	\$ 410,868	\$ 410,868	\$ 451,843	\$ 40,975	10.0%
Relocation	\$ -	\$ -	\$ -	\$ -	-
<b>Total Benefits</b>	\$ 1,256,595	\$ 1,256,595	\$ 1,364,799	\$ 108,205	8.6%
<b>Retirement</b>					
Pension Contribution	\$ 353,723	\$ 353,723	\$ -	\$ (353,723)	-100.0%
Employee Savings Plan	\$ 644,290	\$ 644,290	\$ 713,118	\$ 68,828	10.7%
Savings Admin	\$ 32,000	\$ 32,000	\$ 60,000	\$ 28,000	87.5%
Deferred Compensation	\$ 60,000	\$ 60,000	\$ 60,000	\$ -	0.0%
<b>Total Retirement</b>	\$ 1,090,013	\$ 1,090,013	\$ 833,118	\$ (256,895)	-23.6%
<b>Total Personnel Costs</b>	\$ 8,929,241	\$ 8,929,241	\$ 9,158,445	\$ 229,204	2.6%
<b>FTEs</b>	36.86	36.86	36.86	-	0.0%
<b>Cost per FTE</b>					
Salaries	\$ 168,080	\$ 168,080	\$ 178,011	\$ 9,931	5.9%
Payroll Taxes	\$ 10,505	\$ 10,505	\$ 10,826	\$ 321	3.1%
Benefits	\$ 34,091	\$ 34,091	\$ 37,027	\$ 2,936	8.6%
Retirement	\$ 29,572	\$ 29,572	\$ 22,602	\$ (6,969)	-23.6%
<b>Total Cost per FTE</b>	\$ 242,247	\$ 242,247	\$ 248,466	\$ 6,218	2.6%

### Explanation of Significant Variances –2016 Budget versus 2015 Budget

- Salaries include a 3% wage package increase. Salary assumptions are based on fully implementing NPCC Management Development and Compensation Committee recommended and NPCC Board approved changes to salary and variable incentive bandwidths in order to achieve a 50th percentile target.
- Decrease vacancy rate from 2% to 0% based on recent staffing trend.
- Increase temporary office services to supplement staff in administrative services program areas.
- Medical insurance increase reflects a medical premium increase of 10%.
- Increases in life and disability insurance premiums.
- Defined benefit pension contribution reduced based on the assumption that IRS approves plan termination by year end 2015. Potential increases in pension liability would be funded through reserves.
- Increase in employee savings plan and savings admin expenses are the result of defined benefit pension plan termination.

**Table B-5 – Meeting Expense**

Meeting Expenses	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
Meetings	\$ 365,000	\$ 365,000	\$ 394,000	\$ 29,000	7.9%
Travel	\$ 890,000	\$ 890,000	\$ 907,100	\$ 17,100	1.9%
Conference Calls	\$ 45,000	\$ 45,000	\$ 47,000	\$ 2,000	4.4%
<b>Total Meeting Expenses</b>	<b>\$ 1,300,000</b>	<b>\$ 1,300,000</b>	<b>\$ 1,348,100</b>	<b>\$ 48,100</b>	<b>3.7%</b>

**Explanation of Significant Variances –2016 Budget versus 2015 Budget**

- Meeting expenses increase as a result of greater number and participation in NPCC seminars and workshops.

Table B-6 Consultants and Contracts

Consultants	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
<b>Consultants</b>					
Reliability Standards	\$ -	\$ -	\$ -	\$ -	-
Compliance Enforcement and Organization Registration and Certification	\$ 15,000	\$ 15,000	\$ 15,000	\$ -	0.0%
Reliability Assessment and Performance Analysis	\$ -	\$ -	\$ -	\$ -	-
Training and Education	\$ -	\$ -	\$ -	\$ -	-
Situation Awareness and Infrastructure Security	\$ -	\$ -	\$ -	\$ -	-
Member Forums	\$ -	\$ -	\$ -	\$ -	-
General and Administrative	\$ 35,000	\$ 35,000	\$ 33,000	\$ (2,000)	-5.7%
Legal and Regulatory	\$ -	\$ -	\$ -	\$ -	-
Information Technology	\$ -	\$ -	\$ -	\$ -	-
Human Resources	\$ -	\$ -	\$ -	\$ -	-
Accounting and Finance	\$ -	\$ -	\$ -	\$ -	-
<b>Consultants Total</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 48,000</b>	<b>\$ (2,000)</b>	<b>-4.0%</b>
Contracts	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
Reliability Standards	\$ 25,000	\$ 25,000	\$ 10,000	\$ (15,000)	-60.0%
Compliance Enforcement and Organization Registration and Certification	\$ 1,713,000	\$ 1,713,000	\$ 1,545,000	\$ (168,000)	-9.8%
Reliability Assessment and Performance Analysis	\$ 365,000	\$ 365,000	\$ 374,500	\$ 9,500	2.6%
Training and Education	\$ -	\$ -	\$ -	\$ -	-
Situation Awareness and Infrastructure Security	\$ 100,000	\$ 100,000	\$ 157,000	\$ 57,000	57.0%
Member Forums	\$ -	\$ -	\$ -	\$ -	-
General and Administrative	\$ 82,000	\$ 82,000	\$ 82,000	\$ -	0.0%
Legal and Regulatory	\$ -	\$ -	\$ -	\$ -	-
Information Technology	\$ -	\$ -	\$ -	\$ -	-
Human Resources	\$ -	\$ -	\$ -	\$ -	-
Accounting and Finance	\$ 7,000	\$ 7,000	\$ 7,000	\$ -	0.0%
<b>Contracts Total</b>	<b>\$ 2,292,000</b>	<b>\$ 2,292,000</b>	<b>\$ 2,175,500</b>	<b>\$ (116,500)</b>	<b>-5.1%</b>
<b>Total Consultants and Contracts</b>	<b>\$ 2,342,000</b>	<b>\$ 2,342,000</b>	<b>\$ 2,223,500</b>	<b>\$ (118,500)</b>	<b>-5.1%</b>

### Explanation of Significant Variances –2016 Budget versus 2015 Budget

- In the area of Reliability Standards consultant and contractor costs are expected to decrease due to a full complement of staff and internal subject matter expertise to evaluate standards and criteria and fulfill all ERO delegated functions assigned to the Reliability Standards Program Area.
- Contractor costs are projected to decrease in 2016 in the area of Compliance Monitoring and Enforcement and Organization Registration and Certification as a result of the implementation of the risk-based approach in 2015.
- In the area of Situation Awareness and Infrastructure Security, consultants and contracts expense increase in support of NPCC's efforts to enhance investigations and root cause analyses and the integration of ES-ISAC, GADS, and TADS information with events analyses.

Table B-7 Office Rent

Office Rent	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
Office Rent	\$ 645,000	\$ 645,000	\$ 650,000	\$ 5,000	0.8%
Utilities	\$ 40,000	\$ 40,000	\$ 40,000	\$ -	0.0%
Maintenance	\$ 22,000	\$ 22,000	\$ 40,000	\$ 18,000	81.8%
Security	\$ 2,500	\$ 2,500	\$ 2,500	\$ -	0.0%
Real Estate Taxes	\$ 42,000	\$ 42,000	\$ 70,000	\$ 28,000	66.7%
<b>Total Office Rent</b>	<b>\$ 751,500</b>	<b>\$ 751,500</b>	<b>\$ 802,500</b>	<b>\$ 51,000</b>	<b>6.8%</b>

**Explanation of Significant Variances –2016 Budget versus 2015 Budget**

- Maintenance expense reflects full year impact of landlord projected increase in operating costs.
- Real estate taxes reflect full year impact of landlord projected increase.

Table B-8 Office Costs

Office Costs	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
Telephone	\$ 110,000	\$ 110,000	\$ 112,000	\$ 2,000	1.8%
Internet Expense	\$ 80,000	\$ 80,000	\$ 95,400	\$ 15,400	19.3%
Office Supplies	\$ 36,000	\$ 36,000	\$ 33,000	\$ (3,000)	-8.3%
Computer Supplies and Maintenance	\$ 260,000	\$ 260,000	\$ 321,000	\$ 61,000	23.5%
Subscriptions & Publications	\$ 13,500	\$ 13,500	\$ 13,500	\$ -	0.0%
Dues	\$ 4,000	\$ 4,000	\$ 4,000	\$ -	0.0%
Postage	\$ 1,200	\$ 1,200	\$ 1,200	\$ -	0.0%
Express Shipping	\$ 10,000	\$ 10,000	\$ 10,000	\$ -	0.0%
Copying	\$ 25,000	\$ 25,000	\$ 26,400	\$ 1,400	5.6%
Reports	\$ 5,000	\$ 5,000	\$ 6,000	\$ 1,000	20.0%
Stationary and Office Forms	\$ 3,000	\$ 3,000	\$ 2,000	\$ (1,000)	-33.3%
Equipment Repair/Service Contracts	\$ 8,000	\$ 8,000	\$ -	\$ (8,000)	-100.0%
Bank Charges	\$ 23,000	\$ 23,000	\$ 15,000	\$ (8,000)	-34.8%
Sales and Use Tax	\$ -	\$ -	\$ -	\$ -	-
Merchant Credit Card Fees	\$ -	\$ -	\$ -	\$ -	-
Presentation and Publicity	\$ -	\$ -	\$ -	\$ -	-
<b>Total Office Costs</b>	<b>\$ 578,700</b>	<b>\$ 578,700</b>	<b>\$ 639,500</b>	<b>\$ 60,800</b>	<b>10.5%</b>

**Explanation of Significant Variances –2016 Budget versus 2015 Budget**

- Internet expense increased as a result of system upgrades.
- Computer supplies and maintenance expense increase associated with additional software contracts and new equipment leases. Partially offset by decrease in equipment repair/service contracts.
- Reduction in bank charges due to reclassification of employee savings admin fees to savings admin account under personnel.

**Table B-9 Professional Services**

Professional Services	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
BOT Fee	\$ 325,000	\$ 325,000	\$ 325,000	\$ -	0.0%
BOT Search Fee	\$ -	\$ -	\$ -	\$ -	-
Legal - Reorganization	\$ -	\$ -	\$ -	\$ -	-
Accounting & Auditing Fees	\$ 310,000	\$ 310,000	\$ 310,000	\$ -	0.0%
Legal Fees - Other	\$ 350,000	\$ 350,000	\$ 316,000	\$ (34,000)	-9.7%
Insurance - Commercial	\$ 40,000	\$ 40,000	\$ 60,000	\$ 20,000	50.0%
<b>Total Services</b>	<b>\$ 1,025,000</b>	<b>\$ 1,025,000</b>	<b>\$ 1,011,000</b>	<b>\$ (14,000)</b>	<b>-1.4%</b>

**Explanation of Significant Variances –2016 Budget versus 2015 Budget**

- Decrease in legal fees due to change in outside counsel effective January 1, 2015 and increased workload taken on by General Counsel.
- General liability increase based on broker projection.

**Table B-10 – Miscellaneous**

Miscellaneous Expense	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
Miscellaneous Expense	\$ 40,000	\$ 40,000	\$ 41,000	\$ 1,000	2.5%
<b>Total Miscellaneous Expense</b>	<b>\$ 40,000</b>	<b>\$ 40,000</b>	<b>\$ 41,000</b>	<b>\$ 1,000</b>	<b>2.5%</b>

**Table B-11 Other Non-Operating Expenses**

Other Non-Operating Expenses	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
Interest Expense	\$ -	\$ -	\$ -	\$ -	-
Office Relocation	\$ -	\$ -	\$ -	\$ -	-
<b>Total Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>



**Table B-12 Fixed Assets**

Fixed Assets	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
Depreciation	\$ (202,019)	\$ (202,019)	\$ (231,821)	\$ (29,802)	14.8%
Equipment CapEx	\$ -	\$ -	\$ -	\$ -	-
Computer & Software CapEx	\$ 222,000	\$ 222,000	\$ 276,000	\$ 54,000	24.3%
Furniture & Fixtures CapEx	\$ -	\$ -	\$ -	\$ -	-
Leasehold Improvements	\$ -	\$ -	\$ -	\$ -	-
Allocation of Fixed Assets	\$ -	\$ -	\$ -	\$ -	-
<b>Total Increase (Decrease) in Fixed Assets</b>	<b>\$ 19,981</b>	<b>\$ 19,981</b>	<b>\$ 44,179</b>	<b>\$ 24,198</b>	<b>121.1%</b>

**Explanation of Significant Variances –2016 Budget versus 2015 Budget**

- Depreciation expense increase based on additional assets to be placed in service during 2015.
- Computer & software capital expenditures are associated with CDAA and CITS software enhancements, as well as the initial implementation of a document management system.

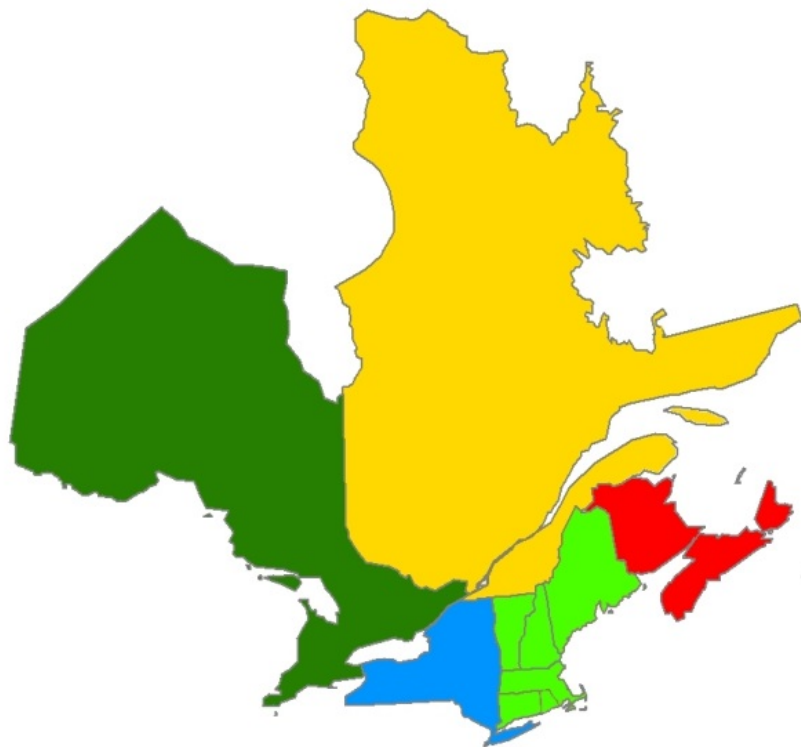
Table B-13 2017 and 2018 Projections

Statement of Activities and Capital Expenditures 2016 Budget & Projected 2017 and 2018 Budgets								
	2016 Budget	2017 Projection	\$ Change 16 v 17	% Change 16 v 17	2018 Projection	\$ Change 17 v 18	% Change 17 v 18	
<b>Funding</b>								
<b>ERO Funding</b>								
ERO Assessments	\$ 14,349,196	\$ 15,351,270	\$ 1,002,074	7.0%	\$ 15,705,786	\$ 354,516	2.3%	
Penalty Sanctions	67,000	-	(67,000)	-100.0%	-	-		
<b>Total ERO Funding</b>	<b>\$ 14,416,196</b>	<b>\$ 15,351,270</b>	<b>\$ 935,074</b>	<b>6.5%</b>	<b>\$ 15,705,786</b>	<b>\$ 354,516</b>	<b>2.3%</b>	
Membership Dues	-	-	-		-	-		
Testing Fees	-	-	-		-	-		
Services & Software	-	-	-		-	-		
Workshops	64,000	64,000	-	0.0%	64,000	-	0.0%	
Interest	-	-	-		-	-		
Miscellaneous	-	-	-		-	-		
<b>Total Funding (A)</b>	<b>\$ 14,480,196</b>	<b>\$ 15,415,270</b>	<b>\$ 935,074</b>	<b>6.5%</b>	<b>\$ 15,769,786</b>	<b>\$ 354,516</b>	<b>2.3%</b>	
<b>Expenses</b>								
<b>Personnel Expenses</b>								
Salaries	\$ 6,561,470	\$ 6,758,314	\$ 196,844	3.0%	\$ 6,961,064	\$ 202,749	3.0%	
Payroll Taxes	399,057	411,029	11,972	3.0%	423,360	12,331	3.0%	
Benefits	1,364,799	1,446,687	81,888	6.0%	1,533,488	86,801	6.0%	
Retirement Costs	833,118	858,111	24,994	3.0%	883,855	25,743	3.0%	
<b>Total Personnel Expenses</b>	<b>\$ 9,158,445</b>	<b>\$ 9,474,142</b>	<b>\$ 315,697</b>	<b>3.4%</b>	<b>\$ 9,801,767</b>	<b>\$ 327,625</b>	<b>3.5%</b>	
<b>Meeting Expenses</b>								
Meetings	\$ 394,000	\$ 397,940	\$ 3,940	1.0%	\$ 401,919	\$ 3,979	1.0%	
Travel	907,100	916,171	9,071	1.0%	925,333	9,162	1.0%	
Conference Calls	47,000	47,470	470	1.0%	47,945	475	1.0%	
<b>Total Meeting Expenses</b>	<b>\$ 1,348,100</b>	<b>\$ 1,361,581</b>	<b>\$ 13,481</b>	<b>1.0%</b>	<b>\$ 1,375,197</b>	<b>\$ 13,616</b>	<b>1.0%</b>	
<b>Operating Expenses</b>								
Consultants & Contracts	\$ 2,223,500	\$ 2,223,500	-	0.0%	\$ 2,223,500	-	0.0%	
Office Rent	802,500	810,525	8,025	1.0%	818,630	8,105	1.0%	
Office Costs	639,500	652,290	12,790	2.0%	665,336	13,046	2.0%	
Professional Services	1,011,000	1,011,000	-	0.0%	1,011,000	-	0.0%	
Miscellaneous	41,000	41,820	820	2.0%	42,656	836	2.0%	
Depreciation	231,821	236,457	4,636	2.0%	241,187	4,729	2.0%	
<b>Total Operating Expenses</b>	<b>\$ 4,949,321</b>	<b>\$ 4,975,592</b>	<b>\$ 26,271</b>	<b>0.5%</b>	<b>\$ 5,002,309</b>	<b>\$ 26,717</b>	<b>0.5%</b>	
<b>Total Direct Expenses</b>	<b>\$ 15,455,866</b>	<b>\$ 15,811,315</b>	<b>\$ 355,450</b>	<b>2.3%</b>	<b>\$ 16,179,273</b>	<b>\$ 367,957</b>	<b>2.3%</b>	
<b>Indirect Expenses</b>	<b>\$ (427,047)</b>	<b>\$ (435,588)</b>	<b>\$ (8,541)</b>	<b>2.0%</b>	<b>\$ (444,300)</b>	<b>\$ (8,712)</b>	<b>2.0%</b>	
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>		<b>\$ -</b>	<b>\$ -</b>		
<b>Total Expenses (B)</b>	<b>\$ 15,028,819</b>	<b>\$ 15,375,727</b>	<b>\$ 346,909</b>	<b>2.3%</b>	<b>\$ 15,734,973</b>	<b>\$ 359,246</b>	<b>2.3%</b>	
<b>Change in Assets</b>	<b>\$ (548,622)</b>	<b>\$ 39,543</b>	<b>\$ 588,165</b>	<b>-107.2%</b>	<b>\$ 34,813</b>	<b>\$ (4,729)</b>	<b>-12.0%</b>	
<b>Fixed Assets</b>								
Depreciation	\$ (231,821)	\$ (236,457)	\$ (4,636)	2.0%	\$ (241,187)	\$ (4,729)	2.0%	
Computer & Software CapEx	276,000	276,000	-	0.0%	276,000	-	0.0%	
Furniture & Fixtures CapEx	-	-	-		-	-		
Equipment CapEx	-	-	-		-	-		
Leasehold Improvements	-	-	-		-	-		
<b>(Incr)Dec in Fixed Assets (C)</b>	<b>\$ 44,179</b>	<b>\$ 39,543</b>	<b>\$ (4,636)</b>	<b>-10.5%</b>	<b>\$ 34,813</b>	<b>\$ (4,729)</b>	<b>-12.0%</b>	
<b>TOTAL BUDGET (=B+C)</b>	<b>\$ 15,072,998</b>	<b>\$ 15,415,270</b>	<b>\$ 342,272</b>	<b>2.3%</b>	<b>\$ 15,769,786</b>	<b>\$ 354,516</b>	<b>2.3%</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (592,801)</b>	<b>\$ 0</b>	<b>\$ 592,801</b>	<b>-100.0%</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>733.3%</b>	
FTEs	36.86	36.86	0	0.0%	36.86	0.00	0.0%	

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## Section C – Criteria Services Division Activities 2016 Business Plan and Budget

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## Section C —2016 Criteria Services Division Business Plan and Budget

<b>Criteria Services Division</b>			
(in whole dollars)			
	2015 Budget	2016 Budget	Increase (Decrease)
Total FTEs	2.14	2.14	0.00
Total Direct Expenses	\$729,550	\$738,525	\$8,975
Total Indirect Expenses	\$409,902	\$427,047	\$17,145
Other Non-Operating Expenses	\$0	\$0	\$0
Working Capital and Operating Reserves Requirement	(\$94,220)	(\$96,525)	(\$2,305)
Inc(Dec) in Fixed Assets	(\$10,011)	(\$8,506)	\$1,505
Funding Requirement	\$1,035,221	\$1,060,542	\$25,321

### NPCC Regionally-Specific Criteria Services Background

NPCC Criteria Services division activities are based on the development, maintenance (including retirement when no longer needed), 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, more specific or augment the existing NERC Reliability Standards requirements. These criteria require continual evaluation to ensure they are “not inconsistent with” any NERC reliability standards as the standards are approved by FERC and the applicable provincial governmental authorities, as per the NERC Rules of Procedure.

### 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 2016 Assumptions and Cost Impacts

The Criteria Services division services are expected to remain stable throughout 2016 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.

## 2016 Primary Goals and Objectives

- Continue with the development and maintenance of a set of NPCC Phase II Directories which are “not inconsistent with” the NERC Reliability Standards and which clearly delineate the more stringent NPCC criteria requirements
  - The combination of North American and Regional Reliability Standards with the more-stringent NPCC Regional criteria provides for consistency and operational clarity while providing a more robust defense in-depth, results based, standards to ensure BES reliability
  - Continually review the criteria found in the NPCC Directories and the ERO standards to ensure no redundancies or inconsistencies exist.
  - Retire Directory Criteria which have been overtaken by improved NERC standards
  - Continually file the more stringent requirements with the New York State Department of Public Service and Canadian Provinces as applicable
- 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.
- Continually review impact of Bulk Electric System definition on Directory and Criteria content and compliance reporting.
- Continually review potential impacts of Sector or NPCC organizational changes on the Directories and Criteria by performing a review of enforcement and arbitration processes as needed
- 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.
- Conduct review of the following Documents including incorporation of Phase II Directory effort:
  - Develop a new Directory for Disturbance Monitoring Equipment to house criteria, guides, and procedures.
  - Review and respond to Requests for Interpretations and Clarifications to existing NPCC Standards, Directories, and Criteria
  - Directory 7 – NPCC Special Protection Systems – Serve as lead Task Force working in conjunction with TFCP and TFSS on revisions required to ensure consistency with the development of the new NERC standard on Remedial Action Schemes.

### **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 conversion of NPCC’s criteria into Directories was undertaken to remove any redundancies with the NERC or NPCC Regional Reliability Standards and to clearly delineate the more stringent NPCC criteria requirements, assign Functional Model designations to those responsible for compliance and create measurable compliance criteria. 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 2016, work will proceed with maintenance, revision, or potential retirement of the individual Directories to address any future redundancies with new or modified NERC or NPCC Reliability Standards, as well as the continued need for additional more stringent or specific NPCC Regional criteria requirements as 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 2016. 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 and involves the translation of the existing criteria language into “requirements” which are clear, concise and measurable. Also, a standards style 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. NPCC will conduct internal reviews of all draft standards against Regional criteria and utilize subject matter experts to identify reliability and compliance related concerns. NPCC will file the revised NPCC Directories and notifications of retirements of Directories with the Canadian governmental and/or provincial Regulatory authorities within the NPCC “footprint”, on an as needed basis, in accordance with established provincial procedures and agreements executed with NPCC.

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:

### **NPCC Operations and Planning Directories**

The following Directories are envisioned to remain active for 2016.

#### *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 multi-disciplinary 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 # 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 assures 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
  - NPCC Criteria A-8, Reliability Compliance and Enforcement Program (RCEP)
  - NPCC Guide B-22, Guidelines for Implementation of the NPCC Inc. Compliance Program
  - NPCC Procedure C-32, Review Process for NPCC Reliability Compliance Enforcement Program
  - 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 2015 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 – 2016 Budget versus 2015 Budget**

### **Resource Requirements**

#### **Personnel**

- NPCC anticipates no need to hire additional personnel in this program area in 2016.

## 2015 Budget and Projection and 2016 Budget Comparisons

<b>Statement of Activities and Capital Expenditures</b>						
<b>2015 Budget &amp; Projection, and 2016 Budget</b>						
<b>CRITERIA SERVICES DIVISION</b>						
				Variance		Variance
	2015	2015	2015 Projection	v 2015 Budget	2016	v 2015 Budget
	Budget	Projection	v 2015 Budget	Over(Under)	Budget	v 2015 Budget
				Over(Under)		Over(Under)
<b>Funding</b>						
<b>ERO Funding</b>						
ERO Assessments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Penalty Sanctions	-	-	-	-	-	-
<b>Total ERO Funding</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
Membership Dues	1,035,221	1,035,221	-	-	1,060,542	25,321
Testing Fees	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-
Workshops	-	-	-	-	-	-
Interest	-	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 1,035,221</b>	<b>\$ 1,035,221</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,060,542</b>	<b>\$ 25,321</b>
<b>Expenses</b>						
<b>Personnel Expenses</b>						
Salaries	\$ 369,319	\$ 369,319	\$ -	\$ -	\$ 393,882	\$ 24,563
Payroll Taxes	22,681	22,681	-	-	23,275	594
Benefits	76,900	76,900	-	-	88,412	11,512
Retirement Costs	145,639	145,639	-	-	144,950	(689)
<b>Total Personnel Expenses</b>	<b>\$ 614,539</b>	<b>\$ 614,539</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 650,519</b>	<b>\$ 35,980</b>
<b>Meeting Expenses</b>						
Meetings	\$ 10,000	\$ 10,000	\$ -	\$ -	\$ 6,500	\$ (3,500)
Travel	63,000	63,000	-	-	46,000	(17,000)
Conference Calls	-	-	-	-	-	-
<b>Total Meeting Expenses</b>	<b>\$ 73,000</b>	<b>\$ 73,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 52,500</b>	<b>\$ (20,500)</b>
<b>Operating Expenses</b>						
Consultants & Contracts	\$ 30,000	\$ 30,000	\$ -	\$ -	\$ 25,000	\$ (5,000)
Office Rent	-	-	-	-	-	-
Office Costs	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-
Computer & Equipment Leases	-	-	-	-	-	-
Miscellaneous	2,000	2,000	-	-	2,000	-
Depreciation	10,011	10,011	-	-	8,506	(1,505)
<b>Total Operating Expenses</b>	<b>\$ 42,011</b>	<b>\$ 42,011</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 35,506</b>	<b>\$ (6,505)</b>
<b>Total Direct Expenses</b>	<b>\$ 729,550</b>	<b>\$ 729,550</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 738,525</b>	<b>\$ 8,975</b>
<b>Indirect Expenses</b>	<b>\$ 409,902</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 427,047</b>	<b>\$ 17,145</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 1,139,452</b>	<b>\$ 1,139,452</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,165,572</b>	<b>\$ 26,120</b>
<b>Change in Assets</b>	<b>\$ (104,231)</b>	<b>\$ (104,231)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (105,031)</b>	<b>\$ (800)</b>
<b>Fixed Assets</b>						
Depreciation	\$ (10,011)	(10,011)	\$ -	\$ -	\$ (8,506)	\$ 1,505
Computer & Software CapEx	-	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-	-
Equipment CapEx	-	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-
Allocation of Fixed Assets	-	-	-	-	-	-
<b>Inc(Dec) in Fixed Assets (C)</b>	<b>(10,011)</b>	<b>(10,011)</b>	<b>-</b>	<b>-</b>	<b>(8,506)</b>	<b>1,505</b>
<b>TOTAL BUDGET (=B+C)</b>	<b>1,129,441</b>	<b>1,129,441</b>	<b>-</b>	<b>-</b>	<b>1,157,066</b>	<b>27,625</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (94,220)</b>	<b>\$ (94,220)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (96,525)</b>	<b>\$ (2,305)</b>

## Personnel Analysis

Total FTE's by Program Area	Budget 2015	Projection 2015	Direct FTEs 2016 Budget	Shared FTEs <sup>1</sup> 2016 Budget	Total FTEs 2016 Budget	Change from 2015 Budget
<b>CRITERIA SERVICES DIVISION</b>						
<b>Operational Programs</b>						
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
<b>Total FTEs Operational Programs</b>	<b>2.14</b>	<b>2.14</b>	<b>2.00</b>	<b>0.14</b>	<b>2.14</b>	<b>0.00</b>
<b>Administrative Programs</b>						
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
<b>Total FTEs Administrative Programs</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Total FTEs</b>	<b>2.14</b>	<b>2.14</b>	<b>2.00</b>	<b>0.14</b>	<b>2.14</b>	<b>0.00</b>

<sup>1</sup>A shared FTE is defined as an employee who performs both Regional Entity and Criteria Services division functions.

## Reserve Analysis 2015-2016

Working Capital and Operating Reserve Analysis 2015-2016			
CRITERIA SERVICES DIVISION			
	Total Reserve	Operating Reserve	Working Capital
<b>Beginning Working Capital and Operating Reserves, December 31, 2014</b>	532,491	443,736	88,755
2015 Non-Statutory Funding (from members)	1,035,221	1,035,221	0
2015 Other funding sources	0	0	0
Less: 2015 Projected expenses & fixed asset additions	(1,129,441)	(1,129,441)	0
<b>Projected Working Capital, December 31, 2015</b>	<b>438,271</b>	<b>349,516</b>	<b>88,755</b>
<b>Desired Working Capital and Operating Reserve, December 31, 2016</b>	<b>341,746</b>	245,328	96,418
Less: Projected Working Capital Reserve Balance December 31, 2015	(438,271)	(349,516)	(88,755)
<b>Increase(decrease) in assessments to achieve desired Total Reserve</b>	<b>(96,525)</b>	<b>(104,188)</b>	7,663
2016 Funding requirement for expenses and fixed asset additions	1,157,066		
Adjustment to achieve desired Working Capital and Operating Reserve balance	(96,525)		
<b>2016 Funding and reserve requirement</b>	<b>1,060,542</b>		

<sup>1</sup> Total Reserve may be within a range of 16.67% - 33.33% of Budget.

<sup>2</sup> Total NPCC Operating Reserve must be within a range from 8.33% to 25.00% of Budget. \$245,328 represents 21.20% of the 2016 budget of \$1,157,066, however the combined total of the RE and CS budgets does not exceed 25.00%

<sup>3</sup> Total NPCC Working Capital must equal 8.33% of Budget. \$96,418 represents 8.33% of the 2016 budget of \$1,157,066

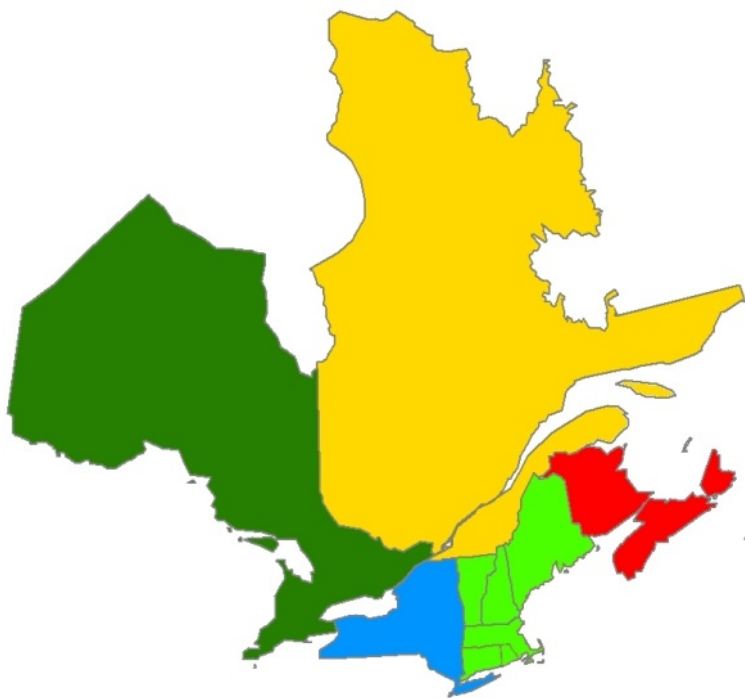
### Explanation of Changes in Reserve Policy from Prior Year

None

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Section D – Additional Consolidated Financial  
Statements  
2016 Business Plan and Budget

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## Section D — Additional Financial Statements

### Statement of Financial Position

<b>Statement of Financial Position</b>				
<b>2014 Audited, 2015 Projection, and 2016 Budget</b>				
<b>Regional Entity and Criteria Services Division</b>				
	(Per Audit)	Projected	Budget	
	31-Dec-14	31-Dec-15	31-Dec-16	
<b>ASSETS</b>				
Cash and cash equivalents	5,414,548	3,792,000	3,171,000	
Restricted cash	648,796	367,000	150,000	
Temporary cash investments	2,211,002	2,211,000	2,211,000	
Prepaid expenses	243,624	244,000	244,000	
Other assets	52,878	111,000	139,000	
Equipment and leasehold improvements, net	973,224	883,000	888,000	
<b>Total Assets</b>	<b>9,544,072</b>	<b>7,608,000</b>	<b>6,803,000</b>	
<b>LIABILITIES AND NET ASSETS</b>				
<b>Liabilities</b>				
Accrued expenses and other liabilities	1,648,827	1,600,000	1,600,000	
Accrued liability for pension	18,777	-	-	
Deferred revenue	994,910	-	-	
Deferred rent	740,636	687,000	633,000	
<b>Total Liabilities</b>	<b>3,403,150</b>	<b>2,287,000</b>	<b>2,233,000</b>	
<b>Net Assets - unrestricted</b>	<b>6,140,922</b>	<b>5,321,000</b>	<b>4,570,000</b>	
<b>Total Liabilities and Net Assets</b>	<b>9,544,072</b>	<b>7,608,000</b>	<b>6,803,000</b>	

Section D — Additional Financial Statements

NPCC Statement of Activities 2016 Budget			Reliability Standards (Section 300)	Compliance Monitoring and Enforcement and Organization Registration and Certification (Section 400 & 500)	Reliability Assessment and Performance Analysis (Section 800)	Training, Education, and Operator Certification (Section 900)	Situation Awareness and Infrastructure Security (Section 1000)	Technical Committees and Member Forums	Administrative Services
	RE Division Total	RE Division Total							
<b>Funding</b>									
<b>ERO Funding</b>									
ERO Assessments	14,349,196	14,349,196	1,480,373	8,611,718	3,157,554	155,715	1,536,637	-	(592,801)
Penalty Sanctions	67,000	67,000	7,046	38,478	14,020	240	7,215	-	-
<b>Total ERO Funding</b>	<b>14,416,196</b>	<b>14,416,196</b>	<b>1,487,419</b>	<b>8,650,196</b>	<b>3,171,574</b>	<b>155,956</b>	<b>1,543,852</b>	<b>-</b>	<b>(592,801)</b>
Membership Dues	-	-	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-	-	-
Workshops	64,000	64,000	-	-	-	64,000	-	-	-
Interest	-	-	-	-	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-	-	-	-
<b>Total Funding (A)</b>	<b>14,480,196</b>	<b>14,480,196</b>	<b>1,487,419</b>	<b>8,650,196</b>	<b>3,171,574</b>	<b>219,956</b>	<b>1,543,852</b>	<b>-</b>	<b>(592,801)</b>
<b>Expenses</b>									
<b>Personnel Expenses</b>									
Salaries	6,561,470	6,561,470	548,639	2,494,251	1,031,149	19,073	516,951	40,385	1,911,022
Payroll Taxes	399,057	399,057	32,229	166,018	64,284	1,311	32,630	3,479	99,106
Benefits	1,364,799	1,364,799	116,140	491,904	212,345	5,452	116,230	15,496	407,233
Retirement Costs	833,118	833,118	61,950	268,494	116,395	2,397	53,880	5,469	324,533
<b>Total Personnel Expenses</b>	<b>9,158,445</b>	<b>9,158,445</b>	<b>758,958</b>	<b>3,420,667</b>	<b>1,424,173</b>	<b>28,234</b>	<b>719,690</b>	<b>64,829</b>	<b>2,741,893</b>
<b>Meeting Expenses</b>									
Meetings	394,000	394,000	20,000	32,000	45,000	157,000	15,000	2,000	123,000
Travel	907,100	907,100	125,000	355,000	186,850	15,150	65,000	5,100	155,000
Conference Calls	47,000	47,000	-	-	-	-	-	-	47,000
<b>Total Meeting Expenses</b>	<b>1,348,100</b>	<b>1,348,100</b>	<b>145,000</b>	<b>387,000</b>	<b>231,850</b>	<b>172,150</b>	<b>80,000</b>	<b>7,100</b>	<b>325,000</b>
<b>Operating Expenses</b>									
Consultants & Contracts	2,223,500	2,223,500	10,000	1,560,000	374,500	-	157,000	-	122,000
Office Rent	802,500	802,500	-	-	-	-	-	-	802,500
Office Costs	639,500	639,500	-	-	-	-	-	-	639,500
Professional Services	1,011,000	1,011,000	-	-	-	-	-	-	1,011,000
Miscellaneous	41,000	41,000	-	-	-	-	-	-	41,000
Depreciation	231,821	231,821	-	-	-	-	-	-	231,821
<b>Total Operating Expenses</b>	<b>4,949,321</b>	<b>4,949,321</b>	<b>10,000</b>	<b>1,560,000</b>	<b>374,500</b>	<b>-</b>	<b>157,000</b>	<b>-</b>	<b>2,847,821</b>
<b>Total Direct Expenses</b>	<b>15,455,866</b>	<b>15,455,866</b>	<b>913,958</b>	<b>5,367,667</b>	<b>2,030,523</b>	<b>200,384</b>	<b>956,690</b>	<b>71,929</b>	<b>5,914,714</b>
<b>Indirect Expenses</b>	<b>(427,047)</b>	<b>(427,047)</b>	<b>584,695</b>	<b>3,192,876</b>	<b>1,163,404</b>	<b>19,955</b>	<b>598,664</b>	<b>(71,929)</b>	<b>(5,914,714)</b>
<b>Other Non-Operating Expenses</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Expenses (B)</b>	<b>15,028,819</b>	<b>15,028,819</b>	<b>1,498,654</b>	<b>8,560,543</b>	<b>3,193,927</b>	<b>220,339</b>	<b>1,555,355</b>	<b>-</b>	<b>-</b>
<b>Change in Assets</b>	<b>(548,622)</b>	<b>(548,622)</b>	<b>(11,234)</b>	<b>89,653</b>	<b>(22,353)</b>	<b>(383)</b>	<b>(11,503)</b>	<b>-</b>	<b>(592,801)</b>
<b>Fixed Assets</b>									
Depreciation	(231,821)	(231,821)	-	-	-	-	-	-	(231,821)
Computer & Software CapEx	276,000	276,000	-	151,000	-	-	-	-	125,000
Furniture & Fixtures CapEx	-	-	-	-	-	-	-	-	-
Equipment CapEx	-	-	-	-	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-	-	-	-
Allocation of Fixed Assets	-	-	(11,234)	(61,347)	(22,353)	(383)	(11,503)	-	106,821
<b>Inc (Dec) in Fixed Assets (C)</b>	<b>44,179</b>	<b>44,179</b>	<b>(11,234)</b>	<b>89,653</b>	<b>(22,353)</b>	<b>(383)</b>	<b>(11,503)</b>	<b>-</b>	<b>-</b>
<b>TOTAL BUDGET (=B + C)</b>	<b>15,072,998</b>	<b>15,072,998</b>	<b>1,487,419</b>	<b>8,650,196</b>	<b>3,171,574</b>	<b>219,956</b>	<b>1,543,852</b>	<b>-</b>	<b>-</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>(592,801)</b>	<b>(592,801)</b>	<b>0</b>	<b>-</b>	<b>0</b>	<b>(0)</b>	<b>(0)</b>	<b>-</b>	<b>(592,801)</b>
<b>FTEs</b>	<b>36.86</b>	<b>36.86</b>	<b>2.93</b>	<b>16.00</b>	<b>5.83</b>	<b>0.10</b>	<b>3.00</b>	<b>0.50</b>	<b>8.50</b>

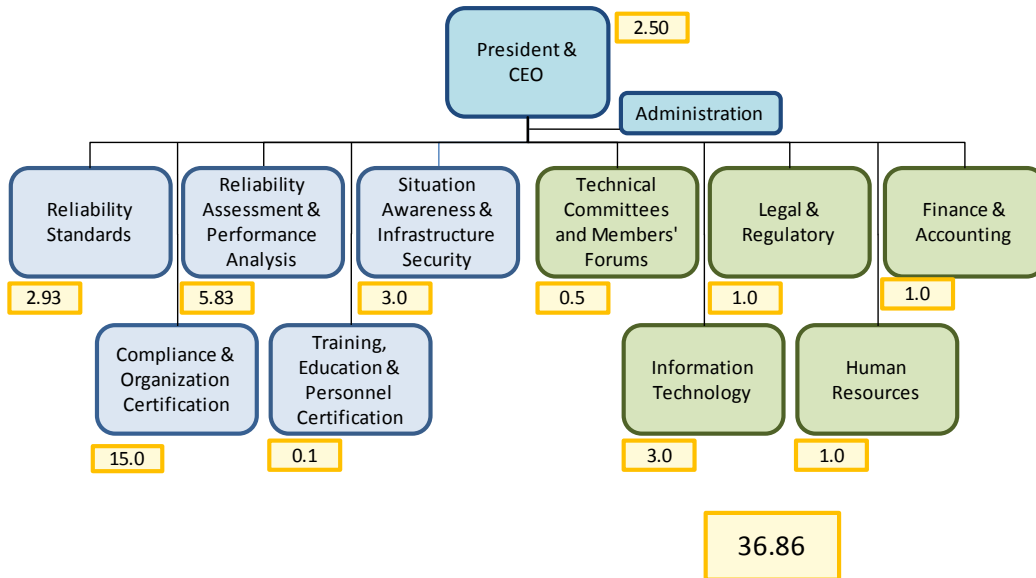
Section D — Additional Financial Statements

NPCC Statement of Activities 2016 Budget		CS Division Total	Criteria Development	Criteria Assessment	General and Administrative
<b>Funding</b>					
<b>ERO Funding</b>					
	ERO Assessments	-	-	-	-
	Penalty Sanctions	-	-	-	-
	<b>Total ERO Funding</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
	Membership Dues	1,060,542	548,020	609,046	(96,525)
	Testing Fees	-	-	-	-
	Services & Software	-	-	-	-
	Workshops	-	-	-	-
	Interest	-	-	-	-
	Miscellaneous	-	-	-	-
	<b>Total Funding (A)</b>	<b>1,060,542</b>	<b>548,020</b>	<b>609,046</b>	<b>(96,525)</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
	Salaries	393,882	173,918	219,964	-
	Payroll Taxes	23,275	10,679	12,596	-
	Benefits	88,412	32,965	55,448	-
	Retirement Costs	144,950	70,435	74,514	-
	<b>Total Personnel Expenses</b>	<b>650,519</b>	<b>287,997</b>	<b>362,523</b>	<b>-</b>
<b>Meeting Expenses</b>					
	Meetings	6,500	3,500	3,000	-
	Travel	46,000	22,000	24,000	-
	Conference Calls	-	-	-	-
	<b>Total Meeting Expenses</b>	<b>52,500</b>	<b>25,500</b>	<b>27,000</b>	<b>-</b>
<b>Operating Expenses</b>					
	Consultants & Contracts	25,000	20,000	5,000	-
	Office Rent	-	-	-	-
	Office Costs	-	-	-	-
	Professional Services	-	-	-	-
	Miscellaneous	2,000	1,000	1,000	-
	Depreciation	8,506	4,253	4,253	-
	<b>Total Operating Expenses</b>	<b>35,506</b>	<b>25,253</b>	<b>10,253</b>	<b>-</b>
	<b>Total Direct Expenses</b>	<b>738,525</b>	<b>338,750</b>	<b>399,776</b>	<b>-</b>
	<b>Indirect Expenses</b>	<b>427,047</b>	<b>213,524</b>	<b>213,524</b>	<b>-</b>
	<b>Other Non-Operating Expenses</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
	<b>Total Expenses (B)</b>	<b>1,165,572</b>	<b>552,273</b>	<b>613,299</b>	<b>-</b>
	<b>Change in Assets</b>	<b>(105,031)</b>	<b>(4,253)</b>	<b>(4,253)</b>	<b>(96,525)</b>
<b>Fixed Assets</b>					
	Depreciation	(8,506)	(4,253)	(4,253)	-
	Computer & Software CapEx	-	-	-	-
	Furniture & Fixtures CapEx	-	-	-	-
	Equipment CapEx	-	-	-	-
	Leasehold Improvements	-	-	-	-
	Allocation of Fixed Assets	-	-	-	-
	<b>Inc (Dec) in Fixed Assets ( C )</b>	<b>(8,506)</b>	<b>(4,253)</b>	<b>(4,253)</b>	<b>-</b>
	<b>TOTAL BUDGET (=B + C)</b>	<b>1,157,066</b>	<b>548,020</b>	<b>609,046</b>	<b>-</b>
	<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>(96,525)</b>	<b>-</b>	<b>-</b>	<b>(96,525)</b>
	<b>FTEs</b>	<b>2.14</b>	<b>1.07</b>	<b>1.07</b>	<b>0</b>

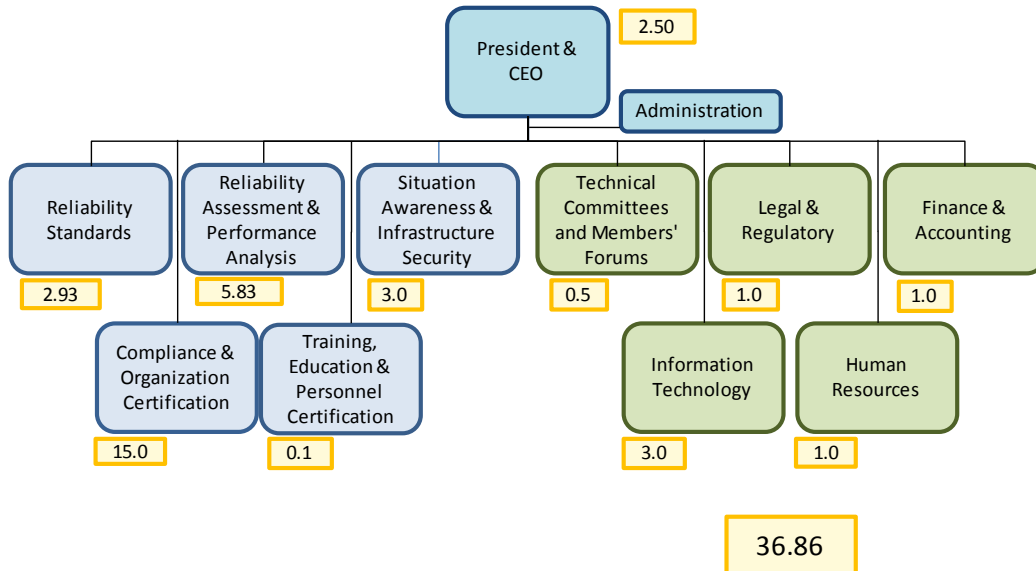


## Appendix A Staff Allocations

2015 Budget Staff Allocations - RE Division

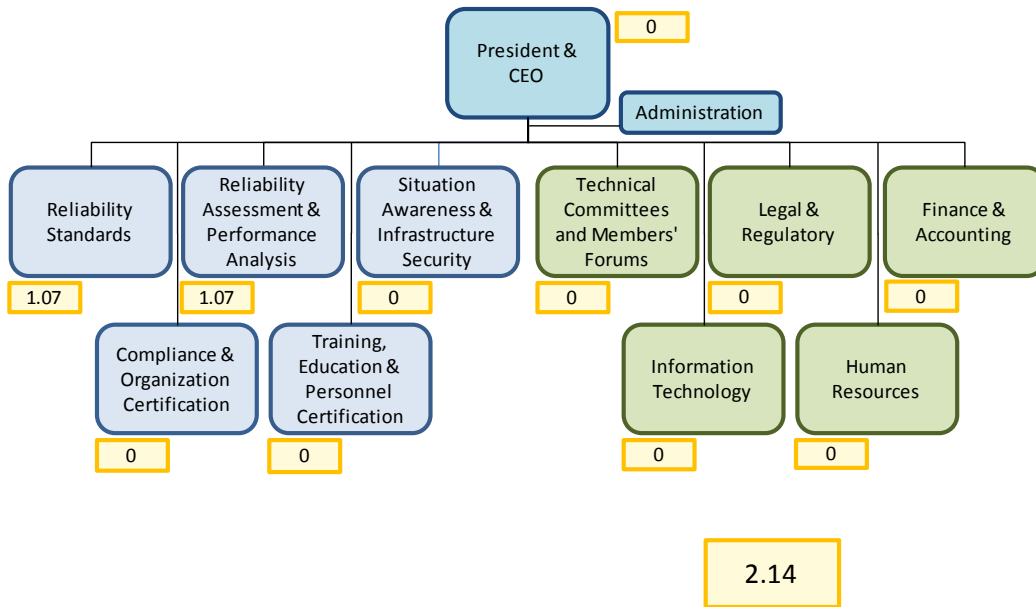


2016 Budget Staff Allocations - RE Division

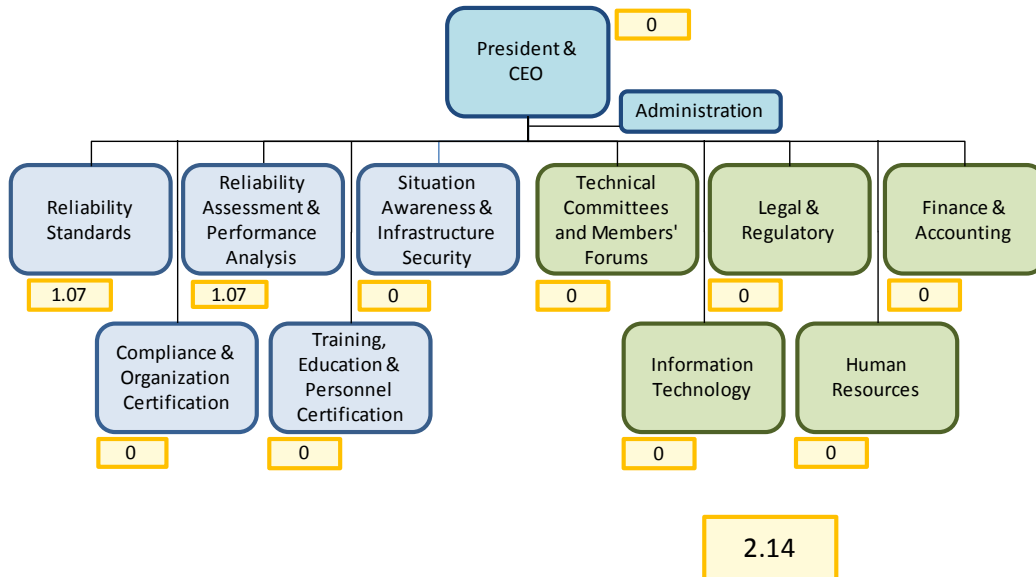


Section D — Additional Financial Statements

2015 Budget Staff Allocations - CS Division



2016 Budget Staff Allocations - CS Division



## Appendix B Acronyms

This section lists acronyms used in this document.

Acronym	Definition
AI	Audits and Investigations
BAA	Balancing Authority Area
BEPWG	BES Exception Process Working Group
BES	Bulk Electric System
BOT	Board of Trustees
BPS	Bulk Power System
CC	Compliance Committee
CCEP	Criteria Compliance Enforcement Program
CDAA	CMEP Data Administration Application
CEAP	Cost Effective Analysis Process
CEH	Continuing Education Hour
CGNC	Corporate Governance and Nominating Committee
CIPC	Critical Infrastructure Protection Committee
CIPIS	Critical Information Protection Information Sharing
CMEP	Compliance Monitoring and Enforcement Program
CORC	Compliance Monitoring and Enforcement and Organization Registration and Certification Program
CUG	Consortium Users Group
DADS	Demand Availability Data System
DADSWG	Demand Response Availability Data System Working Group
ERA	Entity Reliability Assessment
ERAG	Eastern Interconnection Reliability Assessment Group
ERO	Electric Reliability Organization
EUB	Electric Utility Board
EUB	Energy and Utilities Board
FAC	Finance and Audit Committee
FERC	Federal Energy Regulatory Commission
FFT	Find, Fix, Track
GADS	Generator Availability Data System
GADSWG	Generating Availability Data System Working Group
GMD	Geomagnetic Disturbance
HQCMÉ	Hydro-Québec Contrôle des mouvements d'énergie
HSIN	Homeland Security Information Network
ICE	Internal Controls Evaluation
IED	Intelligent Electronic Device
IERP	Independent Experts Review Panel Report
IESO	Independent Electricity System Operator
ISO	Independent System Operator
ITSG	IT Steering Group
LCEFT	Load, Capacity, Energy, Fuels, and Transmission
LMS	Learning Management System
LMWG	Load Modeling Working Group
LSE	Load Serving Entity
MACD	Market Assessment and Compliance Division of the IESO
MDCC	Management Development and Compensation Committee
ME	Mitigation and Enforcement
MMWG	Multi-Regional Modeling Working Group
MOU	Memorandum of Understanding
MPLS	Multiprotocol Label Switching
MVWG	Model Validation Working Group
NAESB	North American Electric Standards Review Board

## Section D — Additional Financial Statements

Acronym	Definition
NEL	Net Energy for Load
NERC	North American Electric Reliability Corporation
NOAV	Notice of Alleged Violation
NOCV	Notice of Confirmed Violation
NOPR	Notice of Proposed Rulemaking
NOPV	Notice of Possible Violation
NPCC	Northeast Power Coordinating Council, Inc.
NRAP	NPCC Reliability Assessment program
NSPI	Nova Scotia Power Incorporated
NSUARB	Nova Scotia Utility and Review Board
OEB	Ontario Energy Board
PAS	Performance Analysis Subcommittee
PC	Pension Committee
PMOS	Project Management Oversight Subcommittee
PSMTF	Protection System Mis-operations Task Force
PSTN	Public Switched Telephone Network
QCMEP	Québec Reliability Standards Compliance Monitoring and Enforcement Program
RADS	Reliability Assessment Data System
RADWG	Reliability Assessment Data Working Group
RAS	Reliability Assessment Subcommittee
RC	Reliability Coordinator
RCC	Reliability Coordinating Committee
RISC	Reliability Issues Steering Committee
RSAW	Reliability Standards Audit Worksheet
RSC	Regional Standards Committee
RTO	Regional Transmission Organization
SAFNR	Situational Awareness-FERC, NERC, Regions
SAMS	System Analysis and Modeling Subcommittee
SAR	Standards Authorization Request
SAT	Systematic Approach to Training
SBS	Standards Balloting System
SCPS	Standards Committee Process Subcommittee
SDT	Standards Drafting Team
SEDS	Spare Equipment Database System
SEDTF	Spare Equipment Database Task Force
SPS	Special Protection Systems
TADS	Transmission Availability Data System
TADSWG	Transmission Availability Data System Working Group
TFCO	Task Force on Coordination of Operation
TFCP	Task Force on Coordination of Planning
TFE	Technical Feasibility Exception
TFIST	Task Force on Infrastructure Security and Technology
TFSP	Task Force on System Protection
TFSS	Task Force on System Studies
TLR	Transmission Loading Relief
TOP	Transmission Operator
UFLS	Underfrequency Load Shedding
UVLS	Under-Voltage Load Shedding
VRF	Violation Risk Factor
VSL	Violation Security Level

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**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2016 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 4**

**DISCUSSION OF COMMENTS RECEIVED**

**DURING DEVELOPMENT OF NERC'S**

**2016 BUSINESS PLAN AND BUDGET**

## ATTACHMENT 4

### DISCUSSION OF COMMENTS RECEIVED DURING DEVELOPMENT OF NERC'S 2016 BUSINESS PLAN AND BUDGET

During the preparation of its 2016 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. Copies of the comments received were posted on NERC's website.<sup>1</sup>

Comments on Draft #1 of the NERC Business Plan and Budget were received from Edison Electric Institute ("EEI"), the Canadian Electricity Association ("CEA"), and the Ontario Independent Electricity System Operator (IESO). There were no written comments received on Draft #2 of the NERC Business Plan and Budget. NERC did receive comments regarding the WECC 2016 business plan and budget and these comments were posted on NERC's website, together with WECC's response. During the August 12, 2015 NERC Finance and Audit Committee meeting presentation recommending approval of NERC, the Regional Entities and WIRAB's 2016 business plans and budgets and associated assessments, additional comments were received from stakeholders which NERC regarded as generally supportive.

During the February 2015 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<sup>2</sup> and will be updated on a quarterly basis. The remainder of this Attachment 12 is comprised of: (1) the NERC Management Response to Comments Received by CEA, IESO, and EEI, and (2) the most recently-updated version of the Accountability Matrix, updated as of August 10, 2015. These documents show NERC's responses and action items to the stakeholder comments received on Draft #1 of the 2016 Business Plan and Budget, as well as NERC's responses and action items to policy input received from stakeholders.

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<sup>1</sup> Copies of the comments received on the posted drafts of the 2016 Business Plan and Budget are available at: <http://www.nerc.com/gov/bot/FINANCE/Pages/2016-NERC-Business-Plan-and-Budget.aspx>. The policy input received is available at: <http://www.nerc.com/gov/bot/Pages/Agenda-Highlights-and-Minutes-.aspx>.

<sup>2</sup> Available at: <http://www.nerc.com/gov/bot/FINANCE/Pages/2016-NERC-Business-Plan-and-Budget.aspx>.

# **NERC Business Plan & Budget – Draft 1**

## **Management Response to Comments Received**

### **by CEA, IESO, and EEI**

#### **1. Canadian Electricity Association**

##### *a. Risk-Based Strategies*

- i. The development and implementation of risk-based strategies has and is expected to continue to produce efficiencies within NERC and the Regional Entity operations that will mitigate the need for additional resource additions to support emerging reliability needs and enhance the ERO's ability to stabilize assessment increases. For example, as noted in NERC's draft business plan and budget, the reduction in legal and enforcement headcount allowed NERC to reallocate open budgeted resources to support emerging reliability assessment needs<sup>3</sup>, as well as provide greater resource support to the ES-ISAC, the need for which has been strongly supported by industry. This resource allocation was all accomplished without increasing NERC's overall FTE budget. In fact, without risk-based strategies, additional resource additions would likely be required.
- ii. In addition to providing efficiencies supporting resource allocation needs, risk-based strategies also reinforce and support the common ERO and industry objective of focusing on the most important factors affecting reliability and mitigating unnecessary costs to registered entities while maximizing the efficiency and effectiveness of NERC and RE resources.

##### *b. Proposed Budget and Assessment Increases*

Further details regarding the allocation of assessments between the U.S., Canada and Mexico is outlined in the final draft of NERC's business plan and budget and accompanying presentation materials for the July 22, 2015 webinar. As further detailed in the cover memo accompanying the posting of the revised draft of NERC's business plan and budget, the net effect of the revisions to NERC's proposed 2016 budget is a total increase of \$537k over 2015. This represents a year-over-year increase of less than 1% and a decrease of \$1.6M (2.3%) from the initial draft. After taking into account preliminary projections of credits to certain Canadian entities pursuant to NERC's Expanded Policy on Allocation of Certain Compliance and Enforcement Costs, the total NERC Canadian assessment will increase by \$35,993 (less than 1%) over the 2015 assessment. In addition, 2016 NERC assessments for the IESO and New Brunswick are projected to decrease below 2015 levels.

##### *c. General and Administrative Department Increase*

- i. The increase in the General and Administrative (G&A) department budget is more a reflection of how NERC's organizational structure has historically been budgeted,

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<sup>3</sup> For a further discussion of these needs please refer to Section A of NERC's business plan and budget under the Reliability Assessment and Performance Analysis department.



and not necessarily about common overhead functions and costs. NERC's G&A includes normal departments you typically see in overhead – accounting, finance, human resources, etc. However, it also includes the Executive, Legal, and IT departments as well as NERC's Chief Reliability Officer (CRO)<sup>4</sup> and support staff for all of those. The Executive, Legal, and IT departments, as well as NERC's CRO, are extensively involved in NERC's day to day operations.

- ii. The company recently put in place a time accounting and cost allocation system that tracks time and allocates costs by activity. With this new system the company can now compare the time, resources and costs to support various major activities to how the company budgets. For example, time and associated costs incurred by standards department personnel, attorneys and other personnel on various standards activities can now be grouped and compared to the traditional departmental budget categories. In general and as expected, preliminary reports show total general and administrative costs running lower than what's reflected in the G&A budget based on work actually being performed by personnel within the G&A departments. Management has been refining activity code descriptions and groupings, as well as training personnel on the appropriate activity codes to record their time. Summary information from these reports will be made available to stakeholders as part of the 2017 business planning cycle.

*d. ES-ISAC*

- i. Senior management is committed to assessing the ability to reallocate resources internally prior to seeking incremental increases in a department's budget or NERC's overall budget. This was clearly the case during 2015 in connection with the re-allocation of existing resources to emerging resources needs in the security (ES-ISAC), reliability assessment (RAPA) and compliance assurance areas without increasing NERC's overall budget.
- ii. Ensuring adequate funding for the ES-ISAC in the future, including the review of funding needs and mechanisms, will continue to be a priority focus for the company throughout the annual business planning process, with ongoing opportunities for stakeholder consultation and input.

*e. Budget Performance and Format*

NERC will continue to provide historic year over year trending of actual to budgeted and projected costs for key functional areas for both NERC and the Regional Entities. This information has historically been provided in connection with the company's submittal of its final recommended business plan and budget to the NERC Finance and Audit Committee. During the year NERC also provides quarterly and year-end variance reports for both NERC and the Regional Entities.

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<sup>4</sup> The CRO has oversight of most operating departments within NERC

## 2. Independent Electricity System Operator

### *a. NERC Program Spending*

- i. The changing nature of the bulk power system, including changing generation resource, are placing increased demands on the resources required to support the work performed by the RAPA and Event Analysis departments. Further information regarding the work being performed by these departments and priorities for 2016 is contained in the departmental descriptions in Section A of the NERC business plan and budget.
- ii. Management has updated the ES-ISAC section of NERC's business plan and budget, has recently hired a Senior Vice President and Chief Security Officer in charge of the ES-ISAC and has allocated additional personnel to support ES-ISAC operations. Management is also working diligently to fill open positions within the ES-ISAC.
- iii. As further described in the company's response above to the comments of the Canadian Electricity Association, the increase in the G&A department budget is more a function of what NERC includes in G&A and how they have been historically budgeted, and less about a true increase in normal overhead costs.
- iv. The Compliance Assurance department increase is primarily due to two factors. First, we transferred auditor positions from the former Critical Infrastructure Department to Compliance Assurance to more closely align audit functions and further separate ES-ISAC operations from NERC's compliance functions. Second, NERC increased the allocation of indirect expenses to this program area based on the increase in departmental FTEs. Indirect costs are allocated among program areas based on the ratios of that department's FTE budget to total budgeted FTEs.
- v. The Compliance Enforcement department budget is expected remain relatively flat. Reductions in personnel were generally offset by increases in overall personnel costs which are included in both direct and indirect expenses.
- vi. With respect to NERC's investment in a document management system, this investment was discussed and reviewed with the NERC Standards Oversight and Technology Committee (SOTC) and Finance and Audit Committee (FAC) in open session in May 2015. Extensive background documentation was included regarding the justification, cost and benefits, as well as benchmarking costs against other companies<sup>5</sup>. With respect to IT investments in general, as part of the annual business plan and budget development process, management also reviews proposed plans and spending with SOTC in open session, including both short and long term projections.

### *b. ERO Programs and Priorities*

- i. NERC and Regional Entity management review total and allocated resources requirements and budgets on an ongoing basis to ensure consistency with statutory and delegated responsibilities. While there are always opportunities for improvement, considerable efforts are undertaken to review and discuss each Regional Entity's

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<sup>5</sup> Please also see references under response to comments regarding IT infrastructure investments.

business plan and budget prior to NERC management recommending approval by the NERC Board of Trustees.

- ii. While budgets vary considerably among regions based upon the nature and scope of the function they perform, a consistent format was developed for presentation of each entities' business plan and budget in order to facilitate year of over year comparisons.
- iii. Each Regional Entity business plan and budget is also subject to review by the Regional Entity board and stakeholders prior to submittal to NERC.
- iv. NERC reviews each Regional Entity business plan and budget on a departmental basis. This review includes, but is not limited to, assessing (1) whether departmental resources are adequate to perform their delegated functions, (2) whether departmental and overall activities are aligned with the ERO Enterprise Strategic Plan, (3) the format and content of financial and supporting schedules, (4) compliance with any outstanding regulatory directives or requirements (5) ensuring no overlap between NERC and Regional Entity capital spending, (6) cost control and efficiency initiatives.
- v. In connection with the NERC FAC review and recommendation of Board approval of the NERC and Regional Entities' annual business plans and budgets, NERC management provides the FAC with a memorandum summarizing its review of the Regional Entity business plans and budgets, together with supporting materials providing comparisons of year over year budgets by entity and department. This information is posted on NERC's website and publicly available. NERC's annual business plan and budget filing with the FERC also includes various NERC and Regional Entity budget metrics.
- vi. NERC and Regional Entity management are committed to continuing to build on these efforts with the goal of further improving the efficiency and effectiveness of ERO Enterprise operations.

*c. IT Infrastructure Investments*

- i. NERC has made considerable efforts over the past two years to increase the transparency and information provided to stakeholders regarding IT capital spending plans and budgets. This information is posted and reviewed publicly as part an open SOTC agenda, prior to finalization of NERC's business plan and budget. The investment in the proposed document management system was subject to extensive review by both the SOTC<sup>6</sup> and FAC<sup>7</sup> at their May 2015 open meetings prior to FAC and Board approval of the use of reserves to initiate this important program in 2015.
- ii. Management will continue to make efforts to maintain transparency and provide detail requiring proposed capital spending needs and resource requirements.

*d. Budget Implications of ES-ISAC Strategic Review*

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<sup>6</sup> See [Standards Oversight and Technology Committee Agenda Package-May 6, 2015](#)

<sup>7</sup> See [Finance and Audit Committee Agenda Package May 6, 2015](#)

- i. Management is not recommending an increase in the 2016 NERC budget or that the current ES-ISAC or CRISP funding model be changed at this time based on the ESCC's findings and recommendations.
  - ii. Consistent with the evaluation of resource allocation in support of all program area needs and priorities, management will undertake an evaluation of both intra and inter departmental needs, work load and priorities in an effort to mitigate the need for incremental increases in NERC's overall or individual department budgets. Despite these efforts, there is always the possibility that departmental and overall NERC resource requirements and funding needs will increase. In these circumstances management will make every effort to make sure that stakeholders, including registered users of the ES-ISAC, are properly informed regarding the need and have an opportunity to provide input.
- e. *Process Improvements*
- i. Management will continue to work with the RISC to ensure alignment between RISC and ERO project and program prioritization timelines and NERC's business plan and budget schedule.
  - ii. A year-end true up report based on audited financial results for both NERC and the Regional Entities is filed with FERC each year on or about May 31<sup>st</sup> and is publicly available on NERC's website under the page entitled [Filings and Orders](#). NERC and the Regional entities review this information in connection with the development of their budgets for the following year. NERC will include information regarding year-end audited results in future drafts of its business plan and budget.
  - iii. Management will continue to provide ongoing reporting regarding Enterprise IT Application development projects, benefits, budgets and spending.
  - iv. Building on the experience gained to date in the development of a number of Enterprise IT applications, management will explore opportunities to further enhance stakeholder engagement in IT capital spending plans and application development.
  - v. Management will recommend that the Regional Entities consider preparation of an accountability matrix similar to NERC.

### **3. Edison Electric Institute**

a. *Alignment of resources with reliability risks*

NERC will continue to ensure that resources are aligned with reliability risk and advancing consistency in multi-regional registered entity compliance and enforcement.

<b>Strategic and Business Planning Input</b>			
<b>Entity / Stakeholder (Date)</b>	<b>Topic</b>	<b>Stakeholder Comment (Abridged version)</b>	<b>Action/Response and Notes</b>
EEI (Jan 2015)	Assessment Stabilization Initiative	The initial principle stated in the January 16 letter seeking policy input expresses a broad financial management principle and should be deleted.	With due consideration of stakeholder input, including but not limited to these comments, NERC Board of Trustee's adopted an amended Working Capital and Operating Reserve Policy at its February 12, 2015 open meeting. This amended policy provides for the establishment of an Assessment Stabilization Reserve. It also sets forth guidelines regarding the criteria to be used in establishing funding requirements, as well as the procedures that will apply to the review and approval of annual contributions and expenditures of funds from this reserve, including opportunities for stakeholder input.
		EEI seeks to understand why NERC or the regions do not have the flexibility today to set reserves policy as part of their budget and business planning process.	With due consideration of stakeholder input, including but not limited to these comments, NERC Board of Trustee's adopted an amended Working Capital and Operating Reserve Policy at its February 12, 2015 open meeting. This amended policy provides for the establishment of an Assessment Stabilization Reserve. It also sets forth guidelines regarding the criteria to be used in establishing funding requirements, as well as the procedures that will apply to the review and approval of annual contributions and expenditures of funds from this reserve, including opportunities for stakeholder input.
Sector 8 and ELCON (Jan 2015)	Assessment Stabilization Initiative	Recommends annual post hoc evaluations to ascertain its success.	With due consideration of stakeholder input, including but not limited to these comments, NERC Board of Trustee's adopted an amended Working Capital and Operating Reserve Policy at its February 12, 2015 open meeting. This amended policy provides for the establishment of an Assessment Stabilization Reserve. It also sets forth

			guidelines regarding the criteria to be used in establishing funding requirements, as well as the procedures that will apply to the review and approval of annual contributions and expenditures of funds from this reserve, including opportunities for stakeholder input.
<b>SM-TDUs/APPA/TAPS/LPPC</b> (Jan 2015)	Assessment Stabilization Initiative	Urge both NERC and the regions to adopt the goals and guiding principles applicable to the assessment stabilization initiative.	With due consideration of stakeholder input, including but not limited to these comments, NERC Board of Trustee’s adopted an amended Working Capital and Operating Reserve Policy at its February 12, 2015 open meeting. This amended policy provides for the establishment of an Assessment Stabilization Reserve. It also sets forth guidelines regarding the criteria to be used in establishing funding requirements, as well as the procedures that will apply to the review and approval of annual contributions and expenditures of funds from this reserve, including opportunities for stakeholder input.
		The initiative should be applied to all section 215 assessments by NERC and each of its regional entities. Further, greater uniformity in the working capital and operating reserve policies of the regional entities is needed.	With due consideration of stakeholder input, including but not limited to these comments, NERC Board of Trustee’s adopted an amended Working Capital and Operating Reserve Policy at its February 12, 2015 open meeting. This amended policy provides for the establishment of an Assessment Stabilization Reserve. It also sets forth guidelines regarding the criteria to be used in establishing funding requirements, as well as the procedures that will apply to the review and approval of annual contributions and expenditures of funds from this reserve, including opportunities for stakeholder input.
		NERC and the Regional Entities should each adopt the proposed Working Capital and Operating Reserve Policy or explain why their specific variations on such policies accomplish consistent outcomes for section 215-related activities.	With due consideration of stakeholder input, including but not limited to these comments, NERC Board of Trustee’s adopted an amended Working Capital and Operating Reserve Policy at its February 12, 2015 open meeting. This amended policy provides for the establishment of an Assessment Stabilization Reserve. It also sets forth guidelines regarding the criteria to be used in establishing

			<p>funding requirements, as well as the procedures that will apply to the review and approval of annual contributions and expenditures of funds from this reserve, including opportunities for stakeholder input.</p>
		<p>Request that the NERC Board review and compare the Working Capital and Operating Reserve Policies employed by each of the Regional Entities, with respect to all funds collected and expended for section 215 purposes.</p>	<p>With due consideration of stakeholder input, including but not limited to these comments, NERC Board of Trustee’s adopted an amended Working Capital and Operating Reserve Policy at its February 12, 2015 open meeting. This amended policy provides for the establishment of an Assessment Stabilization Reserve. It also sets forth guidelines regarding the criteria to be used in establishing funding requirements, as well as the procedures that will apply to the review and approval of annual contributions and expenditures of funds from this reserve, including opportunities for stakeholder input.</p>
<p><b>CEA</b> (Jan 2015)</p>	<p>Assessment Stabilization Initiative</p>	<p>Requests recognition that the important effort to stabilize assessments is being pursued in parallel with the foundational objective of stabilizing budgets towards a trend that more fully reflects and comports with the current and future operating realities of registered entities.</p>	<p>With due consideration of stakeholder input, including but not limited to these comments, NERC Board of Trustee’s adopted an amended Working Capital and Operating Reserve Policy at its February 12, 2015 open meeting. This amended policy provides for the establishment of an Assessment Stabilization Reserve. It also sets forth guidelines regarding the criteria to be used in establishing funding requirements, as well as the procedures that will apply to the review and approval of annual contributions and expenditures of funds from this reserve, including opportunities for stakeholder input.</p>
		<p>Requests explicit reference in the guiding principles and goals to the broader budgetary roadmap and trajectory of the ERO.</p>	<p>With due consideration of stakeholder input, including but not limited to these comments, NERC Board of Trustee’s adopted an amended Working Capital and Operating Reserve Policy at its February 12, 2015 open meeting. This amended policy provides for the establishment of an Assessment Stabilization Reserve. It also sets forth guidelines regarding the criteria to be used in establishing funding requirements, as well as the procedures that will</p>

			apply to the review and approval of annual contributions and expenditures of funds from this reserve, including opportunities for stakeholder input.
		Recommends re-including the goal of the “percent change in consolidated assessments on a region by region basis more closely tracking the percent change in consolidated budgets on a region by region basis,” as we believe greater convergence between assessment changes and budget changes is an appropriate target for NERC at this phase in its maturation as the ERO.	With due consideration of stakeholder input, including but not limited to these comments, NERC Board of Trustee’s adopted an amended Working Capital and Operating Reserve Policy at its February 12, 2015 open meeting. This amended policy provides for the establishment of an Assessment Stabilization Reserve. It also sets forth guidelines regarding the criteria to be used in establishing funding requirements, as well as the procedures that will apply to the review and approval of annual contributions and expenditures of funds from this reserve, including opportunities for stakeholder input.
		Encourages attentiveness to achieving the desired result with respect to assessments levied on Canadian registered entities (especially in view of such variables as the different treatment of penalty funds in Canada and the U.S.).	With due consideration of stakeholder input, including but not limited to these comments, NERC Board of Trustee’s adopted an amended Working Capital and Operating Reserve Policy at its February 12, 2015 open meeting. This amended policy provides for the establishment of an Assessment Stabilization Reserve. It also sets forth guidelines regarding the criteria to be used in establishing funding requirements, as well as the procedures that will apply to the review and approval of annual contributions and expenditures of funds from this reserve, including opportunities for stakeholder input.
		Encourages consistency between NERC and Regional Entity reserve policies, to the greatest extent possible.	With due consideration of stakeholder input, including but not limited to these comments, NERC Board of Trustee’s adopted an amended Working Capital and Operating Reserve Policy at its February 12, 2015 open meeting. This amended policy provides for the establishment of an Assessment Stabilization Reserve. It also sets forth guidelines regarding the criteria to be used in establishing funding requirements, as well as the procedures that will apply to the review and approval of annual contributions



			and expenditures of funds from this reserve, including opportunities for stakeholder input.
<b>SERC</b> (Jan 2015)	Assessment Stabilization Initiative	Recognizing that working capital and operating reserve policies should be designed complementary to a corporation’s business model and risk tolerances, NERC and each of the Regional Entities should be at liberty to design respective policies appropriate for each corporation’s unique situations.	With due consideration of stakeholder input, including but not limited to these comments, NERC Board of Trustee’s adopted an amended Working Capital and Operating Reserve Policy at its February 12, 2015 open meeting. This amended policy provides for the establishment of an Assessment Stabilization Reserve. It also sets forth guidelines regarding the criteria to be used in establishing funding requirements, as well as the procedures that will apply to the review and approval of annual contributions and expenditures of funds from this reserve, including opportunities for stakeholder input.
<b>CEA</b>	Business Plan & Budget (Draft 1 comments)	Overall, against the backdrop of widespread recognition of NERC’s ever-strengthening maturation and the threshold into the risk-based frontier having been irreversibly crossed in 2015, CEA members were hoping for signs in the 2016 budget which would point towards NERC positioning itself to achieve enduring efficiencies and savings. CEA believes the Draft Budget leaves much to be desired in this regard and, accordingly, would urge budgetary reductions to be incorporated into the next draft.	<p>The development and implementation of risk-based strategies has and is expected to continue to produce efficiencies within NERC and the Regional Entity operations that will mitigate the need for additional resource additions to support emerging reliability needs and enhance the ERO’s ability to stabilize assessment increases. For example, as noted in NERC’s draft business plan and budget, the reduction in legal and enforcement headcount allowed NERC to reallocate open budgeted resources to support emerging reliability assessment needs<sup>8</sup>, as well as provide greater resource support to the ES-ISAC, the need for which has been strongly supported by industry. This resource allocation was all accomplished without increasing NERC’s overall FTE budget. In fact, without risk-based strategies, additional resource additions would likely be required.</p> <p>In addition to providing efficiencies supporting resource allocation needs, risk-based strategies also reinforce and</p>

<sup>8</sup> For a further discussion of these needs please refer to Section A of NERC’s business plan and budget under the Reliability Assessment and Performance Analysis department.

			support the common ERO and industry objective of focusing on the most important factors affecting reliability and mitigating unnecessary costs to registered entities while maximizing the efficiency and effectiveness of NERC and RE resources.
		CEA believes that at this stage in NERC's history – with its major start-up and growth phases firmly situated in the rear-view mirror – annual budget increases (if any) should be in a lower or flatter range than the proposed one. CEA wishes to see more clear and compelling signs from NERC that it is sharing in the belt-tightening exercises which are standard practice for utilities under present fiscal and regulatory constraints.	Further details regarding the allocation of assessments between the U.S., Canada and Mexico is outlined in the final draft of NERC's business plan and budget and accompanying presentation materials for the July 22, 2015 webinar. As further detailed in the cover memo accompanying the posting of the revised draft of NERC's business plan and budget, the net effect of the revisions to NERC's proposed 2016 budget is a total increase of \$537k over 2015. This represents a year-over-year increase of less than 1% and a decrease the initial draft. After taking into account preliminary projections of credits to certain Canadian entities pursuant to NERC's Expanded Policy on Allocation of Certain Compliance and Enforcement Costs, the total NERC Canadian assessment will increase by approximately \$24k (less than 1%) over the 2015 assessment. In addition, 2016 NERC assessments for the IESO and New Brunswick are projected to decrease below 2015 levels.
		In terms of any recommendations emerging from the review which may have an upward impact on NERC's budget, CEA would call for NERC to first seek to identify potential efficiencies within existing ES-ISAC and NERC budgets as a way of fulfilling any such incremental resource needs. Similarly, CEA encourages early action on any recommendations to dial-back ES-ISAC activities which stakeholders have identified as yielding little or no value to improving industry's security posture.	Senior management is committed to assessing the ability to reallocate resources internally prior to seeking incremental increases in a department's budget or NERC's overall budget. This was clearly the case during 2015 in connection with the re-allocation of existing resources to emerging resources needs in the security (ES-ISAC), reliability assessment (RAPA) and compliance assurance areas without increasing NERC's overall budget.

		In light of the ESCC's strategic review, CEA acknowledges that the time is ripe for a coordinated review amongst applicable governmental authorities, NERC, and industry on the appropriate funding and governance model for the ES-ISAC's non-CRISP activities going forward.	Ensuring adequate funding for the ES-ISAC in the future, including the review of funding needs and mechanisms, will continue to be a priority focus for the company throughout the annual business planning process, with ongoing opportunities for stakeholder consultation and input.
		Potential enhancements that CEA would welcome include more trending of NERC program area results over previous years, and evaluations of budget aspects such as forecast accuracy and validity of assumptions. A clearer understanding of NERC's record of success in fulfilling its budgetary goals and business planning assumptions could serve as a valuable tool for evaluating organizational performance.	NERC will continue to provide historic year over year trending of actual to budgeted and projected costs for key functional areas for both NERC and the Regional Entities. This information has historically been provided in connection with the company's submittal of its final recommended business plan and budget to the NERC Finance and Audit Committee. During the year NERC also provides quarterly and year-end variance reports for both NERC and the Regional Entities.
<b>EEl</b>	Business Plan & Budget (Draft 1 comments)	EEl recommends that NERC continue to sharpen the measurement of corresponding system reliability risks, balance potential resource needs for any a timely manner.	NERC will continue to ensure that resources are aligned with reliability risk and advancing consistency in multi-regional registered entity compliance and enforcement.
		EEl looks for important progress in managing the multi-regional registered entity area of compliance and enforcement, where these types of entities' experiences with the regions offer a critical metric for understanding consistent process applications.	NERC will continue to ensure that resources are aligned with reliability risk and advancing consistency in multi-regional registered entity compliance and enforcement.
<b>IESO</b>	Business Plan & Budget (Draft 1 comments)	The IESO continues to have concerns that the enduring efficiency gains anticipated as part of the move towards "steady state", the expected completion in 2015 and 2016 of major initiatives such as facilitating transition to CIPv5 and CIP-014, and adoption of risk-based methods, are not evident in the Draft	The changing nature of the bulk power system, including changing generation resource, are placing increased demands on the resources required to support the work performed by the RAPA and Event Analysis departments. Further information regarding the work being performed by these departments and priorities for 2016 is contained in the departmental descriptions in Section A of the NERC business

		<p>2016 BPB. The lack of enduring efficiency gains is clear given NERCs total budgeted FTE is forecast to remain flat from 2015 to 2016 (going from 192.3. to 192.48) and is forecast to remain flat through 2018.</p>	<p>plan and budget.</p> <p>Management has updated the ES-ISAC section of NERC’s business plan and budget, has recently hired a Senior Vice President and Chief Security Officer in charge of the ES-ISAC and has allocated additional personnel to support ES-ISAC operations. Management is also working diligently to fill open positions within the ES-ISAC.</p> <p>As further described in the company’s response above to the comments of the Canadian Electricity Association, the increase in the G&amp;A department budget is more a function of what NERC includes in G&amp;A and how they have been historically budgeted, and less about a true increase in normal overhead costs.</p> <p>The Compliance Assurance department increase is primarily due to two factors. First, we transferred auditor positions from the former Critical Infrastructure Department to Compliance Assurance to more closely align audit functions and further separate ES-ISAC operations from NERC’s compliance functions. Second, NERC increased the allocation of indirect expenses to this program area based on the increase in departmental FTEs. Indirect costs are allocated among program areas based on the ratios of that department’s FTE budget to total budgeted FTEs.</p> <p>The Compliance Enforcement department budget is expected remain relatively flat. Reductions in personnel were generally offset by increases in overall personnel costs which are included in both direct and indirect expenses.</p> <p>With respect to NERC’s investment in a document management system, this investment was discussed and</p>
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			<p>reviewed with the NERC Standards Oversight and Technology Committee (SOTC) and Finance and Audit Committee (FAC) in open session in May 2015. Extensive background documentation was included regarding the justification, cost and benefits, as well as benchmarking costs against other companies. With respect to IT investments in general, as part of the annual business plan and budget development process, management also reviews proposed plans and spending with SOTC in open session, including both short and long term projections.</p>
		<p>With NERC and the ERO reaching the organizational maturity milestone, it is an appropriate time for NERC management to lead an ERO-wide review and benchmarking of spending on Programs and priorities.</p>	<p>NERC and Regional Entity management review total and allocated resources requirements and budgets on an ongoing basis to ensure consistency with statutory and delegated responsibilities. While there are always opportunities for improvement, considerable efforts are undertaken to review and discuss each Regional Entity's business plan and budget prior to NERC management recommending approval by the NERC Board of Trustees.</p> <p>While budgets vary considerably among regions based upon the nature and scope of the function they perform, a consistent format was developed for presentation of each entities' business plan and budget in order to facilitate year of over year comparisons. Each Regional Entity business plan and budget is also subject to review by the Regional Entity board and stakeholders prior to submittal to NERC. NERC reviews each Regional Entity business plan and budget on a departmental basis. This review includes, but is not limited to, assessing (1) whether departmental resources are adequate to perform their delegated functions, (2) whether departmental and overall activities are aligned with the ERO Enterprise Strategic Plan, (3) the format and content of financial and supporting schedules, (4) compliance with any outstanding regulatory directives or requirements (5)</p>

			<p>ensuring no overlap between NERC and Regional Entity capital spending, (6) cost control and efficiency initiatives.</p> <p>In connection with the NERC FAC review and recommendation of Board approval of the NERC and Regional Entities' annual business plans and budgets, NERC management provides the FAC with a memorandum summarizing its review of the Regional Entity business plans and budgets, together with supporting materials providing comparisons of year over year budgets by entity and department. This information is posted on NERC's website and publicly available. NERC's annual business plan and budget filing with the FERC also includes various NERC and Regional Entity budget metrics.</p> <p>NERC and Regional Entity management are committed to continuing to build on these efforts with the goal of further improving the efficiency and effectiveness of ERO Enterprise operations.</p>
		<p>The IESO recommends NERC examine and report back to stakeholders the business risks, costs and benefits to extend the life of existing tools and processes and to delay further effort to implement proposed all new, replacement or refreshed tools, including the new Document Management System (entirely, or certain lower priority modules) and other tools investment planned through 2018.</p>	<p>NERC has made considerable efforts over the past two years to increase the transparency and information provided to stakeholders regarding IT capital spending plans and budgets. This information is posted and reviewed publicly as part an open SOTC agenda, prior to finalization of NERC's business plan and budget. The investment in the proposed document management system was subject to extensive review by both the SOTC and FAC at their May 2015 open meetings prior to FAC and Board approval of the use of reserves to initiate this important program in 2015.</p> <p>Management will continue to make efforts to maintain transparency and provide detail requiring proposed capital spending needs and resource requirements.</p>
		<p>The IESO recommends that NERC commit to</p>	<p>Management is not recommending an increase in the 2016</p>

		fund any potential capital or operating budget needs related to actions taken through the existing overall NERC budget envelope (capital and operating budgets, excluding reserves).	NERC budget or that the current ES-ISAC or CRISP funding model be changed at this time based on the ESCC's findings and recommendations.
		ES-ISAC registrants include NERC member entities and non-NERC entities, and the IESO encourages the ES-ISAC effort to add non-NERC registrants to continue enhancing the value of ES-ISAC member services. Coinciding with the ESCC Strategic Review, the IESO recommends that it is an appropriate time to examine the ES-ISAC funding model to ensure it is aligned with membership and corresponding services and benefits.	Consistent with the evaluation of resource allocation in support of all program area needs and priorities, management will undertake an evaluation of both intra and inter departmental needs, work load and priorities in an effort to mitigate the need for incremental increases in NERC's overall or individual department budgets. Despite these efforts, there is always the possibility that departmental and overall NERC resource requirements and funding needs will increase. In these circumstances management will make every effort to make sure that stakeholders, including registered users of the ES-ISAC, are properly informed regarding the need and have an opportunity to provide input.
		The IESO recommends NERC look at enhancing RISC and ERO project and Program prioritization timelines to align with the BPB schedule.	Management will continue to work with the RISC to ensure alignment between RISC and ERO project and program prioritization timelines and NERC's business plan and budget schedule.
		It would be very informative for stakeholders if the draft BPB also included prior year actual Program spending based on the prior year audited results.	A year-end true up report based on audited financial results for both NERC and the Regional Entities is filed with FERC each year on or about May 31 <sup>st</sup> and is publicly available on NERC's website under the page entitled <a href="#">Filings and Orders</a> . NERC and the Regional entities review this information in connection with the development of their budgets for the following year. NERC will include information regarding year-end audited results in future drafts of its business plan and budget.
		Starting with the 2016 BPB, the IESO recommends NERC use enhanced capital	Management will continue to provide ongoing reporting regarding Enterprise IT Application development projects,

		project implementation reporting to provide member entities on an ongoing basis, analysis of ERO investments measured against achievement of benefits as defined at the outset of the projects.	benefits, budgets and spending.
		The IESO recommends NERC and the ERO enhance capital planning and budgeting processes to secure greater stakeholder understanding and buy-in of the business case and merits of all new capital programs.	Building on the experience gained to date in the development of a number of Enterprise IT applications, management will explore opportunities to further enhance stakeholder engagement in IT capital spending plans and application development.
		Starting with the 2016 BPB year and in support of the ERO Strategic Plan, the IESO recommends that NERC require all Regional Entities to prepare a similar Accountability Matrix and that these Matrices be published on the NERC website along with copies of all stakeholder comments received on Regional Entity BPBs.	Management will recommend that the Regional Entities consider preparation of an accountability matrix similar to NERC.
<b>Entity / Stakeholder (Date)</b>	<b>Topic</b>	<b>Stakeholder Comment (Abridged version)</b>	<b>Action/Response and Notes</b>
<b>EI</b> (Apr 2015)	Future of Standards Development	NERC should maintain achievement of steady-state as a high priority corporate goal.	NERC agrees that this is a high priority.
		EI members strongly desire to turn their focus to the execution, innovation, operational excellence and compliance without having technical subject matter experts distracted by an unnecessary cycle of Standards development to address the concerns of a few over the needs of the many.	NERC agrees and the latest Reliability Standards Development Plan takes a deliberate approach to standards review and modification.
		EI requests that the Standards Committee and NERC Staff work together to bring an enhanced periodic review approach (including	The latest Reliability Standards Development Plan takes a deliberate approach to standards review and modification through enhanced periodic reviews. After the final



		a timeline) for the review of Standards consistent with EEI’s comments to the Board of Trustees for their endorsement in the November Board meeting.	comments, a projected project schedule for 2016 will be provided.
CIP Version 5 Transition		In the time remaining prior to April 2016, EEI urges NERC to make use of the Section 11 process for development of CIP V.5 compliance guidance documents.	NERC has engaged the industry and Regional Entity Stakeholder group (Version 5 Transition Advisory Group (“V5TAG”)) to identify, prioritize and expedite the delivery of guidance via the Section 11 process.
		Any NERC statements interpreting ambiguous language in the CIP Standards should acknowledge the ambiguity, note the NERC position as one possible position and instruct auditors to use compliance discretion and not find a different position as a noncompliance merely because it is a different position.	NERC agrees and notes that the guidance being developed and provided is one possible solution, and other solutions may be acceptable.
		Longer term, EEI strongly encourages NERC to commit to a process that will strategically review the purpose and application of compliance guidance processes within both NERC and the regions.	In response to the May 2015 meetings, a strategic review is occurring related to guidance. The Board supported the creation, with the MRC, of a Compliance Guidance Team to consider alternative approaches to provide compliance guidance and develop a proposal for the purpose, development, use, and maintenance of compliance guidance in the future. Progress on the project will be reported at the August 2015 MRC meeting, with a final proposal expected to be presented at the November meetings.
Compliance Guidance		To the extent the subject matter experts on an SDT are available, the individuals best suited to such work, EEI strongly encourages NERC to seek their advice and guidance in developing responses prior to issuing the final FAQ.	NERC agrees that SDT members can provide valuable input. Further, NERC is working to resolve compliance expectations during standards development while the standard is open and can be modified.
		EEI further requests that the issuance of FAQs should be limited to those issues that NERC strongly believes require additional clarity.	NERC agrees that FAQs should be focused on issues that require clarity.
		EEI member companies have differing views	The Compliance Guidance Team is considering the purpose

		on the value and usefulness of RSAWs. The strategic review of compliance guidance should include RSAWs, including their purpose and effectiveness, and the methods used to develop them.	of RSAWs. Progress on the project will be reported at the August 2015 MRC meeting, with a final proposal expected to be presented at the November meetings.
IRC ISO/RTO (Apr 2015)	Future of Standards Development	<p>Recommends that the NERC Standards Committee address the following standards development issues and bring back a work plan to the MRC:</p> <ul style="list-style-type: none"> <li>• There are not clear, defined, specific criteria that are utilized to evaluate the reliability need for a standards project. Thus, the IRC suggests development of such criteria and implementation of industry voting to move a Standards Authorization Request (SAR) proposal forward into Standards Development.</li> <li>• There is not a quality assurance evaluation to ensure that Standards Review Teams (SRTs) and Standards Drafting Teams (SDTs) are applying the result-based standard and Paragraph 81 criteria.</li> <li>• Existing guidance of what is a “good” standard are not always adhered to by the SDTs and SRTs. Further, there is not clear, specific guidance that identifies the elements and characteristics of a “good” standard.</li> </ul>	NERC staff and the Standards Committee are addressing these issues through the Standards Committee Process Subcommittee.
	CIP Version 5 Transition	The approach of creating new versions of the Critical Infrastructure Protection (CIP) standards is cumbersome and not a proficient tool to address ever-evolving risks. Hence, the IRC recommends that NERC explore whether there are tools (other than reliability	NERC recognizes that a reliability standard is not always the best solution and will continue to consider other tools to address emerging risks.

		standards) that would provide the agility needed to better suit evolving risks such as cybersecurity.	
	Compliance Guidance	The NERC Compliance and Certification Committee (CCC) should review new Reliability Standards Audit Worksheets (RSAWs) for quality and scope before they are posted for industry comment. A process developed by a sub-committee of the CCC has not yet been implemented and should be revisited to determine feasibility for implementation.	The Compliance Guidance Team is considering the purpose of RSAWs and any potential role for the CCC. Progress on the project will be reported at the August 2015 MRC meeting, with a final proposal expected to be presented at the November meetings.
<b>Merchant Electricity Generators and Electricity Marketers</b> (Apr 2015)	Future of Standards Development	Standards Requirements that do not support reliability should be retired.	NERC agrees and the enhanced periodic reviews will take a closer look at this.
		There should be an effort to make standards performance based which would resolve the majority of the standard issues.	NERC agrees that performance-based standards are one of the preferred types of standards, but other types are sometimes appropriate.
	CIP Version 5 Transition	It is imperative that compliance guidance issued by NERC is consistent with the standards and ROP, is issued in a timely fashion, is well communicated, and considers the audience.	NERC has engaged V5TAG to identify, prioritize and expedite the delivery of guidance via the Section 11 process.
		Believe NERC needs to develop a better framework around issuing guidance and making clear what authority these staff have to provide guidance and answers to industry questions.	In response to the May 2015 meetings, a strategic review is occurring related to guidance. The Board supported the creation, with the MRC, of a Compliance Guidance Team to consider alternative approaches to provide compliance guidance and develop a proposal for the purpose, development, use, and maintenance of compliance guidance in the future. Progress on the project will be reported at the August 2015 MRC meeting, with a final proposal expected to be presented at the November meetings.
		G&Ms encourage NERC to employ sufficient resources so that full, timely, and appropriate guidance is generated over the next year	NERC has engaged V5TAG to identify, prioritize and expedite the delivery of guidance via the Section 11 process.

		leading into the April 16, 2016 compliance date for Version 5.	
	Compliance Guidance	Compliance and audit guidance should be developed in a clear and transparent manner with a quality control process that provides an opportunity for stakeholder input.	In response to the May 2015 meetings, a strategic review is occurring related to guidance. The Board supported the creation, with the MRC, of a Compliance Guidance Team to consider alternative approaches to provide compliance guidance and develop a proposal for the purpose, development, use, and maintenance of compliance guidance in the future. Progress on the project will be reported at the August 2015 MRC meeting, with a final proposal expected to be presented at the November meetings.
	Recordings of NERC meetings	NERC needs to develop a clear policy for recording NERC meetings including Board, MRC, committee, subcommittee, working group, and task force meetings.	NERC is working on a protocol for recording NERC meetings.
NAGF (Apr 2015)	Future of Standards Development	To improve reliability NERC should continue to focus on the changing grid – the technology, the fuels and the provision of essential reliability services. In lieu of the development of new standards, NERC should continue working with the industry to improve reliability as has occurred through the winterization efforts and the continuing improvement of governor frequency response.	NERC agrees and will incorporate any appropriate standards recommendations from the IVGTF and the ERSTF.
	CIP Version 5 Transition	The NAGF cautions that the continual change in guidance hinders the development of implementation plans and projects that as the industry implements Version 5, issues will arise and additional clarification, perhaps through the Standards Development process, will be required.	NERC encourages stakeholders to submit the appropriate requests for interpretation, standards authorization requests, etc., as appropriate to address perceived shortcomings or omissions in the current version(s) of the Reliability Standards.
	Compliance Guidance	The NAGF would recommend that compliance guidance continue to be developed and	In response to the May 2015 meetings, a strategic review is occurring related to guidance. The Board supported the

		communicated. The NAGF also recommends the guidance be developed with industry input to ensure greater regulatory certainty and the process to collect compliance evidence is pragmatic.	creation, with the MRC, of a Compliance Guidance Team to consider alternative approaches to provide compliance guidance and develop a proposal for the purpose, development, use, and maintenance of compliance guidance in the future. Progress on the project will be reported at the August 2015 MRC meeting, with a final proposal expected to be presented at the November meetings.
<b>NRECA</b> (Apr 2015)	Future of Standards Development	NRECA urges NERC to pursue a “steady state” as planned within the next year. Further, we request NERC to support a “steady state” for at least the next three years to allow industry to fully implement the existing FERC-approved reliability standards, and to allow FERC to rule on standards that have been filed for their approval.	NERC agrees and the latest Reliability Standards Development Plan takes a deliberate approach to standards review and modification.
	CIP Version 5 Transition/Compliance Guidance	NRECA is concerned that NERC is regressing back toward Compliance Application Notices (CANs) and we strongly recommend against going in that direction.	In response to the May 2015 meetings, a strategic review is occurring related to guidance. The Board supported the creation, with the MRC, of a Compliance Guidance Team to consider alternative approaches to provide compliance guidance and develop a proposal for the purpose, development, use, and maintenance of compliance guidance in the future. Progress on the project will be reported at the August 2015 MRC meeting, with a final proposal expected to be presented at the November meetings.
		NRECA encourages NERC to work with industry under Section 11 of the SPM to issue guidance for reliability standards that do not interpret or change the applicability of the standards.	In response to the May 2015 meetings, a strategic review is occurring related to guidance. The Board supported the creation, with the MRC, of a Compliance Guidance Team to consider alternative approaches to provide compliance guidance and develop a proposal for the purpose, development, use, and maintenance of compliance guidance in the future. Progress on the project will be reported at the August 2015 MRC meeting, with a final proposal expected to be presented at the November meetings.
	CIP-014-1	Encourages NERC to continue its outreach	NERC, through direct outreach and via coordinated events

	Implementation	efforts in this area including providing lessons learned during the implementation of CIP-014-1.	with the Regions, will continue to provide outreach on CIP-014, including support for lessons learned that may be identified.
<b>Sector 8 and ELCON</b> (Apr 2015)	Future of Standards Development	NERC needs to (1) preserve the gains achieved so far in addressing BES risks and now focus on new potential risks, and (2) increase the automated collection of data and process monitoring.	NERC agrees and will incorporate any suggested standards improvements from the RISC.
	CIP Version 5 Transition	NERC needs to further develop the tie-in to the Risk-based Compliance and Monitoring Program.	Activities pertaining to both compliance and enforcement are conducted in the context of risk based activities, and that is the frame of reference as guidance is developed and published.
	Compliance Guidance	There needs to be greater transparency and consistency between the guidance provided to registered entities and that provided to ERO Enterprise compliance and enforcement staff. The development of compliance guidance should also begin with the subject matter experts of the SDTs. Feedback from the industry should be an on-going effort.	In response to the May 2015 meetings, a strategic review is occurring related to guidance. The Board supported the creation, with the MRC, of a Compliance Guidance Team to consider alternative approaches to provide compliance guidance and develop a proposal for the purpose, development, use, and maintenance of compliance guidance in the future. Progress on the project will be reported at the August 2015 MRC meeting, with a final proposal expected to be presented at the November meetings.
<b>SM-TDUs</b> (Apr 2015)	Future of Standards Development	NERC and stakeholders should work together to set priorities through the Reliability Standards Development Plan and address remaining reliability gaps, deficiencies in quality and clarity, lessons learned from compliance implementation, and identification of standards that impose a compliance burden that is disproportionate to their reliability benefits.	NERC agrees and the latest Reliability Standards Development Plan takes a deliberate approach to standards review and modification.
	CIP Version 5 Transition	SM-TDUs recommend the following specific steps for guidance development:  1. The Version 5 Transition Advisory Group (VTAG) should be retained as the	The V5TAG remains in place to identify, prioritize and expedite the delivery of guidance via the Section 11 process. Group activity is coordinated by NERC to facilitate effective and timely efforts.

		<p>mechanism for industry input into CIP V5 lessons learned,</p> <ol style="list-style-type: none"> <li>2. NERC guidance development should follow the NERC Standard Processes Manual Section 11 process,</li> <li>3. NERC should provide executive leadership and direction to the VTAG process,</li> <li>4. The group should utilize structured facilitation to resolve conflicts,</li> <li>5. An escalation procedure to address issues that require interpretation through the standards development process should be adopted,</li> <li>6. More effective methods for disseminating the results should be adopted, and</li> <li>7. NERC should form a separate CIP V5 low impact asset technical advisory group.</li> </ol>	<p>Stakeholders are encouraged to submit the appropriate requests for interpretation, standards authorization requests, etc. as appropriate to address perceived shortcomings or omissions in the current version(s) of the Reliability Standards.</p> <p>Public distribution of guidance occurs through listservs and on NERC’s web site.</p> <p>A “low impact technical advisory group” is a possible approach to addressing issues pertinent to entities that are subject to those requirements.</p>
	CIP-014-1 Implementation	The legal enforcement date for Requirement R2 is 90 days after the responsible transmission owner completes and distributes its reliability assessment under R1. SM-TDUs request that NERC clarify that this 90-day clock begins to run on October 1, 2015, the enforcement date for R1.	R2 is enforceable 90 days after the effective date of 10/1/2015.
	Compliance Guidance	An understanding of what “ERO independence” means with regard to compliance and enforcement is needed. We urge NERC to recognize and embrace the benefits of transparent and collaborative processes for guidance development and the importance of regulatory certainty for registered entities.	In response to the May 2015 meetings, a strategic review is occurring related to guidance. The Board supported the creation, with the MRC, of a Compliance Guidance Team to consider alternative approaches to provide compliance guidance and develop a proposal for the purpose, development, use, and maintenance of compliance guidance in the future. Progress on the project will be reported at the August 2015 MRC meeting, with a final proposal expected to be presented at the November meetings.
	Phase I Special	SM-TDUs encourage NERC to conduct	It is NERC’s plan to conduct these additional special

	Assessment of EPA's Clean Power Plan	additional special assessments as state and regional clean power implementation plans are developed and then submitted to EPA for approval.	assessments.
<b>Sector 12</b> (Apr 2015)	Future of Standards Development	While the State Government Sector does not prescribe a particular methodology for determining whether NERC Reliability Standards are achieving a level of diminishing returns, we respectfully (and continue to) request that cost be considered when conducting that analysis.	NERC agrees and a core value included in its three-year strategic plan is to ensure the legitimate interests of all parties, including costs imposed on registered entities, are duly considered and balanced in the development of policies and reliability standards, and in its programs and operations.
	CIP Version 5 Transition	Respectfully requests that NERC be willing to provide education to State Commissions and NARUC on this endeavor when requested.	NERC is willing to accommodate such requests.
	CIP-014-1 Implementation	Respectfully requests that NERC be willing to provide education to State Commissions and NARUC on this endeavor when requested.	NERC is open to facilitate training and education efforts where possible in support of industry awareness.
<b>CEA</b> (Apr 2015)	Future of Standards Development	Additional initiatives should be avoided at this stage and recent standards development reforms should be granted an adequate cushion of time to demonstrate their effectiveness.	NERC agrees and the latest Reliability Standards Development Plan takes a deliberate approach to standards review and modification.
	CIP Version 5 Transition	At this stage, CEA would encourage more engaged consultation by NERC staff with the Critical Infrastructure and Protection Committee as compliance guidance is developed, and acknowledgement that approaches set forth in guidance materials do not represent an exclusive set of options for achieving compliance.	The V5TAG continues to identify, prioritize and expedite the delivery of guidance via the Section 11 process. That group includes members with a broad range of perspectives and the process provides the opportunity for industry input.  Guidance documents include a standard disclaimer stating that "there may be other legitimate ways to fulfill the obligations of the requirements that are not expressed within this supporting document."
	Compliance Guidance	CEA members are generally finding the standards guidance issued by NERC to be	Guidance is not part of the standard, and NERC agrees that is not legally binding, and cannot expand the requirements in a



		valuable. One issue of concern, however, is the characterization of guidance as “part of” a standard. CEA believes that guidance should neither expand the requirements in a standard, nor be legally binding upon a registered entity, nor serve as the <i>de facto</i> litmus test against which compliance is assessed.	standards.
<b>FRCC</b> (Apr 2015)	Compliance Guidance	Guidance, in whatever form it is provided, should be used by the compliance and enforcement staff as just one way of meeting a reliability standard requirement. And, all Regional Entities should accept this guidance as an acceptable means of meeting the intent of a requirement.	In response to the May 2015 meetings, a strategic review is occurring related to guidance. The Board supported the creation, with the MRC, of a Compliance Guidance Team to consider alternative approaches to provide compliance guidance and develop a proposal for the purpose, development, use, and maintenance of compliance guidance in the future. Progress on the project will be reported at the August 2015 MRC meeting, with a final proposal expected to be presented at the November meetings.
		Guidance should refrain from defining terms – definitions should only be developed through the standards development process.	NERC agrees that compliance guidance cannot provide definitions of terms.
<b>MRO</b> (Apr 2015)	Future of Standards Development	The ERO should strive to maintain a set of standards that is technically sufficient to ensure the secure and reliable operations of the bulk power system; active and continuous improvement processes should be used to both distill existing standards and add new standards to address gaps, where appropriate.	NERC agrees and the latest Reliability Standards Development Plan takes a deliberate approach to standards review and modification.
	CIP Version 5 Transition	The focus should be on those standards and requirements that are ambiguous or in conflict with other standards and requirements.	Guidance documents are intended to convey lessons learned from NERC’s various CIP version 5 transition activities. The VSTAG is helping to identify, prioritize, and expedite development of guidance and outreach until any standards that are ambiguous or in conflict with other standards can be revised through a standards development project.

<b>NPCC</b> (Apr 2015)	Future of Standards Development	NPCC recommends that NERC establish a high threshold for the development of any additional standards, informed by reliability metrics trending data, reliability assessments, events analysis and compliance monitoring, and reflective of emerging risks to the international, interconnected bulk power systems.	NERC agrees and the latest Reliability Standards Development Plan takes a deliberate approach to standards review and modification.
		NPCC recommends that as a part of the periodic review of existing standards that standards be assessed for their continued reliability need, technological neutrality, and their applicability to evolving industry resources, organizational structures, and operations.	NERC agrees and the enhanced periodic reviews will include this evaluation.
	CIP Version 5 Transition	NPCC recommends that NERC utilize the Section 11 process in the Standards Manual as the primary approach to addressing transition issues.	The V5TAG continues to identify, prioritize and expedite the delivery of guidance via the Section 11 process.
		NPCC recommends that if staff developed memorandum are necessary to resolve irreconcilable differences, drafts be circulated for industry comment prior to issuance.	The April 2015 memoranda have been withdrawn.
		NPCC recommends that, in order to enhance the efficient delivery of consistent guidance, NERC's planned Security Reliability Program outreach on CIP V5 transition be coordinated with already scheduled Regional Entity industry-focused workshops.	Security Reliability Program outreach events are scheduled with Regional Entity activities whenever possible. Contact <a href="mailto:TransitionProgram@nerc.net">TransitionProgram@nerc.net</a> for additional information.
	<b>SERC</b> (Apr 2015)	Future of Standards Development	Consideration should be given to having a more robust framework that guides the establishment of need for a new or revised reliability standard.
CIP Version 5		While progress has been made, significant	The V5TAG consists of stakeholder representatives and has

	Transition	technical questions remain to be clarified. Consideration should be given to identifying and prioritizing topics from a stakeholder perspective.	established priorities in the guidance it is developing.
		Due to the lead time required to implement the comprehensive changes necessary to support CIP Version 5 and given the limited early guidance, the ERO Enterprise should explore options to recognize earnest efforts by registered entities to be fully compliant, particularly during the period immediately after the effective date.	That is one of the strengths of the risk-based compliance monitoring and enforcement program’s design.
	CIP-014-1 Implementation	The ERO Enterprise needs to review its data confidentiality and protection policies and procedures. Absolute confidentiality and protection of information received in performance of compliance enforcement authority duties must exist.	NERC prioritizes data confidentiality and protection.
<b>EI</b> (Jan 2015)	CIP Version 5 Transition	The ERO needs to provide support to quicken the pace of releasing the Lessons Learned. Development of Lessons Learned should remain focused and build on group consensus to move forward. Once the group reaches consensus on an issue, the Lesson Learned or FAQ should move forward to final under Section 11 of the Standards Process Manual. Ambiguous language should not lead to interpretations outside of the NERC standards development process.	The Section 11 process will continue to be used as the primary method for developing guidance. Stakeholders are encouraged to submit the appropriate requests for interpretation, standards authorization requests, etc. as appropriate to address issues beyond the authority or ability of the Transition Advisory team to address.
		NERC should initiate a transition pilot as soon as feasible for the CIP-003-6 requirements applicable to assets with Low Impact BES Cyber Systems.	The focus during the initial stages of the guidance development process has necessarily been on entities with High and Medium Impact BES Cyber Systems. As those efforts continue and mature, further guidance especially applicable to entities with Low Impact BES Cyber Systems

			will be developed.
CIP-014-1 Implementation	To the extent NERC considers development of targeted compliance guidance documents, EEI requests that the activity takes place through the NERC Standards Committee.	NERC, through direct outreach and via coordinated events with the Regions and NERC subcommittees, will continue to provide CIP-014 lessons learned and guidance to industry.	
	EEI asks that NERC coordinate with NATF activities focused on CIP-014.	NERC will continue to provide feedback to NATF and other industry groups on activities focused on CIP-014.	
	To the extent that NERC and the regions make commitments to conduct implementation-related support activities for CIP-014, EEI believes that NERC needs to communicate a clear plan and specific actions that are carefully coordinated.	NERC, through direct outreach and via coordinated events with the Regions, will continue to provide outreach on CIP-014, including support for lessons learned that may be identified.	
	To the maximum extent possible, EEI asks that training aim at clear and consistent regional compliance practices.	NERC will continue to provide ERO compliance and enforcement personnel training on CIP-014 compliance monitoring practices.	
	EEI opposes the development of a dedicated Physical Security Standard Working Group (PSSWG) organized under the NERC CIPC and thinks it will be counterproductive. EEI seeks to understand who, when, and how NERC requested this unusual approach for CIP-014.	NERC understands that the NERC CIPC created the group based in part on the CIPC's role in facilitating implementation of standards by developing reference documents, among other activities, and it is intended to be an ad-hoc group available to lend industry expertise when and if needed in the development of guidance.	
	ERSTF Measures Framework Report	ERSTF should remain focused on identifying the needs of the Bulk Electric System while remaining neutral with regard to specific solutions to meet these needs.	NERC agrees and will continue to support the assessment while remaining neutral and independent.
RSAW Development	Work on the CIP V5 RSAWs should continue in collaboration with the CIP V5 Revisions drafting team; updated drafts should be posted for stakeholders comment with a reasonable amount of time given for stakeholders for review; and a report on the lessons learned from the CIP RSAW	The work on the CIP V5 RSAWs continued in collaboration with the CIP V5 Revisions drafting team and were posted for stakeholder comment. While NERC does not plan to provide a report on the lessons learned to the SC, a key lesson learned is that RSAWs should be developed during the standards development process.	

		development should be submitted to the Standards Committee following completion of the RSAWs.	
	111(d) Assessments	Encourages NERC to continue this important assessment of the EPA CPP, including continued outreach and input from the stakeholder subject matter experts, such as those on the Planning Committee’s subcommittee.	NERC will continue this assessment and outreach to stakeholders.
<b>Bonneville Power Administration</b> (Jan 2015)	CIP Version 5 Transition	BPA recommends that NERC thoroughly vet (via NATF, WICF, etc.) their transition approaches with industry stakeholders prior to releasing instructions/guidance on key compliance transition decisions.	The V5TAG continues to identify, prioritize and expedite the delivery of guidance via the Section 11 process.
<b>IRC ISO/RTO</b> (Jan 2015)	CIP Version 5 Transition	Recommends that items pending that have not yet been tried under the Implementation Study be turned over to volunteer entities to work with their Regional Entities to help expedite the drafting of additional guidance for implementation.	Responsible Entities with recommendations and experiences that may warrant a “Lesson Learned” are welcome to submit the information to NERC, where it will be presented to the V5TAG for review and possible publication.
		Asks NERC to consider opening up the CIP Version 5 auditor training in mid-2015 and Q1 of 2016 for industry members to attend.	NERC provided some combined industry and auditor training in the Spring of 2015, and it provides similar training at the semi-annual Standards and Compliance workshops.
	ERSTF Measures Framework Report	Asks NERC to utilize its volunteer stakeholder experts like those serving on the Operating Committee, the Planning Committee and their subcommittees to devise appropriate metrics for a proof of concept.	This work is being conducted by the Essential Reliability Services Task Force (ERSTF), which was formed by the Planning and Operating Committees.
<b>Merchant Electricity Generators and Electricity Marketers</b> (Jan 2015)	CIP Version 5 Transition	CIP V.5 FAQ and Lessons Learned should get a final technical review and recommends that the CIPC would best serve as a final technical reviewer.	The V5TAG includes subject matter experts who also represent a wide range of groups and activities. The CIPC has designated a member to be a part of the V5TAG to facilitate such review and input.
		Notifications under CIP V. 5 should be coordinated for consistent messaging and	The V5TAG includes subject matter experts who also represent a wide range of groups and activities. As

		implementation by all transmission organizations in all Regions.	appropriate, the representative of a particular group (e.g., CIPC) can use colleagues for additional input and coordination.
		Encourage NERC to employ sufficient resources so that full, timely, and appropriate guidance is generated over the next year leading into the April 16, 2016 compliance date for Version 5.	The V5TAG continues to identify, prioritize and expedite the delivery of guidance via the Section 11 process.
	ERSTF Measures Framework Report	ERS Reports should acknowledge market implications and consider the appropriateness of the traditional frequency response curve for assessment.	NERC agrees and this is part of the ERSTF's approach in developing the report.
<b>NAGF</b> (Jan 2015)	CIP Version 5 Transition	Outreach and communication programs have already proven to be helpful. However, guidance being delivered in these sessions is then being reversed or changed through the issuance of Lessons Learned and/or FAQ documents. Would like to see better coordination/timing of responses so as not to be in a constant state of changing our implementation programs every time guidance changes.	The V5TAG continues to identify, prioritize and expedite the delivery of guidance via the Section 11 process.
	ERSTF Measures Framework Report	Recommendations based on the ERS measures should tie to system level performance, and that both the interpretation of the measures and future mitigating actions are likely to be specific to the balancing areas and systems. Recommendations should also be technology neutral.	NERC agrees and will continue to support the assessment while remaining neutral and independent.
<b>NRECA</b> (Jan 2015)	CIP Version 5 Transition	NRECA urges NERC to ensure that Lessons Learned resulting from the transition program are issued as soon as possible.	The V5TAG continues to identify, prioritize and expedite the delivery of guidance via the Section 11 process.
		To the extent language in the CIP Version 5	The Section 11 process will continue to be used as the

		standards (and future versions) is unclear and not able to be addressed by Lessons Learned, the standard development process must be used to address these issues.	primary method for developing guidance. Stakeholders are encouraged to submit the appropriate requests for interpretation, standards authorization requests, etc. as appropriate to address issues beyond what the V5TAG can address.
		Recommends that NERC initiate a transition program focusing on CIP-003-6 requirements applicable to assets with Low Impact BES Cyber Systems.	The focus during the initial stages of the guidance development process has necessarily been on entities with High and Medium Impact BES Cyber Systems. As those efforts continue and mature, further guidance especially applicable to entities with Low Impact BES Cyber Systems will be developed.
	CIP-014-1 Implementation	Encourages NERC to hold additional webinars and an in-person workshop on the key requirements in the standard.	NERC, through direct outreach and via coordinated events with the Regions, will continue to provide outreach on CIP-014, including support for lessons learned that may be identified.
	RSAW Development	Requests that NERC leadership provide industry with an update on their thinking on the effectiveness of RSAWs and whether the intent is to use them for the long-term as a part of the Compliance Monitoring and Enforcement Program reforms currently being implemented.	The Compliance Guidance Team is considering the purpose of RSAWs. Progress on the project will be reported at the August 2015 MRC meeting, with a final proposal expected to be presented at the November meetings.
<b>Sector 8 and ELCON</b> (Jan 2015)	CIP Version 5 Transition	Recommend additional outreach efforts targeted at registered entities with only low impact systems.	The focus during the initial stages of the guidance development process has necessarily been on entities with High and Medium Impact BES Cyber Systems. As those efforts continue and mature, further guidance especially applicable to entities with Low Impact BES Cyber Systems will be developed.
		Encourage NERC to continue to stress the importance of coordination between the RSAW drafting team for CIP V5 and the Standards Drafting Team as this will provide additional industry guidance.	The development of the CIP V5 RSAWs included all members of the CIP V5 Revisions SDT.
	ERSTF Measures	ELCON is not convinced that the industry and	NERC does not assess societal tradeoffs and is solely focused

	Framework Report	reliability regulatory agencies are presenting an effective accounting of the real societal tradeoffs that the transition to renewables will bring. NERC will need to be part of the education process.	on the reliability of the BPS.
<b>SM-TDUs/APPA/TAPS/LPPC</b> (Jan 2015)	CIP Version 5 Transition	Registered Entities need regulatory certainty in order to comply with NERC Standards. A lack of clarity continues to exist with regards to many aspects of CIP Version 5 compliance expectations. This has significant impact on Registered Entities, the Regional Entities and NERC due to the implementation timeline. This is an untenable situation which must be recognized and addressed with a sense of urgency.	The V5TAG continues to identify, prioritize and expedite the delivery of guidance via the Section 11 process, including either risk-based or regulatory solutions that can be implemented in a time sensitive manner.  The Section 11 process will continue to be used as the primary method for developing guidance. Stakeholders are encouraged to submit the appropriate requests for interpretation, standards authorization requests, etc. as necessary to address issues beyond what the V5TAG can address.
		We urge NERC to work with industry stakeholders to timely complete and issue Lessons Learned developed through the Transition Study process. We also request assurance that the regions will follow this guidance.	The V5TAG continues to identify, prioritize and expedite the delivery of guidance via the Section 11 process.  NERC and the Regional Entities support the guidance.
		While Lesson Learned guidance is still in development, we urge discretion in the ERO's initial audit approach as both industry and auditors incorporate the Lesson Learned into their CIP programs.	NERC supports successful transition to CIP Version 5, and the risk-based compliance monitoring and enforcement program design provides tools to support successful transition.
		A Transition Study should be conducted as soon as practicable for the new Low Impact asset requirements that become enforceable on April 1, 2017.	A "low impact asset transition study" is a possible approach to identifying pertinent issues for entities that are subject to those requirements. A study or other outreach or coordination for low impact asset requirements is under evaluation.
	CIP-014-1 Implementation	The Commission's directive to eliminate or define "widespread" from Requirement R1	NERC encourages stakeholders to submit the appropriate requests for interpretation, standards authorization



		could create substantial difficulty in meeting the October 1, 2015 implementation date. We request regulatory forbearance where a Registered Entity's initial identification of BES risk differs from what NERC and the Commission subsequently require.	requests, etc. as appropriate to address perceived shortcomings, challenges or omissions in the current version(s) of the Reliability Standards.
		Urge NERC to work with stakeholders to timely complete each of the implementation program elements, to ensure that Registered Entities can meet each of the compliance deadlines set forth in the approved standard, beginning on October 1, 2015.	NERC, through direct outreach and via coordinated events with the Regions, will continue to provide outreach on CIP-014, including support for lessons learned that may be identified.
	ERSTF Measures Framework Report	The ERSTF needs to formalize the process to document results and identify best practices.	This is the goal of the report being developed by the ERSTF.
<b>State Government</b> (Jan 2015)	CIP-014-1 Implementation	State regulators must balance the importance of these standards against the cost of compliance, among other important factors, and we ask that NERC be mindful of this guidance when implementing the physical security standards.	NERC, through direct outreach and via coordinated events with the Regions, will continue to provide outreach on CIP-014, including support for lessons learned that may be identified.
	ERSTF Measures Framework Report	NERC should consider effective ways to relay the Task Force's technical outcomes to policymakers. As a suggestion, NERC could include a more policy-oriented executive summary with all materials produced by this Task Force.	A supplemental report will be developed targeted to policymakers and regulators.
<b>CEA</b> (Jan 2015)	CIP-014-1 Implementation	Encourages a robust focus on ensuring that the implementation program does not deviate from the original expectations articulated by governmental authorities and NERC.	As with any reliability standard, the Regional Entities will leverage the principles of risk-based compliance monitoring when evaluating CIP-014-1.
	ERSTF Measures Framework Report	Urges NERC to present the ERSTF's final recommendations with the key audience of policymakers and regulators in mind.	A supplemental report will be developed targeted to policymakers and regulators.

<b>MRO</b> (Jan 2015)	CIP Version 5 Transition	During 2015, outreach needs to target smaller entities that did not have a CIP program under Version 3.	NERC agrees that smaller entities that are “new” to CIP should be afforded ample outreach. Looking ahead, NERC will continue activities such as Small Group Advisory Sessions, workshops from NERC or various regions, Security Reliability Program (SRP) engagements, and resources at NERC’s “CIP V5 Transition Page”. Guidance especially applicable to entities with Low Impact BES Cyber Systems will be developed as well.
		To ensure an effective transition, Regional Entities must focus on mitigating issues of non-compliance and appropriately exercise discretion to treat minimal risk matters as Compliance Exceptions.	NERC agrees that compliance efforts of both the ERO Enterprise and the industry should be focused on higher risk concerns. Activities pertaining to both compliance and enforcement, by definition, are conducted in the context of risk based activities, and that is the frame of reference as guidance is developed and published.
	CIP-014-1 Implementation	More emphasis needs to be placed on training and certifying ERO staff to ensure staff’s competency.	NERC will continue to provide ERO compliance and enforcement personnel training on CIP-014 compliance monitoring practices.
	ERSTF Measures Framework Report	The ERSTF should leverage the work of other relevant NERC task forces and working groups (e.g., Variable Generation Task Force, Frequency Working Group).	The ERSTF is working closely with other groups and liaisons through other committees.
		We should share the existing Framework Report with regulators and policy makers to make them aware of the potential technical issues associated with policy decisions and seek their input to guide our work so it meets their needs.	NERC is actively engaged in governmental outreach at the state, federal, and provincial levels.
<b>NPCC</b> (Jan 2015)	CIP Version 5 Transition	Recommends that NERC’s guidance be focused on clarification of the application of the standard and on how compliance will be assessed, and not on how to comply.	The V5TAG continues to identify, prioritize and expedite the delivery of guidance via the Section 11 process.
		Recommends that the Chair and/or Vice Chair of the CIP SDT be included in the development of the associated RSAWs, as an	The development of the CIP V5 RSAWs included all members of the CIP V5 Revisions SDT.

		appropriate implementation of NERC's commitment to include industry participants in the drafting of RSAWs.	
	ERSTF Measures Framework Report	Recommends the continued efforts of the ERSTF to propose measures and corresponding analysis to further inform items identified as 'Under Review' in the ERSTF Framework.	The ERSTF will continue these efforts.
<b>SERC</b> (Jan 2015)	CIP Version 5 Transition	Encourages the ERO Enterprise to be more timely in the guidance provided.	The V5TAG continues to identify, prioritize and expedite the delivery of guidance via the Section 11 process.
		NERC is encouraged to be transparent in its CIP V5 and CIP-014 implementation activities and use existing processes (such as the standards process) when possible rather than creating alternative approaches.	NERC is committed to transparency.
		Repeating previous policy input from the SERC Board, consideration may need to be given to special situations where a registered entity is not able to meet the effective date without significant undue hardship, such as transitions involving safe and reliable nuclear facility operation. Specifically, accessing nuclear switch yards is difficult and work can only be done typically when the nuclear plant is offline during a scheduled refueling outage. An update on NERC's consideration of this input would be instructive.	The risk-based compliance monitoring and enforcement program design provides tools to address such risks.

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2016 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 5**

**CALCULATION OF ADJUSTMENTS  
THE AESO 2016 NERC ASSESSMENT,  
THE IESO 2016 NERC ASSESSMENT,  
THE NEW BRUNSWICK 2016 NERC ASSESSMENT,  
AND THE QUEBEC 2016 NERC ASSESSMENT**

Alberta Electric System Operator Adjustment  
Credit for NERC Compliance Costs

	Total NERC Compliance Budget AESO NEL Allocation 2016	Total NERC Compliance Budget AESO NEL Allocation 2015			2016 FTEs	
					Total	Credit
<b>NERC Compliance Budget</b>						
Compliance Assurance	\$ 9,410,738	\$ 5,737,572			19.36	17.86
Analysis and Certification	4,632,667	4,864,863	400	Assurance	10.14	9.00
Enforcement	5,292,943	5,806,866	406 &500	Analysis & Certification	12.22	12.22
Event Analysis	5,353,823	4,203,169	404	Enforcement	11.06	5.50
			402	Event Analysis	52.78	44.58
<b>Total Compliance Budget, including Fixed Assets</b>	<b>\$ 24,690,171</b>	<b>\$ 20,612,470</b>				
AESO NEL Share (2014)	1.382%	1.350%				84.5%
<b>AESO Proportional Share of Compliance Costs, including Fixed Assets</b>	<b>\$ 341,218</b>	<b>\$ 278,268</b>				
<b>Net Total Staff</b>	<b>52.78</b>	<b>47.83</b>				
% Credit	84.5%	87.50%	400 & 406	Operations & Investigations	19.60	15.00
\$ Credit	\$ 20,854,260	\$ 18,035,373	500	Org Registration	3.84	3.84
			402	Event Analysis	9.38	8.00
			404	Enforcement	15.01	15.01
<b>AESO credit for compliance costs</b>	<b>\$ 288,206</b>	<b>\$ 243,478</b>			47.83	41.85
<b>Additional Credits</b>						87.5%
Credit for SAFNR	\$ 438,200	\$ 459,609				
	\$ 438,200	\$ 459,609				
AESO NEL Share (2014)	1.382%	1.350%				
<b>AESO credit for additional costs not allocated</b>	<b>\$ 6,056</b>	<b>\$ 6,205</b>				
<b>Total AESO Credit</b>	<b>\$ 294,262</b>	<b>\$ 249,682</b>	\$ 44,580	17.9%		
<b>NERC Assessment</b>	<b>\$ 514,324</b>	<b>\$ 511,339</b>	\$ 2,985	0.6%		

**IESO Adjustment  
Credit for NERC Compliance Costs**

	<u>2016</u>	<u>2015</u>	<u>Change</u>		<u>2016 FTEs</u>	
<b>NERC Compliance Budget</b>						
Compliance Assurance	\$ 9,410,738	\$ 5,737,572				
Analysis and Certification	4,632,667	4,864,863	400	Assurance	19.36	16.00
Enforcement	5,292,943	5,806,866	406 & 500	Analysis & Certification	10.14	9.00
Event Analysis	5,353,823	4,203,169	404	Enforcement	12.22	12.22
			402	Event Analysis	11.06	5.50
<b>Total Compliance Budget, including Fixed Assets</b>	<b>24,690,171</b>	<b>20,612,470</b>			<b>52.78</b>	<b>42.72</b>
IESO NEL Share (2014)	3.082%	3.137%				80.9%
<b>IESO Proportional Share of Compliance Costs, including Fixed Assets</b>	<b>\$ 760,951</b>	<b>\$ 646,517</b>				
<b>Total Compliance Staff</b>	<b>52.78</b>	<b>47.83</b>				
% Credit	80.9%	83.3%				
\$ Credit	\$ 615,912	\$ 538,381				
<b>Additional Credit for SAFNR Contract</b>	<b>\$ 438,200</b>	<b>\$ 459,609</b>				
IESO NEL Share (2014)	3.082%	3.137%				
<b>Additional Credit for SAFNR Contract</b>	<b>\$ 13,505</b>	<b>\$ 14,416</b>				
<b>IESO Credit - NERC Costs, including Fixed Assets</b>	<b>\$ 629,417</b>	<b>\$ 552,797</b>	<b>76,620</b>		<b>15.52%</b>	
<b>Total NERC Assessment</b>	<b>\$ 1,173,912</b>	<b>\$ 1,215,106</b>	<b>\$ (41,194)</b>		<b>-3.98%</b>	

**New Brunswick Adjustment  
Credit for NERC Compliance Costs**

	<u>2016</u>	<u>2015</u>	<u>Change</u>		<u>2016 FTEs</u>	
					<u>Total</u>	<u>Credit</u>
<b>NERC Compliance Budget</b>						
Compliance Assurance	\$ 9,410,738	\$ 5,737,572			400	Assurance 19.36 16.00
Analysis and Certification	4,632,667	4,864,863			406 & 500	Analysis & Certification 10.14 9.00
Enforcement	5,292,943	5,806,866			404	Enforcement 12.22 12.22
Event Analysis	5,353,823	4,203,169			402	Event Analysis 11.06 5.50
	<u>24,690,171</u>	<u>20,612,470</u>				<u>52.78</u> <u>42.72</u>
<b>Total Compliance Budget</b>						
						80.9%
New Brunswick NEL Share (2014)	<u>0.308%</u>	<u>0.314%</u>				
<b>NB Proportional Share of Compliance Costs, including Fixed Assets</b>	<b>\$ 76,046</b>	<b>\$ 64,694</b>				
<b>Total Compliance Staff</b>	<u>52.78</u>	<u>47.83</u>				
% Credit (42.72 of 52.78 FTEs)	80.94%	87.46%				
\$ Credit (42.72 of 52.78 FTEs)	<b>\$ 61,551</b>	<b>\$ 56,579</b>				
<b>Additional Credits - SAFNR Contract</b>	<b>\$ 438,200</b>	<b>\$ 459,609</b>				
New Brunswick NEL Share (2014)	<u>0.308%</u>	<u>0.311%</u>				
<b>Additional Credits for SAFNR</b>	<b>\$ 1,350</b>	<b>\$ 1,429</b>				
<b>New Brunswick Credit - NERC Costs, including Fixed Assets</b>	<u><b>\$ 62,901</b></u>	<u><b>\$ 58,008</b></u>	<u><b>\$ 4,893</b></u>	<u><b>8.4%</b></u>		
<b>NERC Assessment</b>	<b>\$ 117,079</b>	<b>\$ 118,912</b>	<b>\$ (1,833)</b>	<b>-1.5%</b>		

2016 Quebec Adjustment  
Credit for NERC Compliance Costs

	Total NERC Compliance Budget Quebec NEL Allocation				
<b>NERC Compliance Budget</b>					
Compliance Assurance	\$	9,410,738			
Analysis and Certification		4,632,667			
Enforcement		5,292,943			
<b>Total Costs, including Fixed Assets</b>	<b>\$</b>	<b>19,336,348</b>			
Quebec NEL Share (2014)		4.173%	400	Assurance	19.36
<b>Quebec Proportional Share of Compliance Costs, including Fixed Assets</b>	<b>\$</b>	<b>806,906</b>	406 & 500	Analysis & Certification	10.14
			404	Enforcement	12.22
<b>Total Compliance Staff</b>		<b>41.72</b>			<b>41.72</b>
% Credit (28.22 of 41.72 FTEs)		67.64%			
\$ Credit (28.22 of 41.72 FTEs)	\$	13,079,380	400 & 406	Regional Oversight	19.60
<b>Quebec Credit (Proportional share of all costs x % Credit)</b>	<b>\$</b>	<b>545,803</b>	500	CompAnalysis&Cert	3.84
			402	Event Analysis	9.38
			404	Enforcement	15.01
					<b>47.83</b>
					<b>33.26</b>
<b>Proportional Share of NERC Compliance Costs paid by Régie de l'énergie</b>	<b>\$</b>	<b>261,103</b>			
<b>Proportional Share of NPCC CORC Program paid by Régie de l'énergie</b>	<b>\$</b>	<b>1,132,825</b>			
<b>2016 Billing to Régie de l'énergie for Compliance Program Costs-NERC and NPCC</b>	<b>\$</b>	<b>1,393,928</b>			
<b>Additional Credits</b>					
Event Analysis - \$5,353,823	\$	2,691,434	402	Event Analysis	11.06
SAFNR		438,200			50%
	<b>\$</b>	<b>3,129,634</b>			
Quebec NEL Share (2014)		4.173%			
<b>Quebec credit for additional costs not allocated</b>	<b>\$</b>	<b>130,600</b>			
<b>Total Quebec Credit for 2016</b>	<b>\$</b>	<b>676,402</b>			
<b>Total NERC Assessment in Quebec</b>	<b>\$</b>	<b>1,765,517</b>	<b>\$ 7,715</b>		0.4%
Proportional Share of NERC Compliance Costs paid by Régie de l'énergie		261,103	(4,366)		-1.6%
NERC Assessment paid by Hydro Quebec		1,504,414	12,082		0.8%

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2015 Quebec Adjustment  
Credit for NERC Compliance Costs

	Total NERC Compliance Budget Quebec NEL Allocation				
<b>NERC Compliance Budget</b>					
Compliance Assurance	\$	5,737,572			
Analysis and Certification		4,864,863			
Enforcement		5,806,866			
Event Analysis		4,203,169			
<b>Total Costs, including Fixed Assets</b>	<b>\$</b>	<b>20,612,470</b>			
Quebec NEL Share (2013)		4.228%			
<b>Quebec Proportional Share of Compliance Costs, including Fixed Assets</b>	<b>\$</b>	<b>871,477</b>			
<b>Total Compliance Staff</b>		<b>47.83</b>			
% Credit (33.26 of 47.83 FTEs)		69.54%			
\$ Credit (33.26 of 47.83 FTEs)	\$	14,333,488			
<b>Quebec Credit (Proportional share of all costs x % Credit)</b>	<b>\$</b>	<b>606,007</b>			
<b>Proportional Share of NERC Compliance Costs paid by Régie de l'énergie</b>	<b>\$</b>	<b>265,470</b>			
<b>Proportional Share of NPCC CORC Program paid by Régie de l'énergie (Refer to Column I-2, page 75, 2015 NPCC Business Plan and Budget)</b>	<b>\$</b>	<b>1,087,229</b>			
<b>2015 Billing to Régie de l'énergie for Compliance Program Costs-NERC and NPCC</b>	<b>\$</b>	<b>1,352,699</b>			
<b>Additional Credits</b>					
Credit for SAFNR	\$	459,609			
	<b>\$</b>	<b>459,609</b>			
Quebec NEL Share (2013)		4.228%			
<b>Quebec credit for additional costs not allocated</b>	<b>\$</b>	<b>19,432</b>			
<b>Total Quebec Credit for 2015</b>	<b>\$</b>	<b>625,439</b>			
<b>Total NERC Assessment in Quebec</b>	<b>\$</b>	<b>1,757,802</b>			
Proportional Share of NERC Compliance Costs paid by Régie de l'énergie		265,470			
NERC Assessment paid by Hydro Quebec		1,492,332			



**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2016 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 6**

**METRICS COMPARING  
REGIONAL ENTITY OPERATIONS  
BASED ON  
THE 2016 BUDGETS**

**2016 Metrics for Budget Submissions**

<b>Budget Metrics</b>		<b>FRCC</b>	<b>MRO</b>	<b>NPCC<sup>5</sup></b>	<b>RF</b>	<b>SERC</b>	<b>SPP RE</b>	<b>Texas RE</b>	<b>WECC</b>
1	Number of registered entities	52	136	218	228	191	109	197	347
2	Number of registered functions	208	458	487	510	584	347	409	979
3	Total NEL (GWh)	224,666	288,744	641,246	914,112	1,028,847	230,481	341,256	867,474,309
4	NEL (GWh) per registered entity	4,320	2,123	2,941	4,009	5,387	2,115	1,732	2,499,926
5	Total ERO Funding <sup>1</sup>	\$ 6,709,457	\$ 11,027,812	\$ 14,416,196	\$ 20,115,459	\$ 14,379,486	\$ 8,819,751	\$ 9,897,448	\$ 27,015,834
6	ERO Funding per registered entity	\$ 129,028	\$ 81,087	\$ 66,129	\$ 88,226	\$ 75,285	\$ 80,915	\$ 50,241	\$ 77,855
7	ERO Funding per registered function	\$ 32,257	\$ 24,078	\$ 29,602	\$ 39,442	\$ 24,622	\$ 25,417	\$ 24,199	\$ 27,595
8	Total Budget <sup>2</sup>	\$ 7,261,527	\$ 11,354,641	\$ 15,072,998	\$ 19,367,209	\$ 15,866,845	\$ 10,095,819	\$ 11,782,215	\$ 27,384,956
9	Total Budget per registered entity	\$ 139,645	\$ 83,490	\$ 69,142	\$ 84,944	\$ 83,072	\$ 92,622	\$ 59,808	\$ 78,919
10	Total Budget per registered function	\$ 34,911	\$ 24,792	\$ 30,951	\$ 37,975	\$ 27,169	\$ 29,095	\$ 28,807	\$ 27,972
11	Total Statutory FTE <sup>3</sup>	30.59	43.00	36.86	72.20	78.12	32.25	60.00	140.50
12	Registered entity per Statutory FTE	1.700	3.163	5.914	3.158	2.445	3.380	3.283	2.470
13	Registered function per Statutory FTE	6.800	10.651	13.212	7.064	7.476	10.760	6.817	6.968
14	Total Compliance Budget <sup>4</sup>	\$ 5,186,867	\$ 7,297,310	\$ 8,650,196	\$ 15,381,065	\$ 10,995,642	\$ 7,787,038	\$ 8,809,903	\$ 13,811,437
15	Compliance budget per registered entity	\$ 99,747	\$ 53,657	\$ 39,680	\$ 67,461	\$ 57,569	\$ 71,441	\$ 44,720	\$ 39,802
16	Compliance budget per registered function	\$ 24,937	\$ 15,933	\$ 17,762	\$ 30,159	\$ 18,828	\$ 22,441	\$ 21,540	\$ 14,108
17	Total Compliance FTE <sup>3</sup>	18.83	21.26	16.00	45.75	36.92	21.35	35.75	54.00
18	Registered entity per Compliance FTE	2.8	6.4	13.6	5.0	5.2	5.1	5.5	6.4
19	Registered function per Compliance FTE	11.0	21.5	30.4	11.1	15.8	16.3	11.4	18.1

<sup>1</sup> ERO Funding is a sum of Assessments and Penalty Sanctions

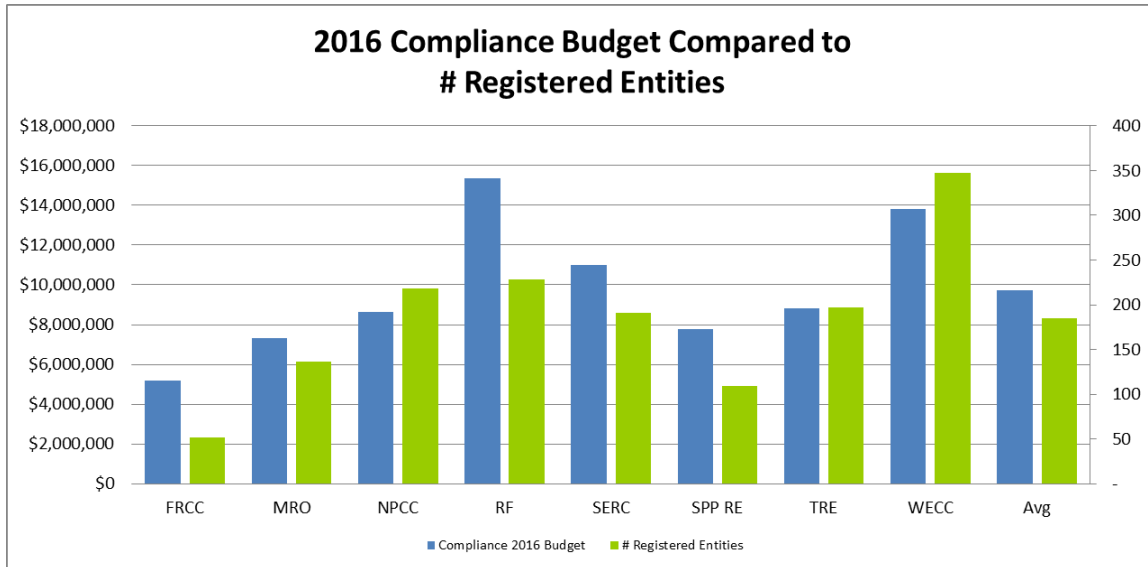
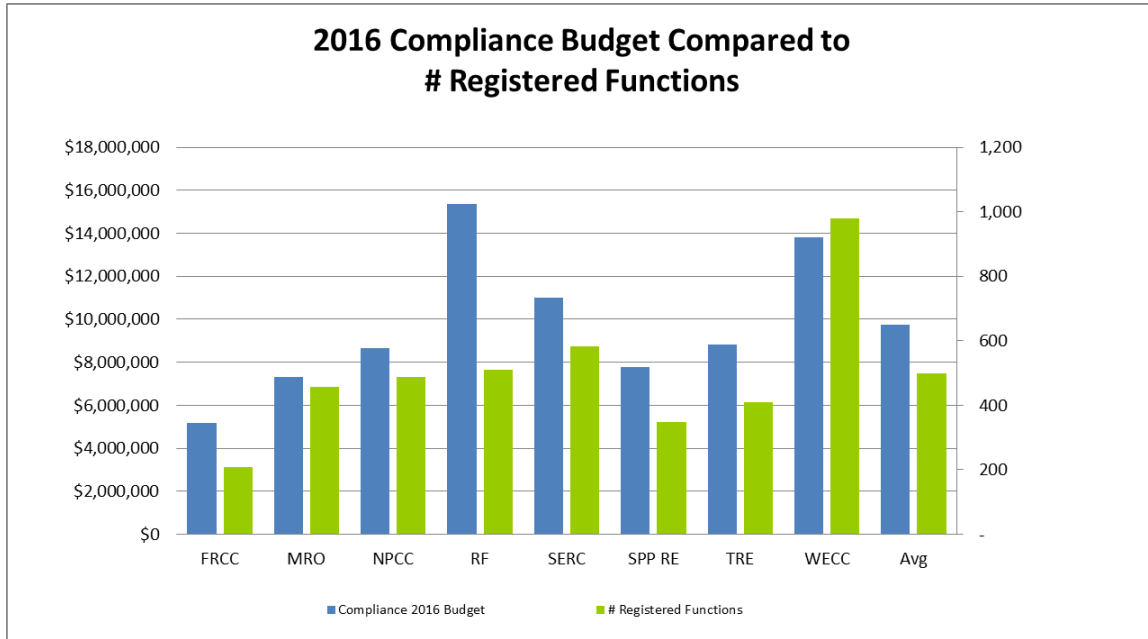
<sup>2</sup> Total Budget is a sum of Total Expenses and Capital Expenditures

<sup>3</sup> 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.

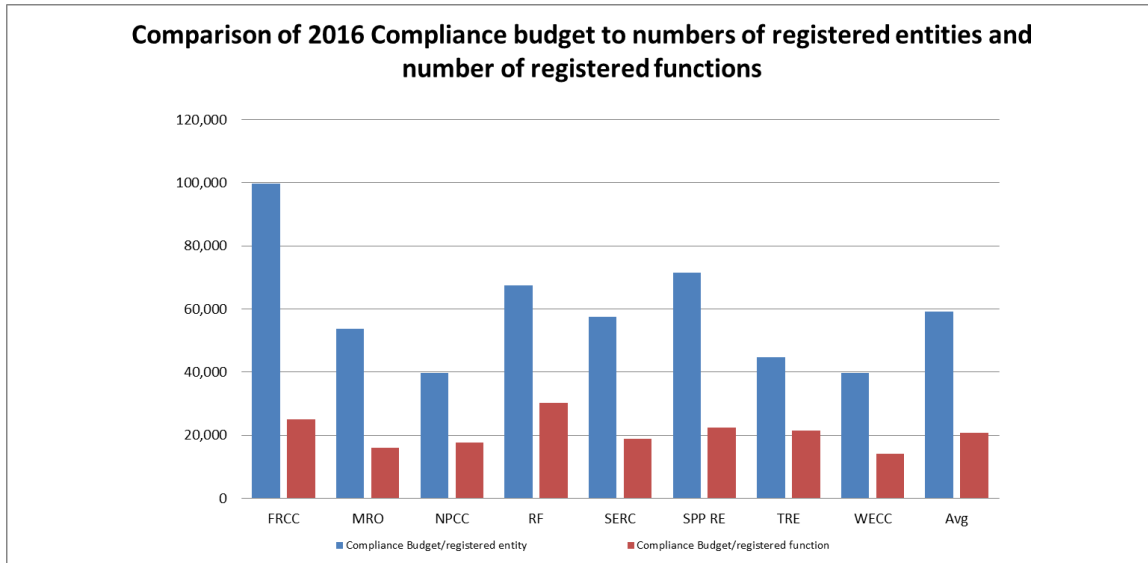
<sup>4</sup> Total Compliance Budget is a sum of Direct Expenses, Indirect Expenses and Capital Expenditures

<sup>5</sup> 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
Compliance 2016 Budget	5,186,867	7,297,310	8,650,196	15,381,065	10,995,642	7,787,038	8,809,903	13,811,437	9,739,932
# Registered Entities	52	136	218	228	191	109	197	347	185
# Registered Functions	208	458	487	510	584	347	409	979	498

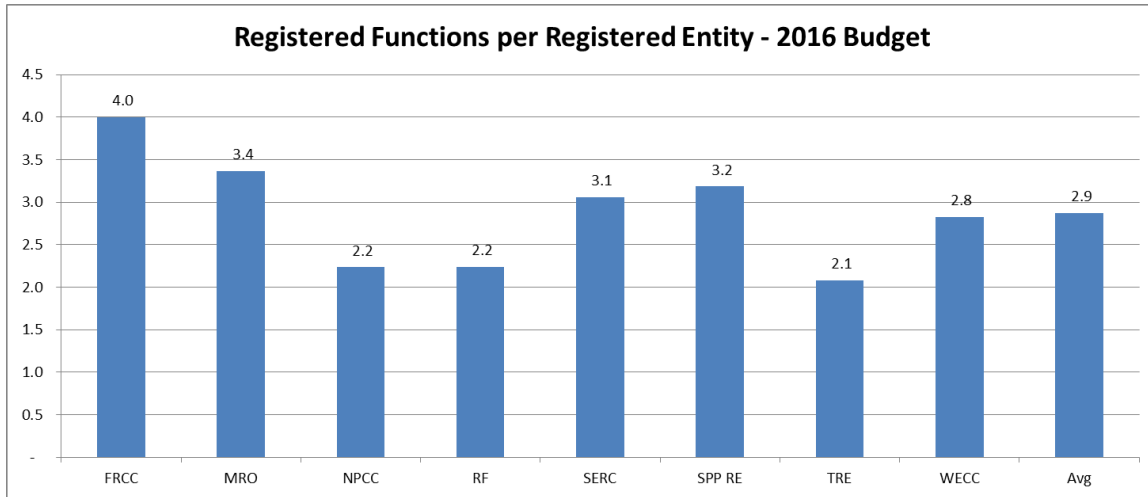


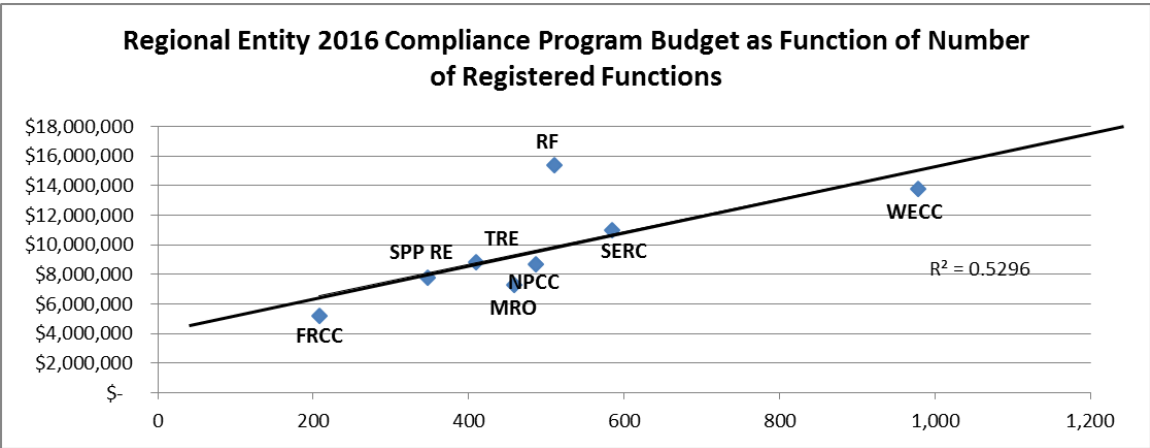
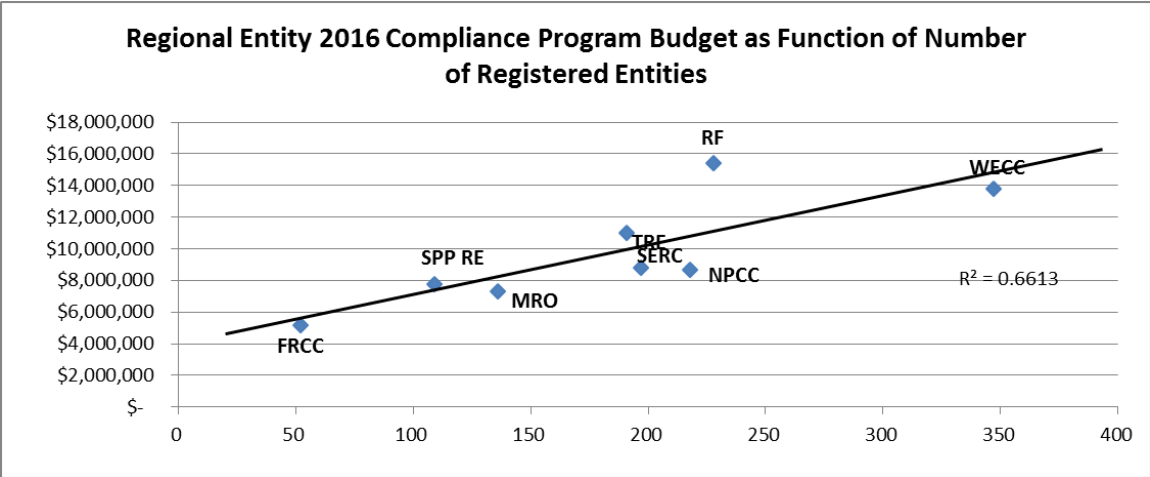
	FRCC	MRO	NPCC	RF	SERC	SPP RE	TRE	WECC	Avg
Compliance Budget/registered entity	99,747	53,657	39,680	67,461	57,569	71,441	44,720	39,802	59,260
Compliance Budget/registered function	24,937	15,933	17,762	30,159	18,828	22,441	21,540	14,108	20,714



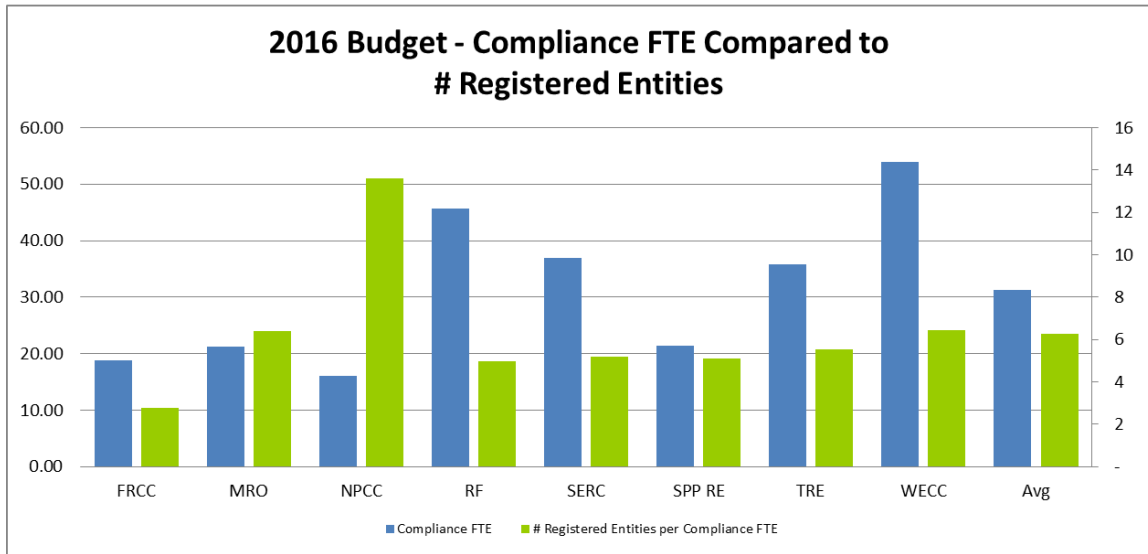
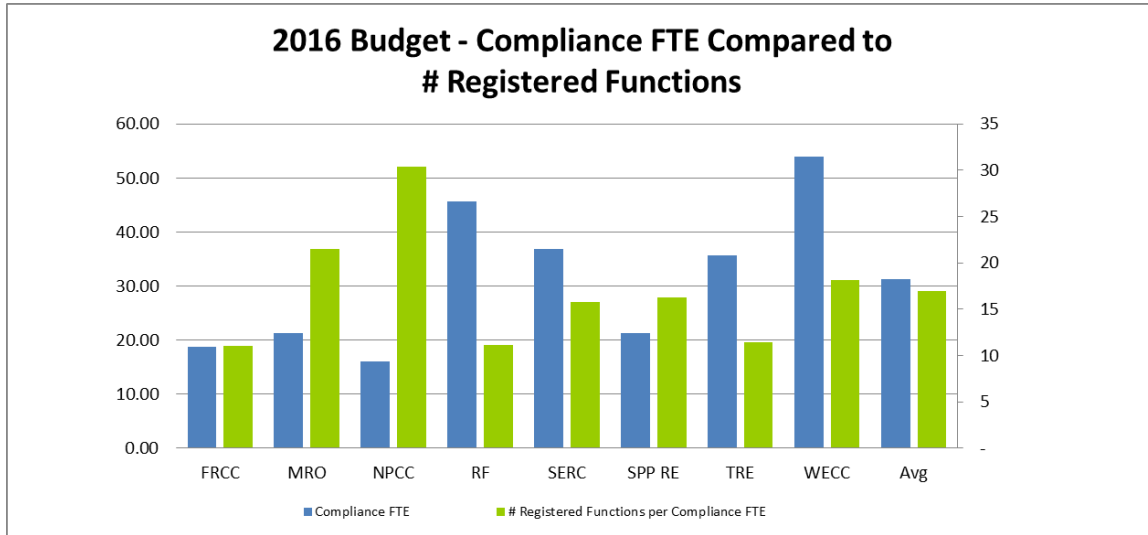
Registered Functions per Registered Entity  
2016 Budget

FRCC	MRO	NPCC	RF	SERC	SPP RE	TRE	WECC	Avg
4.0	3.4	2.2	2.2	3.1	3.2	2.1	2.8	2.9

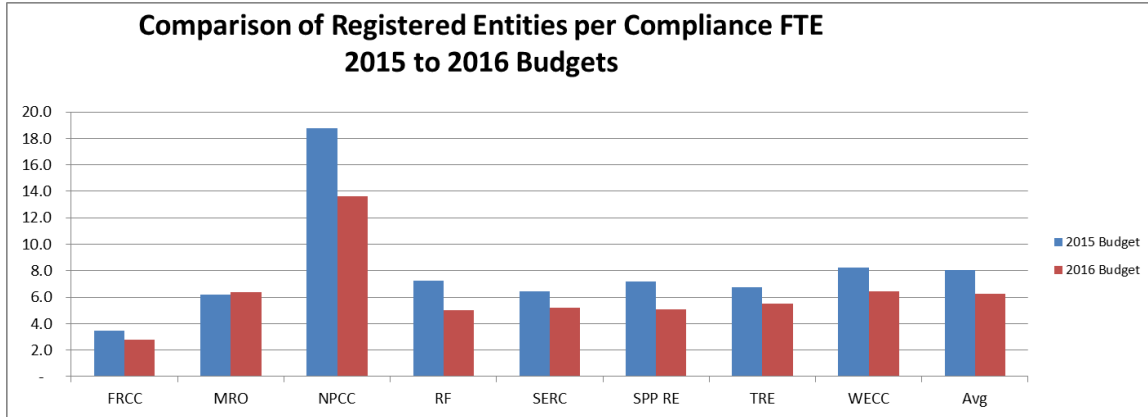




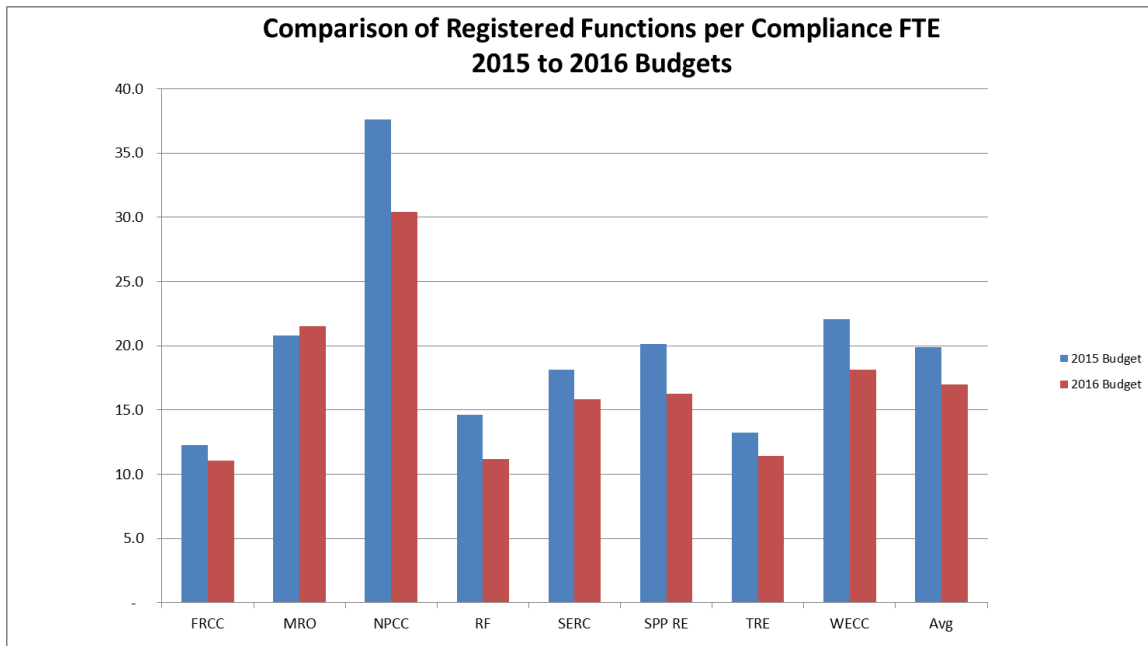
	FRCC	MRO	NPCC	RF	SERC	SPP RE	TRE	WECC	Avg
Compliance FTE	18.83	21.26	16.00	45.75	36.92	21.35	35.75	54.00	31.23
# Registered Entities per Compliance FTE	2.8	6.4	13.6	5.0	5.2	5.1	5.5	6.4	6.2
# Registered Functions per Compliance FTE	11.0	21.5	30.4	11.1	15.8	16.3	11.4	18.1	17.0



	FRCC	MRO	NPCC	RF	SERC	SPP RE	TRE	WECC	Avg
2015 Budget	3.4	6.2	18.8	7.2	6.5	7.2	6.7	8.2	8.0
2016 Budget	2.8	6.4	13.6	5.0	5.2	5.1	5.5	6.4	6.2



	FRCC	MRO	NPCC	RF	SERC	SPP RE	TRE	WECC	Avg
2015 Budget	12.3	20.8	37.6	14.6	18.2	20.1	13.3	22.1	19.9
2016 Budget	11.0	21.5	30.4	11.1	15.8	16.3	11.4	18.1	17.0





**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2016 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 7**

**METRICS ON NERC AND REGIONAL ENTITY**

**ADMINISTRATIVE (INDIRECT) COSTS**

**BASED ON**

**THE 2015 AND 2016 BUDGETS**

**Analysis of Indirect (Administrative Services) Costs  
2016 Budget versus 2015 Budget**

2015 BUDGET						2016 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
\$ 66,649,306	\$ 38,801,269	\$ 27,848,037	41.8%	1.39	<b>NERC</b>	\$ 67,186,665	36,744,230	30,442,435	45.3%	1.21
7,162,233	6,379,570	782,663	10.9%	8.15	<b>FRCC</b>	7,261,527	6,388,331	873,196	12.0%	7.32
10,328,687	6,430,254	3,898,433	37.7%	1.65	<b>MRO</b>	11,354,641	6,825,231	4,529,410	39.9%	1.51
14,778,540	9,544,174	5,234,366	35.4%	1.82	<b>NPCC</b>	15,072,998	9,620,222	5,452,776	36.2%	1.76
18,756,764	13,442,121	5,314,643	28.3%	2.53	<b>RF</b>	19,367,210	13,835,158	5,532,052	28.6%	2.50
15,995,840	9,704,308	6,291,532	39.3%	1.54	<b>SERC</b>	16,350,325	9,163,091	7,187,234	44.0%	1.27
11,808,109	5,803,102	6,005,007	50.9%	0.97	<b>SPP RE</b>	6,655,134	5,464,121	1,191,013	17.9%	4.59
11,983,701	7,788,932	4,194,769	35.0%	1.86	<b>Texas RE</b>	11,782,215	7,557,810	4,224,405	35.9%	1.79
26,300,034	17,346,688	8,953,346	34.0%	1.94	<b>WECC</b>	28,083,548	17,761,805	10,321,743	36.8%	1.72
			34.8%	2.43	<b>AVERAGE</b>				32.9%	2.63

2015 BUDGETED FTEs						2016 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
192.30	124.76	67.54	35.1%	1.85	<b>NERC</b>	192.48	121.25	71.23	37.0%	1.70
30.91	26.87	4.04	13.1%	6.65	<b>FRCC</b>	30.59	26.12	4.47	14.6%	5.84
42.50	31.08	11.42	26.9%	2.72	<b>MRO</b>	43.00	32.51	10.49	24.4%	3.10
36.86	27.86	9.00	24.4%	3.10	<b>NPCC</b>	36.86	27.86	9.00	24.4%	3.10
72.20	57.60	14.60	20.2%	3.95	<b>RF</b>	72.20	57.60	14.60	20.2%	3.95
78.70	54.57	24.13	30.7%	2.26	<b>SERC</b>	78.12	51.13	26.99	34.5%	1.89
32.75	28.25	4.50	13.7%	6.28	<b>SPP RE</b>	32.25	27.75	4.50	14.0%	6.17
60.00	44.50	15.50	25.8%	2.87	<b>Texas RE</b>	60.00	46.25	13.75	22.9%	3.36
137.50	92.60	44.90	32.7%	2.06	<b>WECC</b>	140.50	94.10	46.40	33.0%	2.03
			24.7%	3.53	<b>AVERAGE</b>				25.0%	3.46

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2016 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 8**

**BOARD OF TRUSTEE REMUNERATION REVIEW**

**JULY 2015**



## North American Electric Reliability Corporation

### Board of Trustee Remuneration Review

July 2015

# Introduction

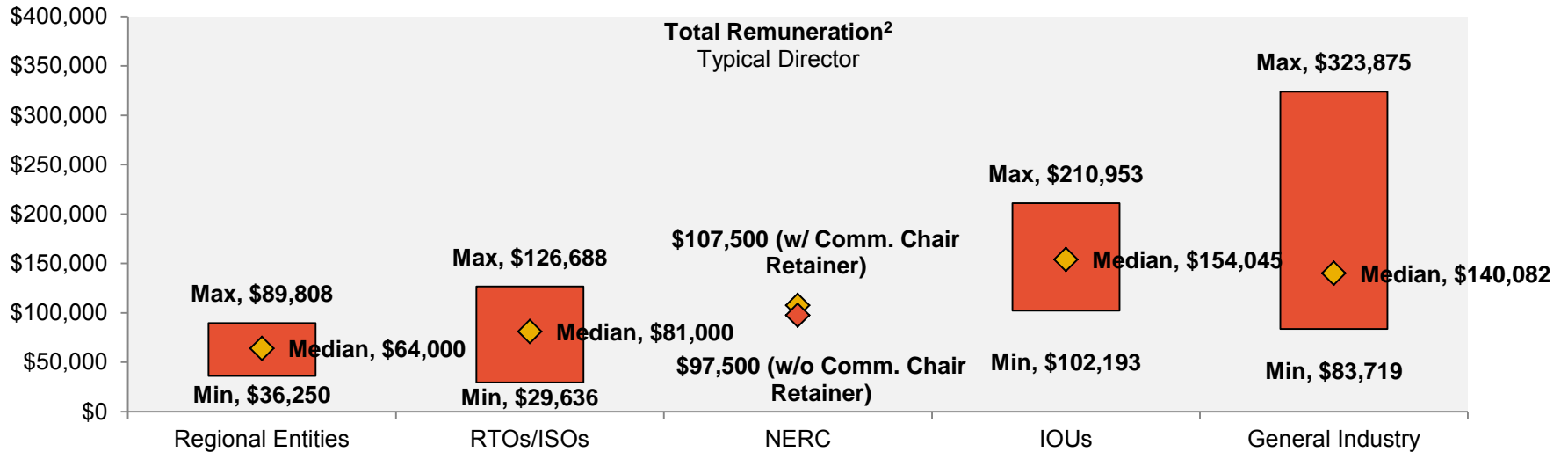
- North American Electric Reliability Corporation (NERC) engaged Towers Watson to conduct a Board of Trustees' (or Directors') compensation and structure assessment examining four market perspectives
  - Towers Watson last performed this assessment for NERC in August 2013 and utilized the same methodology
  - The four market perspectives examined are as follows:
    - **Regional Entities:** 6 of 8 organizations<sup>1</sup> are included in the analysis
    - **Regional Transmission Organization / Independent System Operator (RTOs/ISOs):** All 9 organizations are included in the analysis
    - **Investor Owned Utilities (IOUs):** 14 organizations with median revenues of \$1.2 billion
    - **General Industry:** 13 organizations with median revenues of \$409 million and median asset size of \$756 million
    - To see the complete list of peer organizations for each market perspective, please refer to the Appendix

## Notes:

(1) 2 of 8 organizations have all stakeholder boards and thus do not compensate their board members.

# Typical Trustee Total Remuneration

- The chart below presents the range (minimum to maximum) and median of total remuneration provided to a “typical Director<sup>1</sup>” for each market perspective
- NERC’s total remuneration for a “typical Trustee<sup>1</sup>” of \$107,500 falls above the median value provided by Regional Entities and RTOs/ISOs, but below the median value at IOU and General Industry peers



**NERC Total Remuneration as a % of Peer Median**

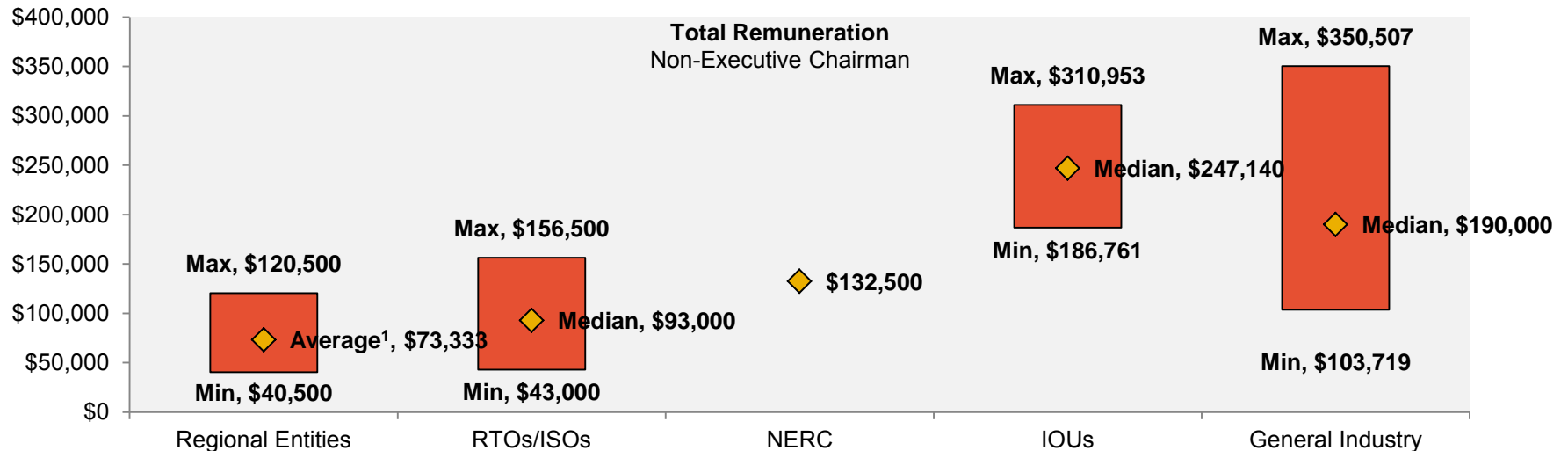
Retainer	168%	133%	100%	70%	77%
No Retainer	152%	120%	100%	63%	70%

**Notes:**

- A “typical Director” cannot be in a Board leadership position, an employee of the company or serve as a Director for less than a full year.
- Compensation for Regional Entities and RTOs / ISOs includes Committee Chair compensation while it has been excluded from IOUs and the General Industry market perspectives, given applicable disclosure.

# Non-Executive Chairman Total Remuneration

- The chart below presents the range (minimum to maximum) and median of total remuneration provided to a Non-Executive Chairman for each market perspective
- NERC's total remuneration to the Chairman of the Board of \$132,500 falls above the median value provided by Regional Entities and RTOs/ISOs, but below the median value at IOU and General Industry peers



NERC Total Remuneration as a % of Peer Median

181%	142%	100%	54%	70%
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## Notes:

(1) Average data was provided due to insufficient sample size to calculate the median.

# Committee Chair Additional Retainers

- NERC provides an annual cash amount of \$10,000 to Committee Chairs and the independent Trustee serving on the Electricity Sub-Sector Coordinating Council
- The additional compensation provided to NERC Committee Chairs is comparable to or above the median (50th percentile) of Committee Chairs of the three most common types of committees for both the IOU and General Industry peers

Committee Chair Additional Pay Element	NERC	Investor Owned Utilities			General Industry		
		25th Percentile	50th Percentile	75th Percentile	25th Percentile	50th Percentile	75th Percentile
<b>Finance &amp; Audit Committee</b>							
<b>Additional Total Compensation</b>	<b>\$10,000</b>	\$10,000	\$11,000	\$12,500	\$10,000	\$10,000	\$16,250
<b>Corporate Governance / Compensation Committee<sup>1</sup></b>							
<b>Additional Total Compensation</b>	<b>\$10,000</b>	\$7,875	\$10,000	\$10,000	\$5,750	\$7,500	\$10,000
<b>Nominating Committee<sup>2</sup></b>							
<b>Additional Total Compensation</b>	<b>\$10,000</b>	\$7,500	\$7,500	\$7,500	\$5,000	\$5,000	\$7,750
<b>Compliance Committee</b>							
<b>Additional Total Compensation</b>	<b>\$10,000</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Standards Oversight and Technology Committee</b>							
<b>Additional Total Compensation</b>	<b>\$10,000</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Enterprise-Wide Risk Committee</b>							
<b>Additional Total Compensation</b>	<b>\$10,000</b>	N/A	N/A	N/A	N/A	N/A	N/A

## Notes:

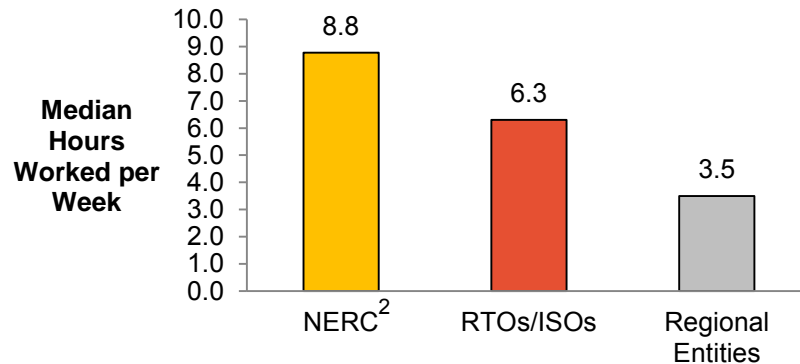
- (1) Market data for IOUs and General Industry is reflective of Compensation Committees.
- (2) Market data for IOUs and General Industry is reflective of Corporate Governance and Nominating Committees.



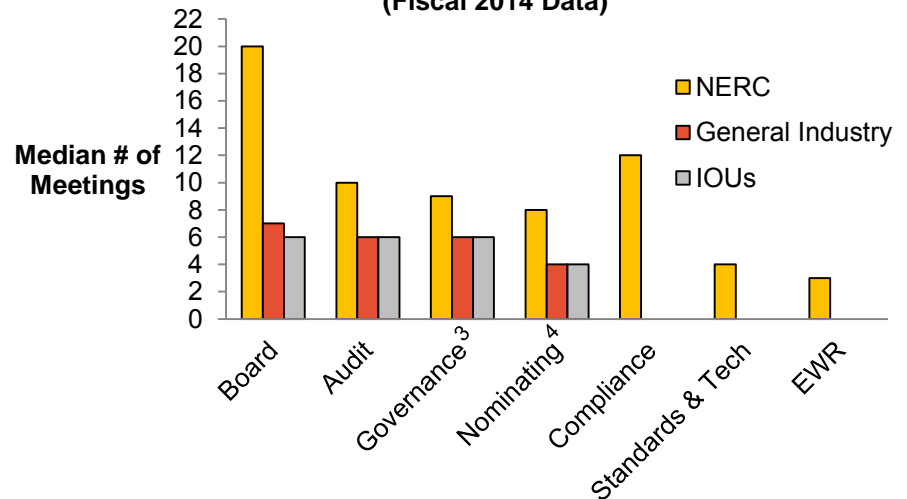
# Workload

- Compared to all four market perspectives, NERC ranks among the highest in regards to average hours worked and number of meetings held (both Board and Committees)
  - Findings do not include the regional board meetings NERC's Trustees attend throughout the year

**NERC vs. RTOs/ISOs & Regional Entities  
(Fiscal 2013 Data)<sup>1</sup>**



**NERC vs. General Industry & IOUs  
(Fiscal 2014 Data)**

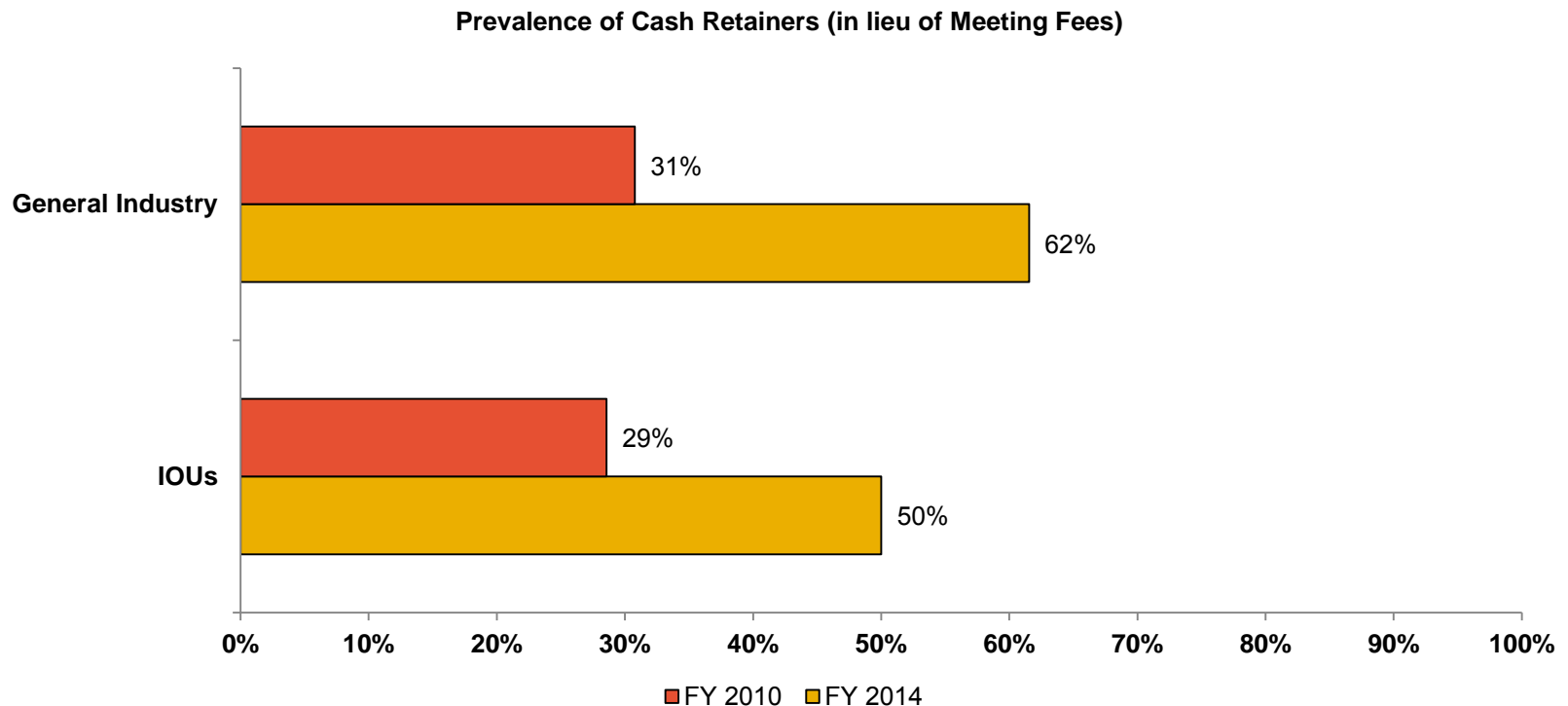


**Notes:**

- Hours disclosed excludes the Chairman of the Board.
- NERC's 2014 and 2015 average hours increased to 9.0 and 9.5 hours, respectively, but 2014 and 2015 market data are currently unavailable.
- Market data for IOUs and General Industry is reflective of Compensation Committees.
- Market data for IOUs and General Industry is reflective of Corporate Governance and Nominating Committees.

# Pay Structure

- NERC's practice of paying retainers (in lieu of board or committee meeting fees) is consistent with IOU and General Industry peer practices and aligns with broader market best practice



# Trends in Director Compensation<sup>1</sup>

- Buoyed by larger equity awards, total remuneration for board members of Fortune 500 companies increased by 6% at the median from 2012 to 2013
  - Median total annual stock compensation increased 4% while cash compensation remained flat year-over-year
  - The table below summarizes annual total remuneration increases for Fortune 500 and NERC peers:

	Regional Entities <sup>2</sup>	RTOs / ISOs <sup>2</sup>	IOUs <sup>2</sup>	General Industry <sup>2</sup>	Fortune 500
<b>Annual % Increase</b>	19%	9%	12%	6%	6%

- Consistent with prior years, companies continue to deliver cash compensation via retainers instead of per-meeting fees
  - Prevalence of board meeting fees and committee meeting fees decreased from 32% to 23% and 37% to 28%, respectively, from 2011 to 2013
  - Prevalence of committee member retainers increased from 22% to 28% from 2011 to 2013
- Majority of companies continue to provide additional retainers for leadership positions within the board, such as Non-Executive Chairman of the Board and Committee Chairs, especially Audit, Compensation and Governance Committees

## Notes:

- (1) Source: Based on year-over-year analysis of 474 Fortune 500 proxy filings reflecting fiscal year 2013.
- (2) Annual increase in total remuneration is based on companies included in both the 2013 and 2015 Towers Watson analyses.

# Design Considerations

## Pay Structure

- Maintain alignment with market best practices by continuing with current all retainer approach – Trustee, Committee Chair and Non-Executive Chairman retainers

## Pay Levels

- Maintain the guideline of targeting pay between the market 50th percentile of RTOs/ISOs and market 25th percentile of IOUs (lower market positioning reflects NERC’s not-for-profit status), as shown in the table below
- Given the greater workload carried by NERC Trustees versus peers, current positioning of NERC pay in the bottom half of the competitive pay range and the increase in market pay levels since the last study conducted by Towers Watson, the following adjustments should be considered:
  1. Increase Trustee annual cash retainer
  2. Increase Non-Executive Chairman annual cash retainer

Annual Cash Retainer	2013 Analysis		2015 Analysis		Proposed
	NERC	Competitive Pay Range	NERC	Competitive Pay Range	
Trustee	\$75,000	\$80,000 – \$115,000	\$97,500	\$80,000 – \$145,000	\$112,500
Committee Chair <sup>1</sup>	\$10,000	\$5,000 – \$10,000	\$10,000	\$7,500 – \$10,000	\$10,000
Non-Executive Chairman	\$110,000	\$105,000 – \$180,000	\$132,500	\$95,000 – \$225,000	\$160,000

### Notes:

(1) Reflects IOU market data reference points only, as RTOs/ISOs data are not available.

# Appendix

# Appendix

## Peer Group Financial Data: Regional Entities

Organization	Operating Budget (millions)	Data Effective Date
Florida Reliability Coordinating Council (FRCC)	\$13	2013
Midwest Reliability Organization (MRO)	\$9	2013
Northeast Power Coordinating Council (NPCC)	\$14	2013
ReliabilityFirst Corporation (RFC)	\$15	2013
SERC Reliability Corporation (SERC)	\$14	2013
Southwest Power Pool RE (SPP RE)	N/A	2013
Texas Reliability Entity (Texas RE)	\$10	2013
Western Electricity Coordinating Council (WECC)	\$60	2013

n = 8

<b>25th %ile</b>	<b>\$11</b>
<b>50th %ile</b>	<b>\$14</b>
<b>Average</b>	<b>\$19</b>
<b>75th %ile</b>	<b>\$15</b>

<b>North American Electric Reliability Corporation<sup>1</sup></b>	<b>\$250</b>
<b>Percent Rank</b>	<b>Highest</b>

### Notes:

Data based on 2013 Form 990s unless footnoted otherwise

N/A = Data is not available

<sup>1</sup> Data was provided by NERC and reflects their operating budget.

# Appendix

## Peer Group Financial Data: RTOs/ISOs

Organization	Operating Budget (millions)	Data Effective Date
Alberta Electric System Operator	N/A	2014
California ISO (CAISO)	\$214	2013
Electric Reliability Council of Texas (ERCOT)	\$157	2013
ISO New England (ISO - NE)	\$157	2013
Midwest ISO (MISO)	\$309	2013
New York ISO (NYISO)	\$160	2013
Ontario Independent Electricity System Operator	N/A	2014
PJM Interconnection (PJM) <sup>1</sup>	\$332	2014
Southwest Power Pool (SPP)	\$144	2013

n = 9

<b>25th %ile</b>	<b>\$157</b>
<b>50th %ile</b>	<b>\$160</b>
<b>Average</b>	<b>\$210</b>
<b>75th %ile</b>	<b>\$261</b>

<b>North American Electric Reliability Corporation<sup>2</sup></b>	<b>\$250</b>
<b>Percent Rank</b>	<b>73%</b>

### Notes:

Data based on 2013 Form 990s unless footnoted otherwise

N/A = Data is not available

<sup>1</sup> Data was based on its 2014 Financial Statement as the organization is not required to file a Form 990.

<sup>2</sup> Data was provided by NERC and reflects their operating budget.

# Appendix

## Peer Group Financial Data: Investor Owned Utilities

Company	Revenues (millions) <sup>1</sup>
Allete, Inc.	\$1,137
Avista Corp.	\$1,473
El Paso Electric Co.	\$918
Empire District Electric Co.	\$652
Great Plains Energy Incorporated	\$2,568
IDACORP, Inc.	\$1,283
ITC Holdings Corp.	\$1,023
MGE Energy Inc.	\$620
NorthWestern Corporation	\$1,205
OGE Energy Corp.	\$2,453
Otter Tail Corporation	\$799
PNM Resources, Inc.	\$1,436
Portland General Electric Company	\$1,900
Westar Energy, Inc.	\$2,602

n = 14

25th %ile	\$944
50th %ile	\$1,244
75th %ile	\$1,793

North American Electric Reliability Corporation <sup>2</sup>	\$250
Percentile Rank	Lowest

**Notes:**

(1) Financial figures are as reported by S&P Capital IQ. All financials are as of 2014 fiscal year end.

(2) The data was provided by NERC and reflects their operating budget.



# Appendix

## Peer Group Financial Data: General Industry

Company	Revenues (millions) <sup>1</sup>	Assets (millions) <sup>1</sup>
AeroVironment, Inc.	\$252	\$385
Badger Meter, Inc.	\$365	\$341
Cogent Communications Group Inc.	\$380	\$762
Emergent BioSolutions, Inc.	\$450	\$945
FormFactor Inc.	\$269	\$344
Hancock Holding Co.	\$849	\$20,747
Iridium Communications Inc.	\$409	\$2,910
Lydall Inc.	\$536	\$362
NASDAQ OMX Group Inc.	\$3,500	\$12,087
NIC	\$272	\$173
Premiere Global Services, Inc.	\$567	\$756
Seattle Genetics, Inc.	\$287	\$459
Wintrust Financial Corporation	\$793	\$20,011

n = 13

25th %ile	\$287	\$362
50th %ile	\$409	\$756
75th %ile	\$567	\$2,910

North American Electric Reliability Corporation <sup>2</sup>	\$250	--
Percentile Rank	Lowest	--

**Notes:**

(1) Financial figures are as reported by S&P Capital IQ. All financials are as of 2014 fiscal year end.

(2) The data was provided by NERC and reflects their operating budget.

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**RESPONSE TO SEPTEMBER 15, 2015 LETTER**

**ATTACHMENT 9**

**INFORMATION ON NERC COSTS IN 2015 AND 2016 BUDGETS  
FOR CYBER RISK INFORMATION SHARING PROGRAM**

<b>NERC Costs</b>	<b>2015 Budget</b>	<b>2016 Budget</b>	<b>Variance</b>
Personnel	\$ 459,251	\$ 741,671	\$ 282,420
Data Storage	300,000	300,000	-
Hardware and Software	100,000	100,000	-
ES-ISAC Portal Upgrades/Enhancements	100,000	100,000	-
Security review		100,000	100,000
Meetings, travel and conferences	50,000	69,455	19,455
Cellular and other Office Costs	5,000	4,277	(723)
Professional Fees	250,000	50,000	(200,000)
Insurance	100,000	125,000	25,000
Indirect cost allocation	390,817	694,022	303,205
<b>Total</b>	<b>\$ 1,755,068</b>	<b>\$ 2,284,425</b>	<b>\$ 529,357</b>

50% funded through assessments	\$ 877,534	\$ 1,142,213	\$ 264,679
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<b>PNNL Costs</b> funded only by participants	\$ 7,566,055	\$ 5,688,594	\$ (1,877,461)
50% of NERC costs	877,534	1,142,213	264,679
Insurance reserve fund	500,000	-	(500,000)
<b>Total funding by participants</b>	<b>\$ 8,943,589</b>	<b>\$ 6,830,807</b>	<b>\$ (2,112,783)</b>