

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Second Draft 2014 Business Plan and Budget

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RELIABILITY | ACCOUNTABILITY



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About NERC

Overview

The North American Electric Reliability Corporation (NERC) is a not-for-profit entity organized under the New Jersey Nonprofit Corporation Act. NERC's mission is to improve and ensure the reliability of the bulk power system in North America. NERC's area of responsibility spans the continental United States and Canada and the northern portion of Baja California, Mexico. Entities under NERC's jurisdiction are the users, owners, and operators of the bulk power system – a system that serves the needs of over 334 million people, includes installed electricity production capacity of approximately 1,200 gigawatts, operates 211,000 miles of high voltage transmission, and is comprised of assets worth more than one trillion dollars.

The Federal Energy Regulatory Commission (FERC or Commission) certified NERC as the Electric Reliability Organization (ERO) within the United States to establish and enforce reliability standards for the United States portion of the bulk power system, pursuant to section 215 of the Federal Power Act. NERC is subject to regulatory oversight by FERC.

In Canada, NERC presently has memoranda of understanding with provincial authorities in Ontario, New Brunswick, Nova Scotia, Québec, Saskatchewan, and Alberta, and with the National Energy Board of Canada. NERC standards are mandatory and enforceable in Ontario and New Brunswick as a matter of provincial law. NERC has an agreement with Manitoba Hydro, making reliability standards mandatory for that entity, and Manitoba has adopted legislation setting out a framework for standards to become mandatory for users, owners, and operators in the province. In addition, NERC has been designated as the "electric reliability organization" under Alberta's Transportation Regulation, and certain reliability standards have been approved in that jurisdiction; others are pending. 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. NERC standards are now mandatory in British Columbia and Nova Scotia.

Membership and Governance

An 11 member Board of Trustees (Board) governs NERC (10 independent directors plus the CEO serving as the management trustee). The Board has formed several committees to facilitate its oversight of the organization in the areas of finance and audit, governance and human resources, compliance, standards oversight and technology, and nominations. A risk management and internal controls subcommittee of the Finance and Audit Committee supports corporate risk management and internal audit functions.

Membership in NERC is open to any person or entity that has an interest in the reliability of the North American bulk power system. Membership in NERC is voluntary and affords participants the opportunity to engage in the governance of the organization through election to the Member Representatives Committee (MRC). The number of entities and individuals who are members is nearly 600.

The 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, and 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.

Scope of Responsibilities

As the ERO, NERC's primary responsibilities are leading the development, adoption, and improvement of mandatory reliability standards for the bulk power system in North America; monitoring, evaluating, and enforcing compliance with those reliability standards by the approximately 1,900 entities registered with NERC as bulk power system users, owners, and operators; and monitoring and assessing the reliability and adequacy of the bulk power system in North America. Collectively, the entities registered with NERC as bulk power system users, owners, and operators perform over 4,600 bulk power system reliability functions. NERC conducts near-term and long-term assessments of the reliability and future adequacy of the North American bulk power system; certifies bulk power system operators as having and maintaining the necessary knowledge and skills to perform their reliability responsibilities; maintains situational awareness of events and conditions that may threaten the reliability of the bulk power system; coordinates efforts to improve physical and cyber security for the bulk power system of North America; conducts detailed analyses and investigations of system disturbances and unusual events to determine root causes, uncover lessons learned, and issue relevant findings as advisories, recommendations, and essential actions to the industry; and based on lesson learned identifies the potential need for new or modified reliability standards, improved compliance, or other initiatives.

Delegated Authorities

In executing a portion of its responsibilities, NERC delegates authority to eight regional reliability entities (Regional Entities) to perform certain functions through delegation agreements. FERC has approved delegation agreements between NERC and the eight Regional Entities (Florida Reliability Coordinating Council, Midwest Reliability Organization, Northeast Power Coordinating Council, Inc., ReliabilityFirst Corporation, SERC Reliability Corporation, Southwest Power Pool Regional Entity, Texas Reliability Entity, Inc. and the Western Electricity Coordinating Council). These delegation agreements describe the authority delegated to the Regional Entities in the United States to propose and enforce reliability standards within their geographic footprints. NERC expects Regional Entities, whose territories extend into Canadian provinces and Mexico, to perform equivalent functions in those jurisdictions.

Statutory and Regulatory Background

NERC's authority as the ERO in the U.S. is based on Section 215 of the Federal Power Act as added by the Energy Policy Act of 2005¹ 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 FERC regulations also specify procedures for NERC's funding in the United States. NERC's annual business plan and budget is subject to FERC approval in the United States. Once approved, assessments are allocated to load-serving entities on a net energy for load (NEL) basis. Equivalent funding mechanisms are provided in Canada, subject to the specific laws and regulations of each province.

The funding requirements for each Regional Entity are addressed separately in each Regional Entity's business plan and budget, 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.

¹This was codified in section 215 of the Federal Power Act, 16 United StatesC. 824o.

Introduction and Executive Summary

	TOTAL RESOURCES (in whole dollars)			
	2014 Budget	U.S.	Canada	Mexico
Statutory FTEs	190.03			
Non-statutory FTEs				
Total FTEs	190.03			
Statutory Expenses	\$ 57,572,961			
Non-Statutory Expenses	\$ -			
Total Expenses	\$ 57,572,961			
Statutory Inc(Dec) in Fixed Assets	\$ 784,784			
Non-Statutory Inc(Dec) in Fixed Assets	\$ -			
Total Inc(Dec) in Fixed Assets	\$ 784,784			
Statutory Working Capital Requirement	\$ (674,995)			
Non-Statutory Working Capital Requirement				
Total Working Capital Requirement	\$ (674,995)			
Total Statutory Funding Requirement	\$ 57,682,750			
Total Non-Statutory Funding Requirement	\$ -			
Total Funding Requirement	\$ 57,682,750			
Statutory Funding Assessments	\$ 53,015,743	\$ 48,057,272	\$ 4,824,891	\$ 133,581
Non-Statutory Fees				
NEL	4,526,616,128	3,996,240,765	519,333,921	11,041,442
NEL%	100.00%	88.28%	11.47%	0.24%

Strategic Goals and Objectives

The 2014 business planning process commenced in the fourth quarter of 2012 with a collaborative review of the ERO's goals and objectives involving NERC and Regional Entity senior executives. This was followed by a review of business planning assumptions, existing activities, and resources, in each case taking into consideration lessons learned, stakeholder feedback, and statutory and governmental requirements and directives. Efforts were made to identify the desired end state for each of the major goal areas over the next three-year planning period, significant gaps to achieving stated objectives, and activities which should be undertaken to close those gaps. NERC's Finance and Audit Committee and the Board also participated in strategic planning sessions to provide input in the development of the ERO's strategic goals, objectives, and business plan and budget.

The 2014-2016 planning initiative updated the [ERO Enterprise Strategic Plan](#) (Strategic Plan) and associated strategic goals and objectives in the areas of standards; compliance, registration

and certification; risks to reliability; and coordination and collaboration. A draft ERO Enterprise Strategic Plan was presented at the February 2013 meeting of the Board and posted for a 30-day public comment period. Written comments were received from a number of individuals and entities and posted on the company website. Input was also sought from the trade associations and an informal input group of MRC members, which was established by the MRC in August 2012 to help facilitate NERC's business planning and budgeting process. In response to these comments, management recommended certain modifications to the Strategic Plan. These modifications were reviewed and approved at the Board of Trustees meeting on May 9, 2013. The following is a listing of the specific goals and objectives set forth in the Strategic Plan.

Standards

Goal 1. Develop clear, reasonable and technically sound mandatory reliability standards in a timely and efficient manner. These standards establish threshold requirements for ensuring the bulk power system is planned, operated, and maintained in a manner that minimizes risks of cascading failures, avoids damage to major equipment, or limits interruptions of bulk power supply.

Objectives include:

- a. Standards are timely, clear and responsive to reliability and security risks.
- b. Standards are practical to implement and cost effective.

Compliance, Registration and Certification

Goal 2. Be a strong enforcement authority that is independent, without conflict of interest, objective and fair. The ERO retains and refines its ability to use enforcement when warranted and impose penalties and sanctions commensurate with risk.

Objectives include:

- a. The ERO registers entities commensurate with risk to the bulk power system and ensures all key reliability entities are certified to have essential capabilities.
- b. The ERO holds industry accountable for violations that create serious risk to the bulk power system; resulting actions are timely and transparent to industry.
- c. The ERO monitors registered entities and standards requirements commensurate with the risk and role of each type of registered entity.

Goal 3. Promote a culture of compliance which is driven by a culture of reliability excellence addressing reliability risks across the industry. The ERO works with industry to identify standards, procedures, practices and controls to address reliability risks.

Objectives include:

- a. Industry has effective procedures and programs to monitor, detect, correct, report, and prevent compliance, reliability, and security issues.

- b. The ERO uses efficient processes and proportional exercise of discretion to verify that compliance objectives are met by industry.

Risks to Reliability

Goal 4. Identify the most significant risks to reliability. The ERO identifies and prioritizes reliability risks, facilitates effective solutions and interventions, and monitors results.

Objectives include:

- a. Risks are identified and prioritized based on reliability impacts, cost/practicality assessments, projected resources, and emerging issues.
- b. Events and system performance are consistently analyzed for sequence, cause, and remediation to identify reliability risks and trends, and to inform standards, compliance, and other programs. Industry is well informed of system events, emerging trends, risk analysis, lessons learned and expected actions.

Goal 5. Be accountable for mitigating reliability risks. The ERO works with industry stakeholders and experts to ensure the mitigation of known risks to reliability.

Objectives include:

- a. The ERO is tracking industry accountability for critical reliability and security recommendations.
- b. Industry is aware of and is effectively addressing security vulnerabilities and threats. Industry security posture is being evaluated and continuously improved. During crisis situations, the ERO facilitates sharing of information among industry, Regions, and government.

Goal 6. Promote a culture of reliability excellence. The ERO facilitates a learning environment throughout the industry through event causal analysis, communication of lessons learned, tracking of recommendations, and implementation of best practices.

Objectives include:

- a. ERO is a leading resource to industry and policy makers for reliability information.
- b. Reliability models and data accurately represent system behavior and are shared among reliability entities.

Coordination and Collaboration

Goal 7. Improve transparency, consistency, quality and timeliness of results; operate as a collaborative enterprise; and improve efficiencies and cost effectiveness. The ERO accomplishes this through working with the Regional Entities and registered entities to ensure effective coordination, collaboration and process improvements. The ERO communicates expectations clearly and fosters collaboration to deliver important

results in advancing system reliability. The ERO engages the support and expertise of stakeholders, is an efficient steward of resources, and leverages information systems to create efficiencies and process controls.

Objectives include:

- a. The ERO acquires, engages, and retains highly qualified talent suited to the mission.
- b. The ERO internal risks are understood and managed; ERO processes are effective, efficient, and continuously improved.

Major Ongoing Activities

The following is a list of the major ongoing and new activities by strategic goal area, which will be undertaken in 2014 as part of ongoing operations, followed by a discussion of activities to address new research initiatives and key strategic initiatives and associated resource requirements².

Standards

- Continue addressing regulatory obligations for standards development and revisions as specified in regulatory directives
- Complete standards revisions related to phase 2, Paragraph 81 requirements
- Support the three-year standards development plan
- Integrate the plan from the 2013 independent expert review team into the standards development plan
- Increase coordination with NERC's Compliance and Enforcement departments in integrating compliance considerations into standards development
- Accelerate delivery of the number of standards that meet quality criteria and the results-based construct
- Develop a bulk power system reliability risk profile to evaluate existing standards and continue the prioritized development of risk-based standards focused on key reliability outcomes
- Facilitate industry transition to CIP v5 and minimize an unintended surge in violations
- Develop methods to assess and manage cost effectiveness (benefit) of new standards
- Continue to support alignment between standards development and the Reliability Issues Steering Committee (RISC) priorities

² See Section A for a discussion of other ongoing department activities, including activities currently underway in 2013.

Compliance, Registration and Certification

- Continue to improve enforcement processing efficiency, including steps to ensure the sustainability and expandability of the Find, Fix, Track and Report process
- Finalize and implement the RAI enforcement strategy and deliver 2014 milestones
- Focus on achieving better consistency in regional enforcement outcomes
- Continue registered entity mapping activities to ensure that registry gaps and duplicative registration and compliance monitoring are avoided
- Continue to work to ensure registered entities understand their compliance obligations and how compliance will be assessed
- Complete functional model review and registration needs assessment
 - § Develop common and consistent registration approach among regions
 - § Develop recommendations to modify registration and certification process based on bulk power system risk
- Complete Bulk Electric System (BES) Phase II exception process implementation
- Reduce unnecessary compliance documentation while working to ensure registered entities are monitored in a cost effective manner
- Continuously assess the actively monitored list based on reliability trends, risks, and historical information to ensure that the compliance focus remains on the most critical reliability standards
- Develop highly qualified and trained auditor, investigator and enforcement staffs
- Develop training resources for the ERO and industry, including materials related to the Reliability Assurance Initiative (RAI)
- Provide early and ongoing input into the standards development process
- Provide ongoing oversight of Regional Entity compliance and enforcement activities
- Develop metrics and incentives to improve trends in mitigation aging curve
- Continue to identify the causes and trends of violations in enforcement cases

Risk to Reliability

- Issue reliability assessment reports, guidelines, recommendations and alerts as needed.
- Prepare long-term and seasonal reliability assessments
- Conduct special assessments addressing key reliability issues
- Prepare an annual state of reliability report that analyzes bulk power system performance trends and provides insight and guidance to address key reliability aspects
- Continue to work to address high-impact, low-frequency issues, including geomagnetic disturbance BES effects and vulnerability assessment

- Provide oversight, analysis and review of Generating, Transmission and Demand Response Availability Data Systems (GADS, TADS, and DADS), along with the Spare Equipment Database
- Strengthen data collection and validation processes by designing, creating, testing, and implementing data systems and management for reliability assessment and risk analysis
- Provide quarterly updates on trends and measures of BES reliability
- Develop risk registry and a systematic prioritization process with the RISC
- Develop control strategies and plans to address the highest priority existing or emerging risks to BES reliability
- Develop a risk register to support bulk power system risk profile measurement and assessment of standards
- Conduct major event investigations, analysis and reporting of major findings and recommendations that will improve reliability
- Support the development and implementation of ERO Enterprise applications critical to advancing the quality and usefulness of reliability assessments and event analysis data
- Develop structured approach to evaluate and improve system models, analysis and assessments
- Improve the functionality and usability of the ES-ISAC portal for registered entities
- Develop a cyber security maturity model tool kit for industry to conduct cyber security self assessments
- Deliver important information to registered entities regarding critical infrastructure protection security threats, vulnerabilities, and lessons learned from subject matter experts, senior industry and governmental representatives
- Through security best-practice discussion forums, educate industry about reliability concerns and risk mitigation associated with emerging physical and cyber security threats
- Continue to collaborate with government agencies in the United States and Canada to develop more timely dissemination of classified information regarding threats to the bulk power system, including dissemination of information from classified sources in a form that can be provided to and used by the industry
- Conduct security incident analysis and work with industry experts to evaluate, track, and identify lessons learned and security metrics that enhance the electricity sector's security posture
- Continue to work with the Regional Entities to obtain and review information from registered entities regarding qualifying events and disturbances in order to advance awareness of events above a threshold level, facilitate analysis of root causes, risks to reliability, wide areas assessments, mitigation, and timely dissemination of information regarding events

- Continue to support the System Operator Certification and continuing education programs, as well as provide or facilitate the provision of training to support knowledge and skills development in the standards, compliance, event analysis, registration and other key areas

Coordination and Collaboration

- Continue to provide resources to support to the Board and Board committees, the MRC, Standards Committee, Compliance and Certification Committee, Planning Committee, Operating Committee, Critical Infrastructure Protection Committee, Electricity Sub-Sector Coordinating Council (ESCC), Reliability Issues Steering Committee and numerous ERO subcommittees and working groups
- Continue to implement procedures, controls, processes, documentation and systems to improve the efficiency of operations and control costs
- Continue to work with Regional Entities to improve oversight and collaboration
- Continue to enhance to ERO risk management tools and procedures
- Develop a comprehensive technology roadmap for applications and infrastructure supporting ERO operations, including Regional Entity components
- Continue to work collaboratively with the Regional Entities to advance the design and implementation of strategic ERO Enterprise IT applications and supporting infrastructure
- Review and where applicable make recommendations for improvements in NERC and Regional Entity operating and working capital reserve policies and forecasting, including policies applicable to tracking and use of excess operating reserves
- Evaluate and implement mechanisms to improve talent acquisition and employee retention

2014 Key Business Planning Assumptions

As part of their annual business planning initiatives NERC and the Regional Entities collaborate in the development of significant assumptions that should be considered in developing their respective business plans and budgets. For the 2014 business plans and budgets, these assumptions include, but are not limited to:

1. There will be continued industry participation to support key program areas including but not limited to the standards and compliance process improvement initiatives;
2. External factors, including regulatory actions, may affect resource needs and allocation;
3. Critical infrastructure protection will continue to be a priority in the United States and Canada;
4. Compliance auditing will transition to be more reflective of a registered entity's reliability risk profile; and
5. Significant investments will be required over the planning period to develop and implement program area and enterprise-wide applications to support common NERC and Regional Entity business needs and processes.

These assumptions also reflect the application of the Section 215 criteria discussed in the following section. A more complete list of the common assumptions is attached as **Exhibit A**.

Application of Section 215 Criteria to Major Activities

In its Order approving NERC's 2013 business plan and budget, the Federal Energy Regulatory Commission (FERC) required NERC to establish criteria for determining whether its proposed activities are eligible for funding under Section 215. By an Order dated April 19, 2013, FERC approved NERC's proposed criteria, with certain modifications.³ **Exhibit B** summarizes the major activities, which are proposed to be undertaken by NERC and the approved Section 215 criteria applicable to such activities.

As further described in Exhibit B, all of the major activities, which NERC proposes to undertake in 2014, are within the Section 215 guidelines. Notwithstanding the foregoing, as part of the business planning process, the Board requested policy input regarding the potential for funding support for the ESCC and the operation of the ES-ISAC outside of Section 215. Based on this feedback and the discussions at the May 2013 Board meeting management has proposed to continue Section 215 funding for the ES-ISAC in 2014.

In addition, stakeholder feedback was also sought regarding the potential funding of the System Operator Certification and Continuing Education Program (SOCCED) activities outside of Section 215. The SOCCED programs are designed to ensure that personnel operating the bulk power system have the skills, training, and qualifications needed to operate the system reliably. NERC maintains the credentials required to work in system control centers across North America for over 6,000 system operators. The requirements of the SOCCED programs are encompassed in Sections 600 and 902 of the NERC Rules of Procedure, as well as in Article XII of the NERC Bylaws. NERC's system operator certification exam is designed to test specific knowledge of job skills and reliability standards. It also prepares operators to comply with requirements of reliability standards and appropriately operate the BPS 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. SOCCED costs have been entirely or substantially funded through testing and certification fees, and a separate operating reserve has been established for the SOCCED program under NERC's Working Capital and Operating Reserve Policy. Based on the feedback received to date, management is proposing to continue the current SOCCED funding approach in 2014.

Overview of 2014 Funding Requirements

NERC's 2014 Business Plan and Budget includes the resources required for NERC to continue to deliver on its mission. NERC's 2014 Business Plan and Budget also reflects the ongoing efforts of NERC to better define program area requirements and allocate resources in order to make

³ *North American Electric Reliability Corporation, Order on Compliance*, 143 FERC ¶ 61,052 (2013).

more meaningful and demonstrable contributions to improvements in the reliability of the bulk power systems in North America. Management continues to enhance the quality and depth of information provided in the company's business plan and budget in order to improve transparency, as well as stakeholder communications and understanding of the ERO's resources requirements.

The following sections of the 2014 Business Plan and Budget describe in detail the resources required in 2014 for NERC to continue to carry out its mission. The 2014 funding requirements reflect the costs of ongoing operations, including but not limited to personnel costs based on projected 2013 year-end headcount, contracts for office space, software licensing, third-party data management, communication and other services to support operations, as well as the operation and maintenance of infrastructure investments. Incremental funding requirements in 2014 are primarily driven by resources required to fund (1) vegetation and geomagnetic disturbance (GMD) research related to regulatory matters, (2) consulting resources to support compliance and enforcement reform initiatives, (3) investments in technology and support services to improve cyber threat information sharing capabilities, preparedness, and mitigation strategies, and (4) investments in development of software applications and infrastructure to facilitate improved business processes, efficiency and reduce unnecessary costs on registered entities. The 2014 funding requirements for these items are partially offset by savings realized from reduction in contractor and consulting costs tied to the completion, elimination, or reduction in the scope of various other program area initiatives.

Penalty funds received in 2013 and a reduction in NERC's working capital reserves will reduce NERC's 2014 assessments funding approximately \$1.4M (3%). After taking into account the application of NERC's policies regarding the allocation of United States penalty funds⁴, the allocation of certain compliance and enforcement costs⁵, and using 2011 net energy for load data, assessments will be approximately \$5.0M (11.7%) higher for United States entities, \$381.6k (8.6%) higher for Canadian entities, and \$8.9k (7.1%) higher for Mexican entities.

The 2014 proposed assessment increase represents a net increase of \$2.4M (4.6%) in assessments over the two-year period between 2013-2014. Management is continuing to review methods to stabilize the potential year-to-year volatility in assessments. The capital financing program discussed further below and in **Exhibit D** is an example. Management and the NERC Finance and Audit Committee are also continuing to review projected short- and long-term working capital and operating reserve requirements and policies, as well as the policy applicable to the application of penalty funds.

NERC is proposing to finance the costs of certain enterprise IT applications, which are under development in 2013 and are proposed to be developed in 2014, as well as finance the cost of certain hardware that supports internal as well as enterprise software applications. It is anticipated that the combination of NERC's strong credit and a favorable interest rate environment will allow these investments to be financed at attractive interest rates. This financing will place downward pressure on assessments in the near term and spread out the

⁴ Accounting, Financial Statement and Budgetary Treatment of Penalties Imposed and Received for Violations of Reliability Standards, December 8, 2008

⁵ Expanded Policy on allocation of Certain Compliance and Enforcement Costs, July 29, 2008

costs of each these capital projects over three years, as opposed to expensing the entire development and infrastructure costs in the current year (2014). Additional details regarding this proposed financing are included in Exhibit D. The repayment of the projected principal and interest in connection with this financing has also been factored into the 2015 and 2016 budget projections discussed further below. Implementation of this approach is dependent on negotiation of acceptable, definitive terms and conditions of the financing agreements with lenders, NERC Board approval, and Commission approval of the principal repayment and interest schedule for the borrowings in NERC's budget and statutory assessments.

Management is proposing to maintain operating reserves for known contingencies and unforeseen contingencies at the same level as in the 2013 budget, including a \$1M budget for known contingency reserves and \$1M budget for unforeseen contingencies reserves. Known contingency reserves include potential funding of the development of (1) a reliability assessment database that will be used to conduct reliability risk assessments and analysis for resource planning and allocation, as well as industry advisories and alerts and (2) additional near-real-time cyber security threat communication and mitigation tools for registered entities. Further information regarding these two initiatives may be found on pages 23-24. Based on an analysis of working capital and operating reserve levels and taking into account the forecasted year-end reserve balances, a total of \$1.1M in excess operating reserves is proposed to be applied to reduce 2014 assessments, as shown on Table B-1 in Section B.

Management has also prepared preliminary budget projections for 2015 and 2016. Further information regarding the assumptions underlying these projections may be found on pages 26-27.

2014 Cost of Current Operations and Additional Resource Requirements

Management and the NERC Board take the efficiency and the cost of NERC's operations very seriously. The following is a list of some of the specific steps that have been taken to control the cost and increase the efficiency of NERC's operations:

1. Established a formal working capital and operating reserve policy and controls
2. Implemented policies and controls regarding the expenditure of funds approved for specific statutory purposes on unbudgeted activities
3. Increased the detail and granularity of variance reporting, both monthly for operational purposes and quarterly for review with the Finance and Audit Committee, as well as in quarterly public postings and annual FERC filings.
4. Retained an outside consulting firm to conduct a comprehensive review of employee compensation and benefits and implemented revised policies governing compensation and benefits
5. Implemented an ongoing top to bottom review of the entire organization to determine the particular skills and competencies that are required to perform the necessary tasks of each position in the organization
6. Significantly reduced the company cost of employee benefits

7. Implemented average salary increases below peer group average
8. Implemented a workforce management system to track employee time by major activity
9. Developed more robust policies and controls governing employee travel expenses
10. Strengthened resource capabilities for regional entity oversight
11. Established a risk management and internal controls framework and hired experienced personnel to implement it
12. Developed and obtained FERC approval of written criteria governing statutory activities and applied these criteria to departmental activities in connection with the development of the business plan and budget
13. Undertook a review of departmental activities to ensure alignment with goals and objectives contained in the approved Strategic Plan
14. Eliminated funding of non-core activities
15. Improved coordination and decision-making with the Regional Entities

With due regard to the foregoing, the projected 2014 revenue requirements reflect the revenues necessary to support the major departmental activities discussed on pages 10-13, including but not limited to the cost of personnel, meeting, travel, office, information technology, as well as other costs necessary to support the essential functioning and governance of the corporation as detailed in the financial statements and supporting schedules. The projected cost of ongoing operations in 2014 reflects (1) average salary increases below industry average, (2) a personnel attrition factor, (3) continuation of 2013 reductions in medical and retirement benefits, (4) market increases in health care costs, and (4) the elimination of funding of the Interchange Distribution Calculator and contractors and consultants to support the North American Synchronphasor Initiative.

NERC's 2014 cost of current ongoing operations also includes the current cost of operation of the ES-ISAC and other Critical Infrastructure Protection department activities, including ESCC support, in each case at current levels. The cost associated with support provided to the ESCC by internal NERC resources outside of the Critical Infrastructure Protection department is included in the costs of the department to which the personnel who provide this support are assigned. Utilizing a recently implemented workforce management system the company is tracking time associated with providing ESCC support and will have the ability in the future to allocate costs to specific activities, such as ESCC support. Additional revenue requirements to further improve ES-ISAC operations and associated registered entity benefits are discussed in the next section.

Forecasted 2014 personnel costs include 2013 budgeted full time employees (FTEs) plus the addition of four positions required to support current operations. These positions include: (1) an engineer in the Reliability Assessment and Performance Analysis department to support risk management initiatives and associated technical analysis, (2) a shared administrative support

position for the legal and enforcement departments (which are both based in the Washington, D.C. office and currently have limited administrative support), (3) a database analyst to assist in the management of the numerous databases necessary for ERO operations and (4) a webmaster to support the day-to-day maintenance of NERC's website and associated applications which are used extensively to support both internal and external knowledge management and communications. As further discussed in the next section, NERC is also proposing to add two additional employees to strengthen the operation of the ES-ISAC.

NERC is projecting approximately \$54.6M in total operating expenses and capital expenditures to support current ongoing operations, which is approximately \$305.8k (0.6%) over 2013.

NERC management has also prepared a projection of the cost of the additional resources required in 2014 to enable the company to (1) conduct research in connection with recent regulatory matters, (2) support key strategic initiatives, and (3) improve and expand ES-ISAC capabilities and performance. The following table sets forth the 2014 budget impact of these incremental resource requirements, followed by a more detailed discussion of these incremental resource needs.

2013 Budget		2014 Commitments - Inc(Dec)	Incremental Resources	Total 2014 Budget
\$ 31,298,405	Total Personnel Expense	\$ 2,829,719	\$ 332,301	\$ 34,460,425
\$ 4,098,310	Total Meeting Expense	\$ (110,810)	\$ -	\$ 3,987,500
\$ 8,816,254	Contracts and Consultants	\$ (2,566,825)	\$ 1,923,450	\$ 8,172,879
\$ 8,251,187	Operating Expenses	\$ 223,968	\$ -	\$ 8,475,154
\$ 50,000	Non-Operating Expenses	-	94,000	\$ 144,000
\$ 1,772,100	Capital Expenditures	\$ (70,300)	\$ 1,415,990	\$ 3,117,790
\$ 54,286,256	Total Budget	\$ 305,751	\$ 3,765,741	\$ 58,357,748

Additional Research Related to Regulatory Matters

Resource requirements for 2014 are projected to be impacted in order to comply with recent regulatory requirements regarding vegetation clearances and vegetation management on public lands, as well as the potential impacts of geomagnetic disturbances (GMD). Each of these items is described further below, together with estimated 2014 funding requirements.

1. Vegetation Research

In the recent FERC Order approving the FAC-003 reliability standard for vegetation management, the Commission approval included an obligation to validate the technical foundation supporting the inclusion within the Gallet Equation of factors for the Minimum Vegetation Clearance Distance (MVCD). Significant industry support for the

application of the Gallet Equation was a key factor in achieving approval for this standard. Contractor support is required to conduct the necessary research that provides the technical foundation supporting the use of the MVCD in the application of the vegetation management standard. \$350k of this amount is budgeted in 2014 and the remaining \$150k is budgeted in 2015. This research is supported by a draft Statement of Work prepared by Electric Power Research Institute (EPRI) involving approximately a 9-15 month period of effort and associated activity, ultimately leading to a final report, preliminarily targeted for release in 2015.

The research plan is intended to provide empirical technical support for the application of the Gallet equation and the associated factors related to the MVCD. These empirical tests will involve actual flash-over distances between conductors and trees/vegetation grown specifically for this purpose at the EPRI test facility in Lenox, Massachusetts. The research will evaluate such flash distances in a carefully calibrated environment and thereby validate through such data the actual application of the MVCD factors in the currently approved FAC-003 standard.

Subject to the availability of funding in 2013, the proposed schedule involves validating the research plan by the end of the third quarter 2013, beginning the initial work in the fourth quarter, with the bulk of the research effort contained in 2014. The final report is planned for the first half of 2015, and periodic status reports will be provided to interested stakeholders and regulatory authorities.

2. Vegetation Management on Public Lands

In the recent FERC Order approving the FAC-003 reliability standard for vegetation management, the Commission directed NERC to ascertain the issues surrounding access for vegetation and related maintenance for transmission assets crossing public lands. The FERC is concerned that issues arising from federal and state governed lands (e.g. – Bureau of Land Management areas, National/State forests, etc.) restrict access to transmission assets crossing such lands and may potentially lead to a reliability risk for outages and/or delayed restoration. Consulting resources will be utilized to develop a plan to gather technically valid information that would identify the nature and extent of such issues on public lands. The research plan as currently envisioned would work through existing industry groups to formulate and validate the information into a report submitted to the FERC advising of the range of issues encountered, and as warranted the potential means to address such issues.

3. Reliability Effects of GMD

The continuing efforts of the High Impact Low Frequency [HILF] work to expand the technical foundation for understanding the potential impact of GMD will involve continuation of the GMD Task Force work and research through EPRI in 2014. The current 2013 funding level of \$250,000 is expected to be required in 2014, targeting overall completion by the end of the year. The current work centers around providing a suite of technically valid tools and operational measures and transformer modeling, along with coordinating work efforts at the National Oceanic and Atmospheric Administration and space weather entities to understand the potential ranges of

geomagnetically induced currents from coronal mass ejections on the sun. The results will permit individual entities to conduct associated vulnerability assessments. Once the EPRI and industry efforts are completed, the Task Force can then finalize the tool development and associated baseline information. The objective for 2014 is to complete associated research efforts and conduct an overall assessment of the vulnerability assembled in a report that provides an indication of the how these factors potentially affect reliability of the bulk power system in North America.

Additional Resources to Support Compliance and Enforcement Reform (Reliability Assurance) Initiatives

During 2013 and consistent with the goals and objectives set forth in the Strategic Plan, NERC established a Reliability Assurance Initiative (RAI) as part of its stated objectives of ensuring bulk power system reliability, improving the efficiency and effectiveness of NERC and Regional Entity compliance and enforcement operations and reducing unnecessary costs to registered entities by focusing compliance oversight and enforcement resources on significant risks to reliability. Implementing the RAI program is a multi-year effort that involves compliance and enforcement process changes, development of new tools and training materials and a variety of related efforts. These initiatives are specifically aimed at moving the ERO to a culture of reliability through improved compliance monitoring and enforcement mechanisms. Moreover, these initiatives will also eliminate known problems with the current “zero tolerance” processes that place unnecessary administrative burdens on registered entities and consume far too much of NERC and Regional Entity resources.

The major RAI activities for 2013 include: (1) identifying and implementing process improvements to the self-reporting process; (2) implementing FFT enhancements; (3) developing an auditor handbook and checklist for use by compliance auditors; and, (4) initiating small prototype and pilot programs focused on developing entity risk assessments and developing processes for evaluating and testing internal controls. As further discussed under the Enforcement Department section of the 2014 Business Plan and Budget, the first two activities – self-reporting and FFT enhancements – seek to better align NERC and the Regional Entity enforcement processing activities with the level of risk the particular activity poses to the reliability of the BPS. These activities promote efficiencies for both the ERO Enterprise and registered entities by eliminating undue regulatory burdens, streamlining documentation and filing requirements, and substantially improving the processing of alleged violations and their companion mitigation plans. An audit handbook which is being developed in 2013 will be utilized across the entire ERO by all compliance auditors and will support the audit processes outlined in the audit check list. The audit handbook will address concerns voiced by registered entities, particularly those with operations in more than one region that differing audit practices exist in various regions and among various audit teams within those regions. Registered entities will benefit from the handbook because it will promote consistency in regional compliance audit practices, eliminating guesswork for entities in pre-audit preparations. Lastly, the prototypes and pilot programs will focus on how to best develop registered entity reliability risk assessment profiles and perform reviews and tests of internal controls. These pilots are an excellent means by which the newly developed tools and

procedures can be tested and modified based upon actual results from the field, firsthand experiences and lessons learned.

Three major activities are planned for 2014, which will build upon the framework and improvements implemented as a result of the ongoing RAI activities in 2013. These activities include: (1) developing a training program to support implementation of the common audit procedures developed in 2013; (2) assessment of the existing compliance, reporting, analysis tracking system (CRATS) and other compliance tools to support RAI activities; and (3) developing prototypes and pilot programs to support the development of registered entity reliability risk assessments and compliance monitoring scoping projects. These activities are necessary to implement the strategic reforms to the compliance monitoring and enforcement programs. The bulk of these activities will be resourced with staff from NERC and the Regional Entities. However, as detailed below, certain activities require funding for an outside consultant with specialized industry expertise or experience. Where appropriate the plan will leverage volunteers from industry. For instance, a number of prototypes and pilot programs will include testing operational aspects of the RAI activities with volunteer registered entities. This mix of resource will allow NERC to deliver the RAI deliverables in a timely way, at an effective cost, and in a manner that ensures ERO Enterprise personnel will be equipped to execute the new processes and procedures in future years. The details regarding the 2014 initiatives and contractor and required outside consulting resources to support these initiatives, including the benefits to registered entities, are further described in Section A of the Business Plan and Budget, under Compliance Operations.

Additional Resources to Support Enterprise Software Applications and Infrastructure

During 2013, considerable emphasis has been placed on the development of enterprise applications designed to align and consolidate those applications deemed to have similar business process and functions across NERC and the Regional Entities. Two business processes, the bulk electric system exceptions process and event information data analysis, were chosen by NERC and the Regional Entity Management Group as having enough similarities of business process and function to be deemed ERO Enterprise in nature. Therefore, a concerted effort was undertaken by NERC and the Regional Entities to gather business and functional requirements to build enterprise-wide applications supporting these processes that would culminate in an application package that would become operational in a dedicated data center facility. These applications will be used by both NERC and the Regional Entities to perform required business functions, thereby reducing multiple disparate applications and databases into single, agreed upon business applications.

The 2014 budget includes proposed incremental funding to support continuing efforts to consolidate and manage ERO Enterprise applications into a reliable, centrally managed dedicated hosting facility, by leveraging unique vendor capabilities to provide infrastructure services, security, back-up and recovery that would otherwise require NERC and the Regional Entities to run, secure and manage separate instances of the applications and databases, along with requirements to create connectivity between the multiple systems. Each enterprise application will be designed to offload the burden of multiple registrations by registered

entities, reduce manual efforts by NERC and Regional Entity staff to process manually volumes of data and significantly increase business intelligence and analytical capabilities.

A clear example of such an improvement is the design and implementation of an enterprise application (the “RADS” application) to replace the reliability assessment database, which currently requires hundreds of person hours both on the NERC and Regional Entity staff to process millions of data elements to populate up to 27 individual spreadsheets that are manually processed to culminate into the summer and winter seasonal assessments. Incremental funding would create an enterprise application allowing regional staffs to input data into forms that would automatically populate a central database for almost immediate creation of the data required for seasonal assessments, thereby significantly reducing person hours, potential for error and labor intensive effort to create the reports.

This multi-year application effort will also focus on a new centralized compliance application to replace the existing multiple applications used by NERC and the Regional Entities, as previously mentioned in connection with the Reliability Assurance Initiative. A centralized compliance application will provide multiple tangible benefits to include a secure, logically or physically segregated central database for management and reporting, and would also reduce the number of system touch points required in today’s environment to synchronize and manage the integrity of multiple databases. A new compliance application will create efficiencies and continue to foster process improvements through use of the same tool by multiple compliance and enforcement staffs.

Each enterprise application will be designed through a collaborative approach with the Regional Entities and in such a manner as to facilitate business intelligence and analytic capability with the appropriate level of security. In addition to providing a more cohesive view of data across applications and databases by NERC and the Regional Entity staffs, the environment will incorporate design features that would allow the Regional Entities, along with the general public, access to reporting and analytics, designed to facilitate dashboards and reporting either with anonymous access, or to enhanced feature functionality, upon proper vetting and approval.

The enterprise applications will be hosted and centrally managed from a dedicated state-of-the-art data center facility. The to-be-determined facility would incorporate all elements of infrastructure support to include system administration functions, tier 1-3 help desk, security, monitoring and back-up and recovery capability. A central hosted facility will achieve a single point of accountability, reduce security exposure by leveraging best in class security practices and technology, and standardize tools and technologies used among NERC and the Regional Entities.

The ERO Enterprise application and infrastructure plan and budget was developed as a multi-year strategic initiative. Projected costs over the 2014-2016 planning period are set forth in the detailed IT department description under the General and Administrative Program Area in Section A of the Business Plan and Budget. Management anticipates financing the development of the Enterprise IT applications and spreading the cost out over several years to mitigate the

impact on assessments and cash flow. Further details regarding the financing program are included in Exhibit D.

ES-ISAC Incremental Funding Needs

The resources currently devoted to supporting the ES-ISAC consist primarily of personnel and contractors who gather, analyze and provide information regarding cyber threats to industry through a secure communications portal and the costs to operate and maintain that portal. By having access to information regarding threats, including threats faced by other sectors such as the financial and communications industries, and the ability to analyze the potential impact of these threats on the electric sector and rapidly share this information with industry, the security of the electricity sector is improved.

To keep pace with the growth and risk of cyber attacks and the associated need for timely and effective information sharing with industry and other sectors in order to mitigate potential significant bulk power system reliability risk, NERC's 2014 budget includes a significant increase in the tools and technologies devoted to supporting ES-ISAC . This additional resource support is in three areas (1) tools and technologies for improving the usability and functionality of the information sharing portal to better allow the electric sector to receive and provide information to the ES-ISAC and to better allow the ES-ISAC to share information with other sector ISACs (2) the preparation of a cyber risk preparedness toolkit to allow industry to conduct self-assessments of cyber risk preparedness and (3) adding personnel to increase analytical capabilities, portal monitoring and information sharing and shift staffing on the National Cybersecurity and Communications Integration Center (NCCIC) floor. The additional cost in 2014 associated with improving the portal and information sharing capabilities consists primarily of software licensing fees. The preparation of the cyber risk preparedness toolkit will reduce the projected ongoing costs for NERC to conduct individual cyber risk preparedness assessments for industry in the absence of the industry having a tool to conduct these assessments.

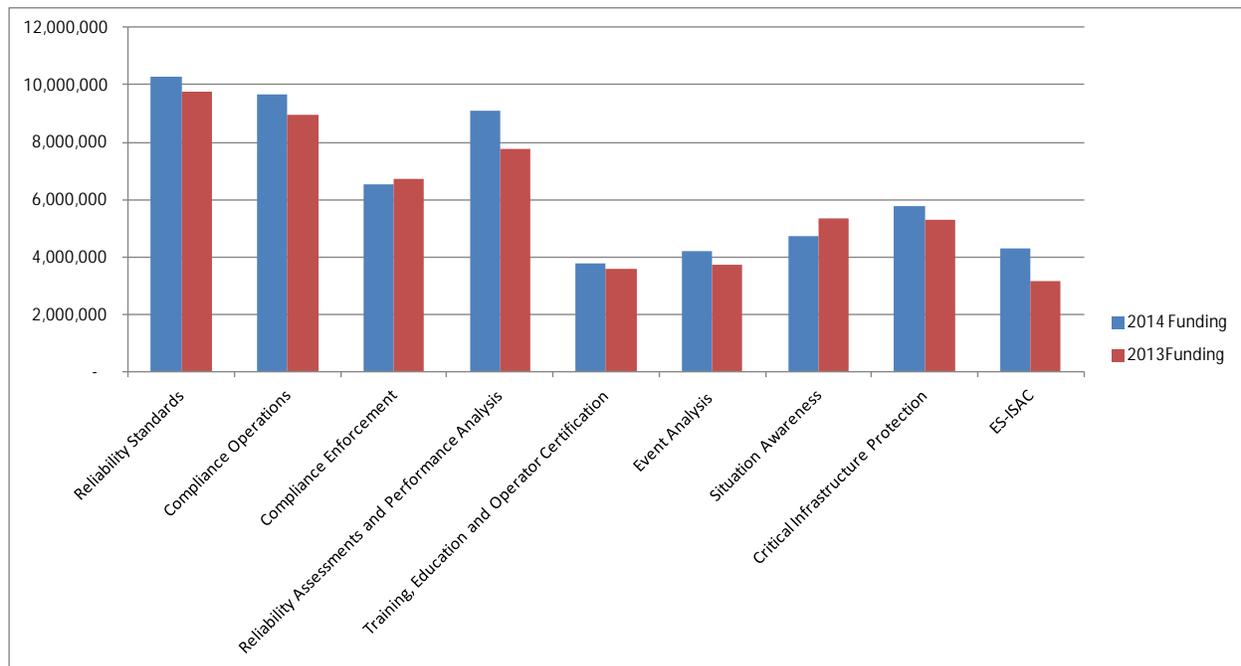
The federal government has been piloting a new form of highly secure information sharing network and associated technology that can be utilized to identify, track and deploy fixes to emerging cyber security threats. This project, a combination of what is known as the "Cyber Federated Model" (CFM) and "Cyber Risk Information Sharing Program" (CRISP), is at a point where the tools are ready to be commercialized. Federal funding provided to incubate this technology up to the point of commercialization is expected to be reduced or eliminated in 2014 and replaced by private sector sources of funding. NERC has not included any specific funding to support the commercialization of this portal and associated technology in 2014. However, once the additional details and specifics are known, and subject to other funding constraints, NERC may be able to utilize operating reserves to provide financial support for this initiative. The Joint Electric Executive Committee (JEEC)⁶ supports CFM and expanding deployment of CRISP, as well as the integration of these tools into the ES-ISAC. Further details

⁶ The JEEC consists of chief executives and trade associations representing electric utility and nuclear generators in the U.S. These executives have been meeting regularly with the deputy secretaries for DHS, DOE and other government agencies. As with the ESCC, the JEEC provides coordination between the industry and government regarding electricity sector security matters. It is anticipated that the JEEC will merge with the ESCC.

regarding the 2014 ES-ISAC budget and this initiative may be found in Section A of the Business Plan and Budget under Critical Infrastructure Protection.

The following table sets forth a 2013 to 2014 total budget (operating expenses plus fixed assets minus depreciation) comparison by department, followed by a bar chart comparison of funding by department.

Total Budget	Budget 2013	Budget 2014	Change 2014 Budget v 2013 Budget	% Change
Reliability Standards	9,775,088	10,294,662	519,574	5.3%
Compliance Operations	8,928,994	9,672,973	743,979	8.3%
Compliance Enforcement	6,725,004	6,537,500	(187,504)	-2.8%
Reliability Assessments and Performance Analysis	7,762,436	9,080,025	1,317,589	17.0%
Training, Education and Operator Certification	3,571,766	3,786,541	214,775	6.0%
Reliability Risk Management				
Event Analysis	3,738,430	4,187,488	449,058	12.0%
Situation Awareness	5,324,311	4,731,448	(592,863)	-11.1%
Critical Infrastructure Department				
Critical Infrastructure Protection	5,299,502	5,790,432	490,931	9.3%
ES-ISAC	3,160,725	4,276,676	1,115,951	35.3%
Total Budget	54,286,256	58,357,745	4,071,489	7.5%



The following chart presents a year over year comparison of FTEs by department and reflects 2013 personnel additions and inter-departmental transfers, attrition assumptions and proposed 2014 personnel additions. It is followed by a statement of activities comparing the 2013 and proposed 2014 budget.

Total FTE's by Program Area	Budget 2013	Budget 2014*	Change from 2013 Budget
STATUTORY			
Operational Programs			
Reliability Standards	26.50	25.92	(0.58)
Compliance Operations	24.00	23.04	(0.96)
Compliance Enforcement	21.00	18.24	(2.76)
Reliability Assessments and Performance Analysis	18.75	18.99	0.24
Training, Education and Operator Certification	8.00	8.16	0.16
Event Analysis	9.50	9.60	0.10
Situation Awareness	6.50	6.24	(0.26)
Critical Infrastructure Protection	12.50	12.48	(0.02)
ES-ISAC	6.75	8.22	1.47
Total FTEs Operational Programs	133.50	130.89	(2.61)
Administrative Programs			
General & Administrative	8.00	10.56	2.56
Legal and Regulatory	14.00	15.15	1.15
Information Technology	16.75	18.07	1.32
Human Resources	3.00	2.88	(0.12)
Finance and Accounting	11.00	12.48	1.48
Total FTEs Administrative Programs	52.75	59.14	6.39
Total FTEs	186.25	190.03	3.78

*Reflects 2013 additions and transfers between departments, and assumes 4% attrition in all programs

The complete NERC organizational chart is included in **Exhibit F**.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2013 Budget & Projection, and 2014 Budget							
STATUTORY							
	2013 Budget	2013 Projection	Variance 2013 Projection v 2013 Budget Over/(Under)	2014 Budget	Variance 2014 Budget v 2013 Budget Over/(Under)	2014 Budget Draft 1	Variance to Prior Draft Over/(Under)
Funding							
ERO Funding							
NERC Assessments	\$ 47,604,156	\$ 47,604,156	\$ (0)	\$ 53,015,743	\$ 5,411,587	\$ 52,408,076	\$ 607,667
Penalty Sanctions	2,512,500	2,512,500	-	290,000	(2,222,500)	-	290,000
Total NERC Funding	\$ 50,116,656	\$ 50,116,656	\$ (0)	\$ 53,305,743	\$ 3,189,087	\$ 52,408,076	\$ 897,667
Membership Dues	-	-	-	-	-	-	-
Testing Fees	1,680,000	1,680,000	-	1,620,000	(60,000)	1,620,000	-
Services & Software	-	30,909	30,909	50,000	50,000	-	50,000
Workshops	436,000	436,000	-	354,000	(82,000)	354,000	-
Interest	20,000	20,000	-	20,000	-	20,000	-
Miscellaneous	-	224	224	-	-	-	-
Total Funding (A)	\$ 52,252,656	\$ 52,283,789	\$ 31,133	\$ 55,349,743	\$ 3,097,087	\$ 54,402,076	\$ 947,667
Expenses							
Personnel Expenses							
Salaries	\$ 24,056,165	\$ 24,952,681	\$ 896,516	\$ 26,415,679	\$ 2,359,514	\$ 26,311,250	104,429
Payroll Taxes	1,459,710	1,487,811	28,101	1,582,500	122,790	1,574,624	7,876
Benefits	3,079,941	2,914,343	(165,598)	3,555,737	475,796	3,509,566	46,171
Retirement Costs	2,702,588	2,312,509	(390,079)	2,906,506	203,918	2,905,752	754
Total Personnel Expenses	\$ 31,298,403	\$ 31,667,344	\$ 368,940	\$ 34,460,422	\$ 3,162,018	\$ 34,301,192	159,230
Meeting Expenses							
Meetings	\$ 1,042,000	\$ 1,123,252	\$ 81,252	\$ 1,136,500	\$ 94,500	\$ 1,056,500	80,000
Travel	2,738,500	2,671,833	(66,667)	2,617,500	(121,000)	2,617,500	-
Conference Calls	317,810	256,586	(61,224)	233,500	(84,310)	233,500	-
Total Meeting Expenses	\$ 4,098,310	\$ 4,051,672	\$ (46,638)	\$ 3,987,500	\$ (110,810)	\$ 3,907,500	80,000
Operating Expenses							
Consultants & Contracts	\$ 8,816,254	\$ 8,463,931	\$ (352,323)	\$ 8,172,879	\$ (643,375)	\$ 6,399,240	1,773,639
Office Rent	2,756,840	2,695,217	(61,623)	2,617,300	(139,540)	2,613,300	4,000
Office Costs	3,181,515	3,211,063	29,548	3,531,074	349,559	3,510,070	21,004
Professional Services	2,291,331	2,339,093	47,762	2,290,280	(1,051)	2,290,280	-
Miscellaneous	21,500	20,405	(1,095)	36,500	15,000	51,500	(15,000)
Depreciation	1,579,801	1,863,843	284,042	2,333,006	753,205	-	2,333,006
Total Operating Expenses	\$ 18,647,241	\$ 18,593,552	\$ (53,689)	\$ 18,981,039	\$ 333,798	\$ 14,864,390	\$ 4,116,649
Total Direct Expenses	\$ 54,043,954	\$ 54,312,568	\$ 268,613	\$ 57,428,961	\$ 3,385,006	\$ 53,073,082	\$ 4,355,879
Indirect Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Non-Operating Expenses	\$ 50,000	\$ 128,160	\$ 78,160	\$ 144,000	\$ 94,000	\$ 50,000	\$ 94,000
Total Expenses (B)	\$ 54,093,954	\$ 54,440,728	\$ 346,773	\$ 57,572,961	\$ 3,479,006	\$ 53,123,082	\$ 4,449,879
Change in Assets	\$ (1,841,298)	\$ (2,156,939)	\$ (315,640)	\$ (2,223,218)	\$ (381,919)	\$ 1,278,994	(3,502,212)
Fixed Assets							
Depreciation	\$ (1,579,801)	\$ (1,863,843)		\$ (2,333,006)	\$ (753,205)	\$ -	\$ (2,333,006)
Computer & Software CapEx	1,556,100	2,366,647	810,547	2,904,790	1,348,690	1,488,800	1,415,990
Furniture & Fixtures CapEx	-	337,684	337,684	-	-	-	-
Equipment CapEx	216,000	470,697	254,697	213,000	(3,000)	213,000	-
Leasehold Improvements	-	77,803	77,803	-	-	-	-
Allocation of Fixed Assets	\$ -	\$ 0	\$ 0	\$ -	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets (C)	192,299	1,388,988	1,480,731	784,784	592,485	1,701,800	(917,016)
TOTAL BUDGET (-B + C)	\$ 54,286,253	\$ 55,829,716	\$ 1,827,504	\$ 58,357,745	\$ 4,071,491	\$ 54,824,882	\$ 3,532,863

Projections for 2015-2016

Management has developed preliminary operating and fixed asset (capital) budget projections for 2015 and 2016. These projections assumed (1) increases in projected 2014 year end personnel (salary and benefit) and operating (e.g., rent, communications and internet expense, meeting, travel, etc.) expenses similar to 2014 (2) the projected Enterprise IT application funding requirements set forth in greater detail in Section A under Information Technology, as well as Exhibit D, and (3) projected increases in ES-ISAC operating costs to maintain and provide the additional tools and services described above. Contractor and consulting costs for all departments other than ES-ISAC were generally maintained at 2014 funding levels. These projections are preliminary in nature, set forth in the comparative statement of activities below and will continue to be reviewed and updated in connection with the preparation of the final draft of NERC's 2014 Business Plan and Budget. The amount of the projected assessment increase in 2015 is primarily due to preliminary projection of principal and interest payments

associated with the financing of Enterprise IT applications in 2013, 2014, and 2015. The assumptions underlying these projections, as well as methods to further reduce projected assessment increases, will continue to be reviewed in connection with the preparation of the final draft of the business plan and budget.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital							
2014 Budget & Projected 2015 and 2016 Budgets							
	2014 Budget	2015 Projection	\$ Change 15 v 14	% Change 15 v 14	2016 Projection	\$ Change 16 v 15	% Change 16 v 15
Funding							
ERO Funding							
NERC Assessments	\$ 53,015,743	\$ 58,179,768	\$ 5,164,024	9.74%	\$ 59,094,698	\$ 914,930	1.5%
Penalty Sanctions	290,000	-	(290,000)	-100.00%	-	-	
Total NERC Funding	\$ 53,305,743	\$ 58,179,768	\$ 4,874,024	9.1%	\$ 59,094,698	\$ 914,930	1.5%
Membership Dues	-	-	-	-	-	-	-
Testing Fees	1,620,000	1,620,000	-	0.00%	1,620,000	-	0.0%
Services & Software	50,000	50,000	-	0.00%	50,000	-	0.0%
Workshops	354,000	354,000	-	0.00%	354,000	-	0.0%
Interest	20,000	20,000	-	0.00%	20,000	-	0.0%
Miscellaneous	-	-	-	-	-	-	-
Total Funding (A)	\$ 55,349,743	\$ 60,223,768	\$ 4,874,024	8.8%	\$ 61,138,698	\$ 914,930	1.5%
Expenses							
Personnel Expenses							
Salaries	\$ 26,415,679	\$ 27,208,149	\$ 792,470	3.0%	\$ 28,024,394	\$ 816,244	3.0%
Payroll Taxes	1,582,500	1,629,975	47,475	3.0%	1,678,874	48,899	3.0%
Benefits	3,555,737	3,857,975	302,238	8.5%	4,185,902	327,928	8.5%
Retirement Costs	2,906,506	2,993,701	87,195	3.0%	3,083,512	89,811	3.0%
Total Personnel Expenses	\$ 34,460,422	\$ 35,689,800	\$ 1,229,378	3.6%	\$ 36,972,683	\$ 1,282,883	3.6%
Meeting Expenses							
Meetings	\$ 1,136,500	\$ 1,136,500	\$ -	0.0%	\$ 1,136,500	\$ -	0.0%
Travel	2,617,500	2,617,500	-	0.0%	2,617,500	-	0.0%
Conference Calls	233,500	233,500	-	0.0%	233,500	-	0.0%
Total Meeting Expenses	\$ 3,987,500	\$ 3,987,500	\$ -	0.0%	\$ 3,987,500	\$ -	0.0%
Operating Expenses							
Consultants & Contracts	\$ 8,172,879	\$ 8,599,710	426,831	5.2%	\$ 7,093,837	(1,505,873)	-17.5%
Office Rent	2,617,300	2,632,300	15,000	0.6%	2,657,300	25,000	0.9%
Office Costs	3,531,074	3,752,979	221,905	6.3%	3,752,979	0	0.0%
Professional Services	2,290,280	2,290,280	-	0.0%	2,290,280	-	0.0%
Miscellaneous	36,500	36,500	-	0.0%	36,500	-	0.0%
Depreciation	2,333,006	2,114,705	(218,301)	-9.4%	2,750,705	636,000	30.1%
Total Operating Expenses	\$ 18,981,039	\$ 19,426,474	\$ 445,435	2.3%	\$ 18,581,601	\$ (844,873)	-4.3%
Total Direct Expenses	\$ 57,428,961	\$ 59,103,775	\$ 1,674,813	2.9%	\$ 59,541,784	\$ 438,010	0.7%
Indirect Expenses	\$ -	\$ -	\$ -	-	\$ -	\$ -	-
Other Non-Operating Expenses	\$ 144,000	\$ 236,000	\$ 92,000	63.9%	247,000	11,000	4.7%
Total Expenses (B)	\$ 57,572,961	\$ 59,339,775	\$ 1,766,813	3.1%	\$ 59,788,784	449,010	0.8%
Change in Assets	\$ (2,223,218)	\$ 883,993	\$ 3,107,211	-139.8%	\$ 1,349,914	\$ 465,921	52.7%
Fixed Assets							
Depreciation	\$ (2,333,006)	\$ (2,114,705)	\$ 218,301	-9.4%	\$ (2,750,705)	\$ (636,000)	30.1%
Computer & Software CapEx	2,904,790	5,017,500	2,112,710	72.7%	3,167,500	(1,850,000)	-36.9%
Furniture & Fixtures CapEx	-	-	-	-	-	-	-
Equipment CapEx	213,000	535,000	322,000	151.2%	535,000	-	0.0%
Leasehold Improvements	-	-	-	-	-	-	-
Allocation of Fixed Assets	-	-	-	-	-	-	-
Inc(Dec) in Fixed Assets (C)	\$ 784,784	\$ 3,437,795	\$ 2,653,011	338.1%	\$ 951,795	\$ 465,921	0.0%
TOTAL BUDGET (=B + C)	\$ 58,357,745	\$ 62,777,569	\$ 4,419,824	7.6%	\$ 60,740,579	\$ 449,010	0.7%
FTEs	190.03	192.00	1.97		192.00	-	

Section A — 2014 Business Plan and Budget- Program Area and Department Detail

Reliability Standards

Reliability Standards Program (in whole dollars)			
	2013 Budget	2014 Budget	Increase (Decrease)
Total FTEs	26.50	25.92	(0.58)
Direct Expenses	\$ 5,134,738	\$ 5,154,757	\$ 20,019
Indirect Expenses	\$ 4,581,241	\$ 4,996,937	\$ 415,696
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 59,109	\$ 142,968	\$ 83,859
TOTAL BUDGET	\$ 9,775,088	\$ 10,294,662	\$ 519,573

Background and Scope

NERC's Reliability Standards Program develops and maintains standards designed to ensure the reliability of the bulk power system in North America. 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 bulk power system.

NERC's ANSI-accredited standards development process was reaccredited in 2013 and found to be open, balanced, and transparent. As part of the standard development process, industry technical experts scope, draft, and review and the new or revised NERC Reliability Standards for approval by the industry ballot body and adoption by the Board and filing with regulatory authorities in the United States and Canada.

The major activities undertaken by NERC's Standard department include:

1. **Delivering high-quality, continent-wide reliability standards:** NERC standard developers and other standards staff provide project management and leadership for informal standard development activities, facilitate drafting team activities, support drafting, assist the drafting teams in maintaining adherence to the development process as outlined in the Standard Processes Manual, and ensure that the quality of documents produced are appropriate for approval by industry and the Board
2. **Facilitating continent-wide industry engagement:** NERC manages the work of over 200 industry contributors serving on the Standards Committee and subgroups as well as informal development, standards drafting, interpretation and other project teams for the development of NERC standards through its standards development program.

3. **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 standard products created by the standard drafting teams. The department also supports the filing of standards with regulatory authorities, and provides support in connection with regulatory proceedings.

The standards program also provides a mechanism for the eight Regional Entities to process regional standards when reliability gaps are detected at the regional level. The NERC standards 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 to the applicable regulatory authorities in the United States and Canada for adoption.

Key Standards Production Efforts Underway in 2013

Several years ago NERC's standards department began laying the foundation to transition from the existing set of NERC standards to a clear, concise, and stable body of world-class, high-quality standards that ensure the reliability of the bulk power system. In 2013 the standards department is taking additional steps to address regulatory directives and conduct quality reviews of existing standards. These actions are vital to ensuring standards are focused on significant reliability risks, as well as reducing regulatory uncertainty. The three major work streams include:

- **Existing Projects/Emerging Issues** — ensuring projects that either support high-risk reliability issues or emerging reliability issues are initiated or remain on schedule
- **Five Year Reviews – initiating the** review of standards which were due for assessment and which have not been revised in recent development projects
- **Directives** – addressing FERC directives

In conjunction with these work streams, two major initiatives were created to ensure standards address reliability risks and to eliminate standards or requirements that do not significantly benefit reliability and create unnecessary compliance burdens on industry:

- **Paragraph 81 Initiative:** On March 15, 2012, the Commission issued an Order on NERC's Find, Fix, Track and Report (FFT) program. In the Order, NERC was invited to make a proposal to the Commission identifying specific standards or requirements that need to be revised or retired because of the lack of any meaningful benefit to bulk power system reliability.
- **Results-Based Standards Initiative:** ensuring that standards are focused on required actions or results (the "what") and not necessarily on the methods by which to accomplish those actions or results (the "how").

These two initiatives were applied to each standard or group of standards within the three major work streams to ensure that requirements with little or no benefit to reliability are eliminated and all new or revised standards are results-based. It is expected that these

initiatives will lead to a concise set of standards that have the necessary combination of risk-, performance-, and capability-based requirements to ensure bulk power system reliability.

Based on the recommendation of the Member Representatives Committee's Standards Process Improvement Group, in 2013 NERC also began piloting methods to measure cost-effectiveness of standards under development. The goal of this work is to ensure that the standards development process produces standards that cost-effectively address reliability gaps.

Finally, a key departmental objective is to transform the existing set of standards to a world-class, results-based and stable body of standards that are truly focused on supporting bulk power system reliability. To set the foundation for this transformation, NERC formed a standards independent expert review panel to evaluate NERC's standards and associated requirements. This panel will rate each standard requirement's content and quality. Their report will include recommendations to retire or improve requirements, as well as form the basis for a roadmap to support the standards development plan and standards transformation.

2014 Goals and Deliverables

In 2014, the Standards department resources will be focused on three areas:

Transforming NERC's standards to high quality, world-class results-based standards: NERC will complete its foundational work by addressing remaining regulatory obligations specified in regulatory directives and outstanding Paragraph 81 Phase 2 requirements candidates. Based on the work from the standards independent expert review panel, the 2014-2016 Reliability Standards Development Plan will launch a standard transformation to world-class, results-based standards in steady-state. This transformation is expected to take approximately three years.

Develop a bulk power system reliability risk profile: In coordination with the Reliability Issues Steering Committee and the ERO's technical committees, the department will develop an overall North American-wide reliability risk profile for the bulk power system. Existing standards will then be evaluated to identify any high-risk reliability gaps. Risk-based standard development will be further refined and prioritized to address high-risk reliability gaps.

Develop methods to assess and manage cost effectiveness (benefit) of new standards: Additional pilots to assess the cost effectiveness of standards will be undertaken in order to lay the groundwork for an adoption of approaches to better inform the standards development process regarding the cost-effectiveness of alternative approaches to meeting reliability objectives.

Resource Requirements

Personnel

As in prior years, industry engagement is vital to the success of NERC's Standards Program area. In 2014, industry subject matter expert engagement requirements will remain steady from 2013, as the completion of the remaining projects from 2013 finalize in the first quarter of 2014. The transformation of NERC standards to steady-state will require additional industry

engagement throughout 2014 to support the transition from the current set of standard to a world-class body of standards that address risks to bulk power system reliability.

NERC Standards Program Area management is also continually considering ways to improve the efficiency of standard development activities. In 2013, NERC gained regulatory approval of revisions to its *Standard Processes Manual* which adopted changes, consistent with ANSI requirements, for standards development and provides the potential to shorten standards development timeframes. Further, in late 2012, the NERC standards department evaluated the 2012 organization and determined changes were required to refocus resources on the production of standards, rather than executing and monitoring process. In October, the department was realigned into three teams of standards developers and one team focused on information management.

No additional personnel are planned to be added to the Standards department in 2014. The 0.58 reduction in FTEs is due to the assumption of 4% attrition in all departments. However, an increase in departmental travel expense is expected given the number of standards initiatives, which are expected to be underway.

Contractors and Consultants

No contractor and consulting support is budgeted in 2014, representing a \$150k reduction from the 2013 budget.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2013 Budget & Projection, and 2014 Budget					
RELIABILITY STANDARDS					
	2013 Budget	2013 Projection	Variance 2013 Projection v 2013 Budget Over(Under)	2014 Budget	Variance 2014 Budget v 2013 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 9,156,330	\$ 9,156,330	\$ -	\$ 10,127,981	\$ 971,651
Penalty Sanctions	510,788	510,788	-	58,720	(452,068)
Total NERC Funding	\$ 9,667,118	\$ 9,667,118	\$ -	\$ 10,186,702	\$ 519,584
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	104,000	104,000	-	104,000	-
Interest	3,970	4,164	194	3,961	(9)
Miscellaneous	-	-	-	-	-
Total Funding (A)	\$ 9,775,088	\$ 9,775,282	\$ 194	\$ 10,294,662	\$ 519,574
Expenses					
Personnel Expenses					
Salaries	\$ 3,335,519	\$ 3,279,160	\$ (56,359)	\$ 3,308,688	\$ (26,831)
Payroll Taxes	213,052	209,607	(3,445)	210,130	(2,922)
Benefits	350,484	355,836	5,352	482,501	132,017
Retirement Costs	362,334	340,427	(21,907)	377,588	15,254
Total Personnel Expenses	\$ 4,261,388	\$ 4,185,030	\$ (76,359)	\$ 4,378,907	\$ 117,518
Meeting Expenses					
Meetings	\$ 164,000	\$ 224,000	\$ 60,000	\$ 185,000	\$ 21,000
Travel	372,500	452,000	79,500	425,000	52,500
Conference Calls	108,500	83,983	(24,517)	75,000	(33,500)
Total Meeting Expenses	\$ 645,000	\$ 759,983	\$ 114,983	\$ 685,000	\$ 40,000
Operating Expenses					
Consultants & Contracts	\$ 150,000	\$ 380,367	\$ 230,367	\$ -	\$ (150,000)
Office Rent	-	-	-	-	-
Office Costs	77,850	87,455	9,605	90,350	12,500
Professional Services	-	-	-	-	-
Miscellaneous	500	500	-	500	-
Depreciation	-	2,141	2,141	-	-
Total Operating Expenses	\$ 228,350	\$ 470,463	\$ 242,113	\$ 90,850	\$ (137,500)
Total Direct Expenses	\$ 5,134,738	\$ 5,415,475	\$ 280,736	\$ 5,154,757	\$ 20,018
Indirect Expenses	\$ 4,581,241	\$ 4,928,154	\$ 346,913	\$ 4,996,937	\$ 415,696
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 9,715,979	\$ 10,343,630	\$ 627,650	\$ 10,151,694	\$ 435,714
Change in Assets	\$ 59,109	\$ (568,348)	\$ (627,456)	\$ 142,968	\$ 83,860
Fixed Assets					
Depreciation	\$ -	\$ (2,141)	\$ (2,141)	\$ -	\$ -
Computer & Software CapEx	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	\$ 59,109	71,830	12,721	142,968	83,859
Inc(Dec) in Fixed Assets (C)	59,109	69,689	10,580	142,968	83,859
TOTAL BUDGET (=B + C)	\$ 9,775,088	\$ 10,413,319	\$ 638,230	\$ 10,294,662	\$ 519,573
FTEs	26.50	26.42	(0.08)	25.92	(0.58)

Compliance Monitoring and Enforcement and Organization Registration and Certification

The Compliance Monitoring and Enforcement and Organization Registration and Certification Program's purpose is to monitor, enforce and ensure compliance with the ERO's mandatory standards. This program area includes oversight of the registration and certification of BPS users, owners and operators and is broken down into two departments for operational and financial reporting purposes: (1) the Compliance Operations department; (2) the Enforcement department.

Compliance Operations Department

Compliance Operations (in whole dollars)			
	2013 Budget	2014 Budget	Increase (Decrease)
Total FTEs	24.00	23.04	(0.96)
Direct Expenses	\$ 4,787,043	\$ 5,104,168	\$ 317,126
Indirect Expenses	\$ 4,149,048	\$ 4,441,722	\$ 292,674
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ (7,098)	\$ 127,083	\$ 134,181
TOTAL BUDGET	\$ 8,928,994	\$ 9,672,973	\$ 743,981

Background and Scope

NERC's Compliance Operations department works collaboratively with the eight Regional Entities to ensure consistent and effective implementation of the Compliance Monitoring and Enforcement Program (CMEP).

The Compliance Operations department is responsible for the following major activities and functions:

- Consistent implementation of the risk-based compliance monitoring program, including registration and certification, for reliability improvements;
- ERO education programs that support industry compliance, and the integration of risk assessment and internal controls;
- Development of minimum baseline monitoring requirements;
- Oversight of the Regional Entities' delegated compliance functions including:
 - § CMEP planning, implementation, and reporting
 - § Compliance operations and coordination
 - § Auditor training
- Development and maintenance of Reliability Standards Audit Worksheets (RSAWs); and
- Support for the Compliance and Certification Committees (CCC).

2014 Goals and Deliverables

Reliability Assurance Initiative

During 2013, consistent with the goals and objectives set forth in the Strategic Plan, NERC established a Reliability Assurance Initiative (RAI) as part of its stated objectives of ensuring bulk power system reliability, improving the efficiency and effectiveness of NERC and Regional Entity compliance and enforcement operations and reducing unnecessary costs to registered entities by focusing compliance oversight and enforcement resources on significant risks to reliability. Implementing the RAI program is a multi-year effort that involves compliance and enforcement process changes, development of new tools and training materials and a variety of related efforts. These initiatives are specifically aimed at moving the ERO to a culture of reliability through improved compliance monitoring and enforcement mechanisms. Moreover, these initiatives will also eliminate known problems with the current “zero tolerance” processes that place unnecessary administrative burdens on registered entities and consume far too much of NERC and Regional Entity resources.

The major RAI activities for 2013 include: (1) identifying and implementing process improvements to the self-reporting process; (2) implementing FFT enhancements; (3) developing an auditor handbook and checklist for use by compliance auditors; and, (4) initiating small prototype and pilot programs focused on developing entity risk assessments and developing processes for evaluating and testing internal controls. As further discussed under the Enforcement Department section of the 2014 Business Plan and Budget, the first two activities – self-reporting and FFT enhancements – seek to better align NERC and the Regional Entity enforcement processing activities with the level of risk the particular activity poses to the reliability of the bulk power system. These activities promote efficiencies for both the ERO Enterprise and registered entities by eliminating undue regulatory burdens, streamlining documentation and filing requirements, and substantially improving the processing of alleged violations and their companion mitigation plans. An audit handbook which is being developed in 2013 will be utilized across the entire ERO by all compliance auditors and will support the audit processes outlined in the audit check list. The audit handbook will address concerns voiced by registered entities, particularly those with operations in more than one region that differing audit practices exist in various regions and among various audit teams within those regions. Registered entities will benefit from the handbook because it will promote consistency in regional compliance audit practices, eliminating guesswork for entities in pre-audit preparations. Lastly, the prototypes and pilot programs will focus on how to best develop registered entity reliability risk assessment profiles and perform reviews and tests of internal controls. These pilots are an excellent means by which the newly developed tools and procedures can be tested and modified based upon actual results from the field, firsthand experiences and lessons learned.

Three major activities are planned for 2014 which will build upon the framework and improvements implemented as a result of the ongoing RAI activities in 2013. These activities include: (1) developing a training program to support implementation of the common audit procedures developed in 2013; (2) assessment of the existing compliance, reporting, analysis tracking system (CRATS) and other compliance tools to support RAI activities; and (3) developing prototypes and pilot programs to support the development of registered entity

reliability risk assessments and compliance monitoring scoping projects. These activities are necessary to implement the strategic reforms to the compliance, monitoring and enforcement programs. The bulk of these activities will be resourced with staff from NERC and the Regional Entities. However, as detailed below, certain activities require funding for an outside consultant with specialized industry expertise or experience. Where appropriate the plan will leverage volunteers from industry. For instance, a number of prototypes and pilot programs will include testing operational aspects of the RAI activities with volunteer registered entities. This mix of resource will allow NERC to deliver the RAI deliverables in a timely way, at an effective cost, and in a manner that ensures ERO Enterprise personnel will be equipped to execute the new processes and procedures in future years. The details regarding the 2014 initiatives and contractor and consulting resources are further described below.

(1) *Developing a training program to support implementation of common audit procedures*

The Compliance Operations department responsibilities include supporting the development of highly qualified and trained compliance operations and auditing staffs at both NERC and the Regional Entities by ensuring the proper qualifications of personnel for auditing and other essential compliance roles and providing proper training. A training program is also necessary to support the implementation of compliance monitoring and enforcement activities related to RAI. NERC will work directly with the Regional Entities to develop proper implementation and integration of the tools and processes developed during 2013, specifically the RAI Standardized Compliance Auditor Handbook and Checklist, and also incorporate lessons learned from the pilots. This training is essential for ensuring that all regions are consistently applying the procedures and methodologies identified in the audit handbook. Additionally, the training program will address any other auditor needs associated with RAI improvements to the Compliance Monitoring and Enforcement Program (CMEP), including redesigned compliance communication tools. Another key component of the training program will focus on implementing changes related to enforcement processing, specifically changes to the self-reporting process and enhancements to the FFT process. This program will be developed in collaboration with the Regions and coordinated by NERC. External resources are needed to assist in developing these materials in time so they can be delivered throughout 2014. The 2014 budget for external consulting support for these training-related activities is \$150k, with another \$150k projected in 2015.

This training will provide a significant benefit to registered entities because it will promote consistency of approach in the audit practices utilized by the regional audit teams. Regional Entity audit staffs will be trained on the proper practices for use by their auditor teams, which will promote audit consistency both in approach and performance and thereby also benefit registered entities. The training will address topics such as the proper timing for document requests, the types of documentation requested, the quality and level of detail necessary for various types of acceptable evidence, and the ability of the entity to present alternative forms of evidence to exhibit compliance. Setting clear expectations for registered entities regarding audit practices and procedures should also allow registered entities to increase the efficiency and effectiveness of their pre-audit preparation.

(2) Assessing existing compliance tools that support compliance and enforcement operations

One key RAI activity for 2014 is the assessment and development of the ERO's Compliance Reporting and Tracking System (CRATS) and/or other available information systems and tools that are necessary to support the implementation and management of risk-based compliance monitoring and enforcement activities across both NERC and the Regional Entities. The current CRATS software application is used to manage compliance and enforcement information through a combination of: (i) SharePoint for physical document retention, (ii) a violation-tracking database with a translator and (iii) two different database applications. As further described below, the capabilities of the current system will not support the compliance and enforcement process improvements which are contemplated under the Strategic Plan and which will be designed and implemented through the RAI. The improvements in the self-reporting process and FFT enhancements will result in changes in compliance and enforcement data, retention requirements and analysis which will, in turn, require changes to the supporting information systems and database management capabilities within CRATS.

Resources are needed to assess and make enhancements to the CRATS program or develop a replacement application. Outside consulting resources will be required to support this work. The major undertakings requiring consulting support in 2014 will include:

- A comprehensive assessment of the CRATS application and other compliance and enforcement platforms currently in use by the Regional Entities.
- Identification of the data and analytic requirements needed to support the risk assessment and processing requirements associated with RAI.
- Identification of how and the extent to which CRATS and any Regional Entity applications can be utilized and incorporated into the newly developed enforcement processing activities, including contemplated changes in self-reporting and FFT enhancements. These tools must ensure data integrity and accuracy to allow for effective oversight, as well as be flexible enough to accommodate possible segregation of matters not pursued through enforcement and streamlined reporting requirements.
- Recommendations regarding the development of an ERO-wide compliance information management and reporting system, including identification of the best platform to support this system.

This use of consultants in 2014 will be focused on defining the business requirements for the tools needed to enable the RAI-related changes. These requirements and recommendations will be used to guide future ERO Enterprise applications development, which is anticipated beginning in 2015. \$250K has been budgeted for these external consulting resource needs in 2014.

(3) Assessing reliability risks and scoping compliance monitoring

In 2014, NERC and the Regional Entities will develop new prototype audit processes based on lessons learned from the 2013 pilots. This work will include an analysis of the results of the 2013 pilots, refining assessments of risk in the determination of audit scoping, and designing a second wave of pilots to test these updated procedures.

Lessons learned from the 2013 pilot programs will be shared with registered entities, so that they can be incorporated into their respective risk assessments. Additionally, it is also contemplated that during 2014 an industry team working with NERC and the Regional Entities will develop guidance documents on internal controls for use by registered entities. As part of the development of these guidance documents, the team will prepare scoping materials regarding how a registered entity's internal controls could be assessed and tested to provide a reasonable assurance of compliance with applicable standards. This information will then be utilized to later develop and document a methodology that can be provided to the registered entities for use in developing their internal control programs.

The core concept of risk-based compliance monitoring is to provide guidance to Regional Entities regarding how to appropriately scope compliance monitoring activities and methods (frequency and scope of standards to be monitored) based on each entity's potential impact to the bulk power system. Through continued refinement of the risk-based compliance monitoring program, NERC seeks to ensure that registered entities are monitored in a cost-effective manner. Registered entities will also benefit from these activities since the development of this methodology will take into account differences in registered entity size and the differing levels of risk posed to the bulk electric system and will provide the appropriate scoping of audits. The emphasis on internal controls will also benefit registered entities by influencing the type of compliance approach used and the amount of monitoring deemed necessary to establish a reasonable assurance of compliance. Enhanced compliance monitoring approaches and properly scoped audits translate into reduced resources expended and other compliance-related savings for registered entities.

NERC's 2014 budget does not include funding for outside consultants to support the development of these scoping materials in 2014 and instead contemplates this work will be undertaken by internal resources with industry support.

Registration Efficiencies

Throughout 2014, the Compliance Operations department, in coordination with the Regional Entities, will continue registered entity mapping activities to ensure the registry criteria is accurate and that gaps and duplication registrations and compliance monitoring do not occur. NERC takes its obligation seriously to ensure that all entities that should be registered are accounted for.

Part of this effort includes enabling the registration process to be flexible and cost-effective. This is one way to increase the likelihood that applicable entities of all sizes and resource levels are able to become registered. Having appropriate registration is critical to compliance monitoring activities and to enforcement activities. Elimination of duplicative or concurrent registration equates to better use of resources at both the registered entity level in the implementation of compliance programs, and at the Regional level in regard to overall compliance monitoring efforts.

Ensure Industry Understanding of Compliance Requirements, Reduce Unnecessary Compliance Documentation and Support Standards Development

The Compliance Operations department will continue efforts to ensure that all registered entities understand their compliance obligations and how compliance will be assessed. Compliance department staff will continue its work in reducing the variety of compliance documents currently produced and revising the RSAW tool to be more effective and less burdensome. An RSAW must provide sufficient information to assist auditors in assessing compliance; as well, an entity should be able to utilize an RSAW as a tool to measure its compliance and prepare for an audit.

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

NERC's goal is for registered entities to have effective compliance programs and internal controls. As discussed in connection with the RAI, greater consideration of internal controls in the compliance monitoring program is a proactive and forward-looking method of supporting reliability. NERC, the Regional Entities, and industry collaborated to improve the risk-based compliance monitoring program. The result is an Entity Impact Evaluation template that will support a consistent, risk-based approach to how registered entities can be assessed and how compliance monitoring activities may be scoped. As this component of the risk-based compliance monitoring program matures, NERC will rely on industry volunteers for participation in further developing this program.

Regional Entity Audit Oversight

Compliance Operations department staff will oversee Regional Entity audits, as well as conduct Key Reliability Standard Spot Checks.

Resource Requirements

Personnel

The Compliance Operations department is not proposing the addition of staff in 2014. The 0.96 reduction in FTEs is due to the assumption of 4% attrition in all departments and due to the transfer of 1.0 FTE to another department in 2013.

Contractors and Consultants

As discussed above in connection with the RAI, NERC has budgeted a total of \$400k in contractor and consulting support for the RAI in 2014, including \$150k for outside consulting support for the development of auditor training materials and \$250k for outside consulting support to assist in the assessment of the existing software application supporting compliance, registration and enforcement operations and the definition of the business requirements to

update or replace the existing application, with development and funding of the replacement application to be undertaken in 2015.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2013 Budget & Projection, and 2014 Budget					
COMPLIANCE OPERATIONS, INVESTIGATIONS and ORGANIZATION REGISTRATION and CERTIFICATION					
	2013 Budget	2013 Projection	Variance 2013 Projection v 2013 Budget Over(Under)	2014 Budget	Variance 2014 Budget v 2013 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 8,422,798	\$ 8,422,798	\$ (0)	\$ 9,577,256	\$ 1,154,458
Penalty Sanctions	462,601	462,601		52,196	(410,405)
Total NERC Funding	<u>\$ 8,885,399</u>	<u>\$ 8,885,399</u>	<u>\$ (0)</u>	<u>\$ 9,629,452</u>	<u>\$ 744,053</u>
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	40,000	40,000	-	40,000	-
Interest	3,596	3,702	106	3,521	(75)
Miscellaneous	-	-	-	-	-
Total Funding (A)	<u>\$ 8,928,994</u>	<u>\$ 8,929,101</u>	<u>\$ 106</u>	<u>\$ 9,672,973</u>	<u>\$ 743,978</u>
Expenses					
Personnel Expenses					
Salaries	\$ 3,202,041	\$ 3,169,165	\$ (32,876)	\$ 3,192,809	\$ (9,232)
Payroll Taxes	202,103	200,843	(1,260)	202,068	(35)
Benefits	325,579	385,838	60,259	428,890	103,311
Retirement Costs	368,031	331,159	(36,872)	364,901	(3,130)
Total Personnel Expenses	<u>\$ 4,097,754</u>	<u>\$ 4,087,005</u>	<u>\$ (10,749)</u>	<u>\$ 4,188,668</u>	<u>\$ 90,914</u>
Meeting Expenses					
Meetings	\$ 80,000	\$ 80,000	\$ -	\$ 70,000	\$ (10,000)
Travel	440,500	367,561	(72,939)	367,500	(73,000)
Conference Calls	34,235	15,481	(18,754)	4,000	(30,235)
Total Meeting Expenses	<u>\$ 554,735</u>	<u>\$ 463,042</u>	<u>\$ (91,693)</u>	<u>\$ 441,500</u>	<u>\$ (113,235)</u>
Operating Expenses					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ 400,000	\$ 400,000
Office Rent	-	-	-	-	-
Office Costs	73,424	76,951	3,527	73,500	76
Professional Services	-	-	-	-	-
Miscellaneous	500	500	-	500	-
Depreciation	60,630	64,869	4,239	-	(60,630)
Total Operating Expenses	<u>\$ 134,554</u>	<u>\$ 142,321</u>	<u>\$ 7,767</u>	<u>\$ 474,000</u>	<u>\$ 339,446</u>
Total Direct Expenses	<u>\$ 4,787,043</u>	<u>\$ 4,692,367</u>	<u>\$ (94,676)</u>	<u>\$ 5,104,168</u>	<u>\$ 317,125</u>
Indirect Expenses	<u>\$ 4,149,048</u>	<u>\$ 4,381,618</u>	<u>\$ 232,570</u>	<u>\$ 4,441,722</u>	<u>\$ 292,674</u>
Other Non-Operating Expenses	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Total Expenses (B)	<u>\$ 8,936,092</u>	<u>\$ 9,073,985</u>	<u>\$ 137,894</u>	<u>\$ 9,545,890</u>	<u>\$ 609,799</u>
Change in Assets	<u>\$ (7,098)</u>	<u>\$ (144,884)</u>	<u>\$ (137,788)</u>	<u>\$ 127,083</u>	<u>\$ 134,179</u>
Fixed Assets					
Depreciation	(60,630)	(64,869)	(4,239)	-	60,630
Computer & Software CapEx	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	0
Equipment CapEx	-	-	-	-	0
Leasehold Improvements	-	-	-	-	0
Allocation of Fixed Assets	\$ 53,532	\$ 63,864	10,332	127,083	73,551
Inc(Dec) in Fixed Assets (C)	<u>\$ (7,098)</u>	<u>\$ (1,005)</u>	<u>\$ 6,093</u>	<u>\$ 127,083</u>	<u>\$ 134,181</u>
TOTAL BUDGET (=B + C)	<u>\$ 8,928,994</u>	<u>\$ 9,072,980</u>	<u>\$ 143,987</u>	<u>\$ 9,672,973</u>	<u>\$ 743,980</u>
FTEs	24.00	23.49	(0.51)	23.04	(0.96)

Compliance Enforcement Department

Compliance Enforcement (in whole dollars)			
	2013 Budget	2014 Budget	Increase (Decrease)
Total FTEs	21.00	18.24	(2.76)
Direct Expenses	\$ 3,047,746	\$ 2,920,530	\$ (127,215)
Indirect Expenses	\$ 3,630,417	\$ 3,516,363	\$ (114,054)
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 46,841	\$ 100,607	\$ 53,766
TOTAL BUDGET	\$ 6,725,004	\$ 6,537,500	\$ (187,503)

Background and Scope

Compliance Enforcement department is responsible for overseeing enforcement processes, application of penalties or sanctions and activities to mitigate and prevent recurrence of remediated issues or confirmed violations of ERO standards.

A priority for this department is to ensure noncompliance is timely mitigated while, at the same time, focusing both NERC and Regional Entity enforcement resources on the matters that have the greatest impact on the bulk power system reliability.

NERC's Compliance Enforcement department performs its responsibilities through:

- Monitoring Regional Entities' enforcement processes to ensure due process, to identify best practices and process efficiency opportunities, and to promote consistency among Regional Entities' business practices.
- Collecting and analyzing compliance enforcement and violation data and trends to assist with the identification of emerging risks and to help inform the development of enforcement policy and processes;
- Filing notices of penalty and other submittals associated with violations discovered through Regional Entity compliance, enforcement and monitoring activities;
- Processing and filing notices of penalty and other submittals associated with violations discovered through NERC-led investigations and audits; and
- Docketing possible violations coming into the NERC enforcement program

2014 Goals and Deliverables

Relationship to the Reliability Assurance Initiative (RAI) and expansion of the Find, Fix, Track and Report (FFT) program

As previously stated, RAI was launched to identify and implement changes that enhance the effectiveness of the ERO enterprise's compliance monitoring and enforcement and reduce unnecessary burdens and costs on registered entities. Activities associated with the expansion

of the FFT program are being conducted within the umbrella of the RAI program as priority projects.

Throughout the remainder of 2013 and into 2014, NERC's Enforcement department will continue to focus efforts on ensuring the sustainability and expandability of the FFT process. In addition to ongoing efforts aimed at addressing the consistency in application of CMEP program and documentation requirements, NERC and the Regional Entities will also work to implement the incremental enhancements proposed to FERC in NERC's March 15, 2013 FFT filing upon receipt of the necessary approvals.

NERC and the Regional Entities are also working on identifying opportunities for efficiencies in the processing, through FFT, of minimal risk issues found at audits. This project is being developed under the RAI umbrella, but has its own timelines and milestones and is independent from other aspects of the RAI program. NERC expects that one or more pilots will be conducted beginning in the fourth quarter of 2013 and continuing during 2014 to test additional process improvements.

Also under the RAI umbrella, another priority project is the identification of improvements to the self-report process. This project is considering, among other things, changes to how the information associated with minimal risk issues flows through from the registered entity to the Regional Entity, to NERC. NERC expects to implement pilots to test process improvements beginning in the fourth quarter of 2013 and continuing during 2014.

Finally, the RAI program includes a project designed to develop guidelines for exercise of greater discretion in identifying when noncompliance requires formal enforcement action. The assessment phase of this project is expected to go through the end of 2013 and continue in 2014.

Violation Trend Analysis

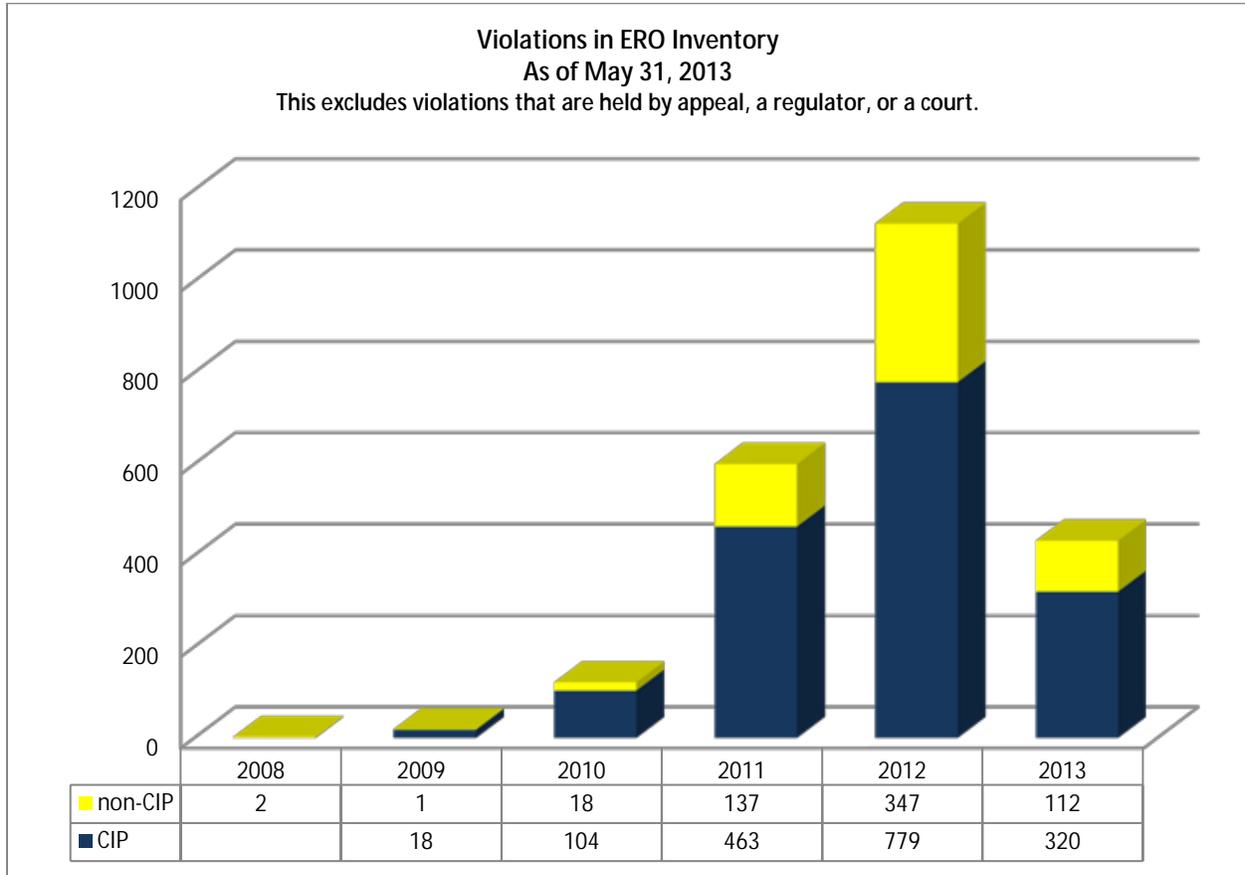
The Enforcement department continues to analyze the violations and processing information to identify trends and emerging risks and to gain insight into the effectiveness of NERC and the Regional Entities' processes and programs. The analysis also informs the development of enforcement policy and processes. In addition, the analysis is used to provide feedback to other departments such as for the development of reliability standards. NERC's Enforcement department works in close collaboration with other NERC departments to leverage analytics as a risk management and resource allocation tool.

Reduction of Outstanding Caseload and Increased Processing Efficiencies

Throughout 2014, NERC's Enforcement department will continue to identify processing efficiencies to further guide enhancements in enforcement activities in order to remain focused on issues that have greater impact on reducing bulk power system reliability risk.

Timely processing of violations will be another area of focus, particularly those that pose greater BPS risk and can provide lessons learned to industry. Early dissemination of violation information to registered entities will enable them to learn from prior events and violations so they may take preventative actions to eliminate similar risks.

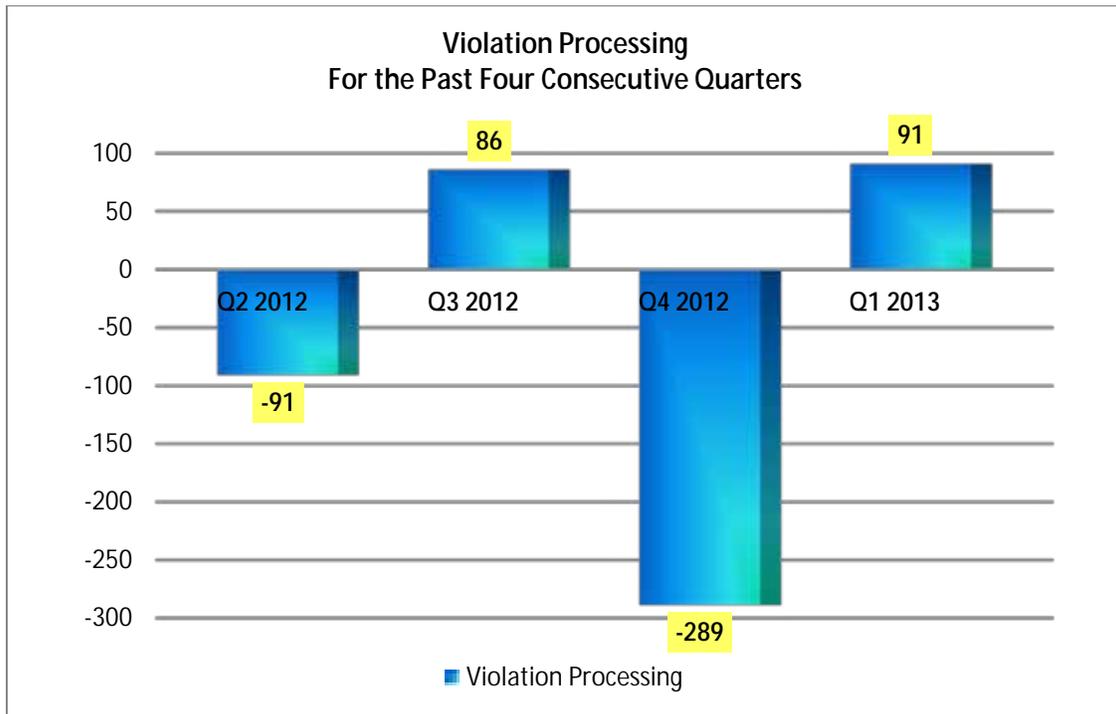
As of May 31, 2013, NERC's Enforcement department has reduced the number of active violations discovered prior January 1, 2012 (those that are not held by appeal, a regulator, or a court) by 46%.



The Enforcement department continues to work with the Regional Entities to significantly reduce this prior caseload by bringing the possible violations to closure and thereby provide information on prior violations to registered entities throughout the remainder of 2013 and in 2014.

The following chart shows the processing rates for the past four consecutive quarters which includes both filed and dismissed violations compared with number of incoming violations that required processing during the given quarter.

Violation Processing Within 12 Months



Resource Requirements

Personnel

No additional Enforcement personnel are being proposed in 2014. The 2.76 reduction in FTEs is due to the assumption of 4% attrition in all departments and due to the transfer of 2.0 FTEs to other departments in 2013.

Contractor Expenses

The budget for outside consulting assistance to conduct an assessment of the software application supporting the department's compliance reporting, analysis and tracking needs has been budgeted under the Compliance Operations department.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2013 Budget & Projection, and 2014 Budget					
COMPLIANCE ENFORCEMENT					
	2013 Budget	2013 Projection	Variance 2013 Projection v 2013 Budget Over(Under)	2014 Budget	Variance 2014 Budget v 2013 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 6,317,083	\$ 6,317,083	\$ (0)	\$ 6,493,392	\$ 176,309
Penalty Sanctions	404,776	404,775		41,322	(363,454)
Total NERC Funding	\$ 6,721,858	\$ 6,721,858	\$ (0)	\$ 6,534,713	\$ (187,146)
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	3,146	2,779	(367)	2,787	(359)
Miscellaneous	-	-	-	-	-
Total Funding (A)	\$ 6,725,004	\$ 6,724,637	\$ (367)	\$ 6,537,500	\$ (187,505)
Expenses					
Personnel Expenses					
Salaries	\$ 2,152,370	\$ 1,951,762	\$ (200,608)	\$ 2,043,427	\$ (108,943)
Payroll Taxes	140,794	125,642	(15,152)	132,855	(7,939)
Benefits	274,883	228,666	(46,217)	339,538	64,655
Retirement Costs	247,200	202,327	(44,873)	234,210	(12,990)
Total Personnel Expenses	\$ 2,815,246	\$ 2,508,397	\$ (306,850)	\$ 2,750,030	\$ (65,217)
Meeting Expenses					
Meetings	\$ 5,000	\$ 5,000	\$ -	\$ 2,500	\$ (2,500)
Travel	186,000	121,900	(64,100)	120,000	(66,000)
Conference Calls	-	2,724	2,724	6,500	6,500
Total Meeting Expenses	\$ 191,000	\$ 129,624	\$ (61,376)	\$ 129,000	\$ (62,000)
Operating Expenses					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	41,000	38,435	(2,565)	41,000	-
Professional Services	-	-	-	-	-
Miscellaneous	500	400	(100)	500	-
Depreciation	-	2,724	2,724	-	-
Total Operating Expenses	\$ 41,500	\$ 41,559	\$ 59	\$ 41,500	\$ -
Total Direct Expenses	\$ 3,047,746	\$ 2,679,579	\$ (368,168)	\$ 2,920,530	\$ (127,217)
Indirect Expenses	\$ 3,630,417	\$ 3,288,545	\$ (341,872)	\$ 3,516,363	\$ (114,054)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 6,678,163	\$ 5,968,124	\$ (710,040)	\$ 6,436,893	\$ (241,271)
Change in Assets	\$ 46,841	\$ 756,512	\$ 709,672	\$ 100,607	\$ 53,766
Fixed Assets					
Depreciation	-	(2,724)	(2,724)	-	-
Computer & Software CapEx	-	2,199	2,199	-	-
Furniture & Fixtures CapEx	-	-	-	-	0
Equipment CapEx	-	-	-	-	0
Leasehold Improvements	-	-	-	-	0
Allocation of Fixed Assets	\$ 46,841	\$ 47,932	1,091	100,607	53,766
Inc(Dec) in Fixed Assets (C)	\$ 46,841	\$ 47,407	\$ 566	\$ 100,607	\$ 53,766
TOTAL BUDGET (=B + C)	\$ 6,725,004	\$ 6,015,531	\$ (709,474)	\$ 6,537,500	\$ (187,505)
FTEs	21.00	17.63	(3.37)	18.24	(2.76)

Reliability Assessment and Performance Analysis

Reliability Assessments and Performance Analysis (in whole dollars)			
	2013 Budget	2014 Budget	Increase (Decrease)
Total FTEs	18.75	18.99	0.24
Direct Expenses	\$ 4,516,620	\$ 5,542,330	\$ 1,025,710
Indirect Expenses	\$ 3,241,444	\$ 3,660,950	\$ 419,506
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 4,372	\$ (123,256)	\$ (127,628)
TOTAL BUDGET	\$ 7,762,436	\$ 9,080,025	\$ 1,317,588

Background and Scope

NERC's Reliability Assessments and Performance Analysis program and department (RAPA) carries out the ERO's statutory responsibility to conduct assessments of the reliability and adequacy of the bulk power system in North America. As described in greater detail below, the activities of the RAPA program also support the identification of reliability performance issues and areas of concern, (including equipment performance and reliability issues) for possible consideration in the development of new mandatory reliability standards, modification of existing standards as part of the Reliability Standards Development Program, or other initiatives that enhance overall reliability.

A comprehensive understanding of the complexity of the changing bulk power system is key to developing effective approaches for achieving reliability. Developing a solid technical foundation, maintaining the insights and inter-dependent understandings are essential in a rapidly changing environment to provide the guidance, insights and actions that sustain bulk power system reliability.

RAPA works to develop the solid technical framework and understanding of the reliability risks facing our industry and to utilize those insights to communicate guidance and information to entities across North America to enhance reliability. RAPA does this through its own engineering and analysis efforts, as well as through marshaling stakeholder resources with subject matter expertise. Further, the activities of the RAPA program also support identification of reliability performance issues and areas of concern, (including equipment performance and reliability issues) for possible consideration in the development of new mandatory reliability standards or modification of existing standards through the Reliability Standards Development Program.

Key Focus Areas

RAPA focuses its efforts in four key areas:

- (1) Reliability Assessment - Reliability assessments provide a technical platform for important policy discussions on challenges facing the interconnected North American bulk power system. Each year, NERC is responsible for independently assessing and reporting on the overall reliability, adequacy, and associated risks that could impact the upcoming summer and winter seasons and the long-term, 10-year period. As emerging risks and potential impacts to reliability are identified, special assessments are conducted that provide similar technical framework and insights about the range, and specific aspects of these to guide steps that may be warranted. Unbiased judgment of the industry's plans for maintaining electric reliability in the future are founded on solid engineering through collaborative and consensus-based assessments.

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.

The key ERO reports include:

- Long-Term Reliability Assessment
- Summer and Winter Reliability Assessments
- Special and Scenario Reliability Assessments

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

- (2) Performance Analysis - The Performance Analysis group identifies and tracks key reliability risk indicators as a means of benchmarking reliability performance and measuring reliability improvements, thereby providing the framework for insights and guidance about emerging trends and associated actions that may be warranted. This includes assessing available event analysis results, incident severity measures, and compliance performance results, developing guidelines for acceptable metrics, and maintaining a performance metrics "dashboard" on the NERC website.

The key trends, findings, and recommendations from risk performance analysis serve as technical input to the ERO's reliability standards and project prioritization, compliance process improvements, event analyses, reliability assessment, and critical infrastructure protection efforts. This analysis of bulk power system performance not only provides an industry reference for historical bulk power system reliability, but also offers analytical insights across the enterprise leading towards industry action, and enables the discovery

and prioritization of specific actionable risk control steps. These analyses and results are summarized in the annual State of Reliability Report, which provides guidance and recommendations that will lead to enhanced bulk system reliability.

- (3) Reliability Risk Analysis and Control - A comprehensive understanding of the complex inter-dependencies and their wide-ranging impacts affecting the reliability of the bulk power system requires deliberate and methodical risk analysis and control strategies. A robust approach that effectively identifies emerging reliability risks and seeks to address them is essential for ensuring NERC's effectiveness and enhancing the reliability of the bulk power system.

The role is to create a reliability strategy that is relevant, timely, and effective at addressing the most important reliability risks, by working with industry leaders to understand key information identified through analysis and assessment efforts; extract and prioritize the associated reliability risks from that information; share and integrate those risk-analysis insights across the ERO enterprise; and translate that knowledge into actionable guidance and recommendations for NERC management, the Board, and industry entities.

This offers stakeholders an open and transparent approach for the development of NERC's reliability strategy, ultimately ensuring the ERO is accountable to industry, regulators, and the public at large.

- (4) Reliability Initiatives and System Analysis - A deep understanding of the technical performance behavior of the North American grid provides a sound technical foundation for identifying those crucial aspects that are important to sustaining overall reliability. This is accomplished by comprehensive evaluation and testing system behavior through forensic analysis during system disturbances and through analytic simulations of that performance. Methodically comparing the actual system behavior to the results of our analytical power-flow and dynamics simulations provides the essential confidence and credibility to guide recommendations and insights that enhance system performance and reliability. These insights establish the framework and foundation for predictive results and insights that lead to effective operating strategies and recommendations that serve to maintain reliability.

A key to formulating the insights is solid, fundamentals-based technical analyses of identified events or conditions, followed by development and implementation of technical solutions as necessary commensurate with the risk to the bulk power system. These system analyses and methodical event analyses lead to comprehensive guidance and reliability initiatives that require effective oversight to implementation in a cohesive and technically sound manner supporting overall grid reliability.

Based on NERC and industry priorities, and to meet business planning goals, a number of issues and initiatives are not being pursued in 2014: probabilistic analysis of reserve margins for NERC's Long-Term Reliability Assessment will be completed every two years rather than annually (none in 2013), the smart grid follow-on work plan will be taken up

beyond 2014, and wind generator availability information (GADS) will be re-programmed to the 2014-2015 timeframe. To further improve effectiveness and efficiency, in 2014 RAPA will further refine the composition of NERC's annual State of Reliability Report, reflecting Post-Seasonal Reliability Review, insights from analysis of transmission, generator and demand response data systems (TADS, GADS and DADS, respectively), and integration of event analysis and mis-operations.

Further, RAPA will continue to leverage its activities with other organizations to amplify results and magnify the effectiveness of its efforts, with for example, the Electric Power Research Institute (EPRI), Institute of Electrical and Electronic Engineers (IEEE), the North American Transmission Forum (NATF), the North American Generation Forum (NAGF), and Canadian Electricity Association (CEA) on a number of fronts, such as GMD, vegetation management, TADS, GADS, and variable generation integration. Continued partnering with the Interstate Natural Gas Association of America (INGAA) and the Natural Gas Supply Associations (NGSA) resulted from the study that addressed interdependency of gas and electric systems.

Bulk Electric System (BES) Implementation

During 2013, the RAPA department has been working closely with the team developing a revised definition of the BES. RAPA has also been working closely with the Regional Entities in the development of a software application to manage the implementation of the BES definition and exception process, by which a registered entity submits self-determined notifications or requests for exception of certain assets and systems from the Bulk Electric System. The associated business processes and guidance supporting the implementation are important elements aligned with the development of the BES tool, utilizing an enterprise PMO approach to ensure effective implementation execution. The BES tool and its functionality for Regions, registered entities, and NERC have been structured to conform to provisions of the Order 773 and 773-A directives and requirements.

2014 Goals and Deliverables

- Issue reliability assessment reports, guidelines, recommendations and alerts as needed.
 - § One 10-year Long-Term Reliability Assessment
 - § Two seasonal assessments: Summer and Winter
 - § Reliability assessment report on geomagnetic disturbance (GMD) bulk electric system effects and vulnerability assessment
 - § One additional special focused assessment addressing key aspects of reliability issues, such as:
 - Variable generation penetration reliability impacts
 - Planning assumptions related to major 1 in 100 year storms
 - Reliability risks associated with diverse and changing resource mix
 - § One Annual State of Reliability Report

- § Oversight of Generating, Transmission and Demand Response Availability Data Systems (GADS, TADS, and DADS), along with reliability metrics, mis-operations and the Spare Equipment Database.
- § Strengthen data collection and validation processes by designing, creating, testing, and implementing data checking systems for reliability assessment, system analysis, and risk analysis.
- § Provide periodic updates on trends and measures of bulk electric system reliability
 - Develop a risk registry and a systematic prioritization process consistent with the Reliability Issues Steering Committee (RISC) framework and to support BPS risk profile measurement and assessment of standards.
 - Develop risk control strategies and plans across the organization to address the highest priority existing or emerging risks to bulk electric system reliability, and explicitly measure the results.
 - Support NERC Reliability Standard development and response to FERC directives by providing technical and system analysis expertise.
 - Support the technical foundation development for reliability standards to address deficiencies or needs revealed by reliability assessments and performance analysis.
 - Provide support and leadership to the Planning Committee, and Standing Committees' subcommittees, working groups, and task forces serving the Standing Committees.
 - Develop structured approach to evaluate and improve system models, model validation, system analysis, and assessments.
 - Assist in the development of approaches to registration and maintenance of the actively monitored list based on reliability trends, risks, and historical information to ensure that the compliance focus remains on the most critical entities and associated reliability standards.
 - Conduct major event investigations, analysis and reporting of major findings and recommendations that will improve reliability.
 - Build and sustain an enterprise reliability assessment and performance analysis team, which encompasses risk-informed approaches and structured methodology to identify and address reliability risks.
 - 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 assessment and analyses.

Resource Requirements

Personnel

The 2014 budget includes the addition of an engineer in RAPA to support risk management initiatives and technical analysis. The 0.24 increase in FTEs reflects the timing of hiring and the assumption of 4% attrition in all departments.

Contractor Expenses

The total projected contractor and consultant expenses for the department are projected at approximately \$553K increase over the 2013 budget, with the major of this increase associated with vegetation and GMD research tied to various regulatory matters. The 2014 contractor and consulting resources are described below and grouped under four categories: (1) Research and Initiative Implementation, Tracking and Reporting, (2) Special and Long-Term Assessments and State of Reliability Analysis (3) licensing and support of existing databases and (4) application development. The specific amount of 2014 contractor and consulting funding is set forth in Exhibit B, which contains a complete listing of 2014 contractor and consulting resources for all NERC departments, together with a comparison to 2013 budgeted amounts.

- (1) Research and Initiative Implementation, Tracking and Reporting — 2014 resource requirements include the resources required in connection with recent regulatory developments regarding vegetation clearances and vegetation management on public lands, as well as the potential impacts of geomagnetic disturbances (“GMD”). Each of these items is described further below.

- a. Vegetation Research

In the recent FERC Order approving the FAC-003 reliability standard for vegetation management, the Commission approval included an obligation to validate the technical foundation supporting the inclusion within the Gallet Equation of factors for the Minimum Vegetation Clearance Distance (MVCD). Significant industry support for the application of the Gallet Equation was a key factor in achieving approval for this standard. Contractor support is required to conduct the necessary research that provides the technical foundation supporting the use of the MVCD in the application of the vegetation management standard. \$350k of this amount is budgeted in 2014 and the remaining \$150k is budgeted in 2015. This research is supported by a draft Statement of Work prepared by Electric Power Research Institute (EPRI) involving approximately a 9-15 month period of effort and associated activity, ultimately leading to a final report, preliminarily targeted for release in 2015.

The research plan is intended to provide empirical technical support for the application of the Gallet equation and the associated factors related to the MVCD. These empirical tests will involve actual flash-over distances between conductors and trees/vegetation grown specifically for this purpose at the EPRI test facility in Lenox, Massachusetts. The research will evaluate such flash distances in a carefully calibrated environment and thereby validate through such data the actual application of the MVCD factors in the currently approved FAC-003 standard.

Subject to the availability of funding in 2013, the proposed schedule involves validating the research plan by the end of the third quarter 2013, beginning the initial work in the fourth quarter, with the bulk of the research effort contained in 2014. The final report is planned for the first half of 2015, and periodic status reports will be provided to interested stakeholders and regulatory authorities.

b. Vegetation Management on Public Lands

In the recent FERC Order approving the FAC-003 reliability standard for vegetation management, the Commission directed NERC to ascertain the issues surrounding access for vegetation and related maintenance for transmission assets crossing public lands. The FERC is concerned that issues arising from federal and state governed lands (e.g. – Bureau of Land Management areas, National/State forests, etc) restrict access to transmission assets crossing such lands and may potentially lead to a reliability risk for outages and/or delayed restoration. Consulting resources will be utilized to develop a plan to gather technically valid information that would identify the nature and extent of such issues on public lands. The research plan as currently envisioned would work through existing industry groups to formulate and validate the information into a report submitted to the FERC advising of the range of issues encountered, and as warranted the potential means to address such issues.

c. Reliability Effects of GMD Vulnerability Assessment

The continuing efforts of the High Impact Low Frequency [HILF] work to expand the technical foundation for understanding the potential impact of GMD will involve continuation of the GMD Task Force work and research through EPRI in 2014. The current 2013 funding level of \$250,000 is expected to be required in 2014, targeting overall completion by the end of the year. The current work centers around providing a suite of technically valid tools and operational measures and transformer modeling, along with coordinating work efforts at the National Oceanic and Atmospheric Administration and space weather entities to understand the potential ranges of geomagnetically induced currents from coronal mass ejections on the sun. The results will permit individual entities to conduct associated vulnerability assessments. Once the EPRI and industry efforts are completed, the Task Force can then finalize the tool development and associated baseline information. The objective for 2014 is to complete associated research efforts and conduct an overall assessment of the vulnerability assembled in a report that provides an indication of the how these factors potentially affect reliability of the bulk power system in North America.

(2) Special and Long Term Assessments and State of Reliability Analysis

a. Scenario Consultant – Addressing Standing and Emerging Issues

NERC will continue to develop ad-hoc special and/or scenario assessments which are developed through the RISC and Board initiatives and which are informed by the emerging issues process currently established in the LTRA.⁷ Scenario assessments provide detailed quantitative and qualitative analyses which “stress” the reference

⁷ **Special Assessments** are ad-hoc assessments focused on specific industry issues (emerging or standing). For these assessments, detailed quantitative and qualitative analysis, beyond what is included in the annual long-term and seasonal reliability assessments, is examined. These reports are generally published separately from the annual long-term and seasonal reliability assessments.

Scenario Assessments are ad-hoc assessments focused on specific, hypothetical industry conditions. For these assessments, detailed quantitative and qualitative analysis is performed which “stress” the Reference Case. Scenario assessments will be included as part of the annual long-term and seasonal reliability assessments to provide a sensitivity of potential outcomes.

planning case of the North American bulk power system. Scenario analysis can indicate the relative sensitivity of the *Reference Case* to changes in pre-specified conditions and may provide some insight into risks to Regional reliability. Based on input from RISC, as well as insights from assessments and analyses, and industry, a deeper understanding is desired of the potential reliability implications from a focused spectrum of sensitivities to measure the robustness of the *Reference Case* and to study potential impacts on reliability. Further, these scenario assessments may be prompted by input from policy and legislative initiatives that NERC would undertake to provide the solid technical framework and foundation for policy decisions and guidance.

(3) Licensing and support of existing databases

The 2014 RAPA contractor and consulting budget also includes the costs to license and maintain the certain metrics collection, analysis and display tools, as well as the generator availability data system, transmission availability data system, demand side management assessment database and spare equipment database.

a. Metrics Data Collection, Analysis and Display Tools – Enhancements and Maintenance

This application collect, records, and retrieves reliability metric information that quantifies characteristics of adequate level of reliability. The metric trends and performance analysis serve as technical input to Reliability Standards and project prioritization, compliance process improvement, event analysis, reliability assessment, and critical infrastructure protection. The “dashboard” displays dynamic performance trends and risk-based index curves on NERC public website. Viewers can interact with the charts, as well as search specific supporting information through multilevel drilldown features with simple and direct access.

b. GADS/TADS/DADS/SED

§ Generation Availability Data System (GADS) – Enhancements and Maintenance

This tool collects, records, and retrieves operating information on power plant availability, including event, performance, and design data. The information is used to support equipment reliability and availability analyses, as well as risk-informed decision making, including the reliability and adequacy of the bulk power system and the potential need for development of new or modified reliability standards

§ Transmission Availability Data System (TADS) – Enhancements and Maintenance

This tool collects, records, and retrieves information used to measure transmission availability and performance. This data is important to assessing the reliability and adequacy of the bulk power system and can also provide information indicating trends and insights of the need for development of reliability standards or other risk control strategies. The data reporting tool collects information about the transmission lines and transformers operating above 200KV, including outage details and cause codes

§ Demand Response Availability Data System (DADS) – Enhancements and Maintenance

This tool collects demand response enrollment and event information to measure its performance including its contribution to improved reliability, providing industry with a consistent basis for projecting contributions of dispatchable and non-dispatchable demand response supporting resource projections and operational reliability. Further, this data is important to assessing the reliability and adequacy of the bulk power system and can provide information indicating the need for development of new or modified reliability standards.

§ Spare Equipment Database (SED) – Enhancements and Maintenance

This tool collects and tracks spare long-lead time transformer information used to strengthen industry resiliency in order to withstand a significant event that damages large amounts of long lead time equipment. The database provides industry a vital tool of communication and coordination for tracking spare equipment. This ability will be extremely helpful in the aftermath of a HILF event, such as coordinated attack or extreme weather.

(4) Software application development

a. Replacement for pc-GAR

pc-GAR is a legacy software application that was developed by NERC many years ago to provide industry and vendor restricted access to limited GADS information for benchmarking and other reliability improvement initiatives. It was developed during a time when the provision of generator data was voluntary and in exchange for providing this data companies received a restricted license for access to certain summary data from the system. Some generator major equipment vendors have also requested and been granted restricted licenses for access to this data in order to benchmark and improve their equipment. Nominal license fees were charged to help defray a portion of the costs of operating, maintaining and administering this complex legacy software. In connection with its 2013 business plan and budget where NERC expressed the intent to discontinue the licensing of this software and data availability, NERC received comments from industry expressing a strong desire for NERC to continue providing this access in order for generator owners and vendors to continue to undertake the reliability assessment and improvement activities generally described above. NERC management considered transferring the licensing of the software to a third party but felt that it was important to retain control of the licensing in order to ensure the protection of confidential information. The proposed funding included in the 2014 business plan and budget is to provide resources to develop a replacement software application, as well as develop a license structure to recover NERC's cost of operating and maintaining the replacement software.

b. Reliability Assessment Data System (RADS)

NERC's seasonal and long-term reliability assessments provide an independent view of the reliability for the North American bulk power system, while identifying trends, emerging issues, and potential concerns. Assessments also provide seasonal resource adequacy and operating reliability, as well as an overview of projected

electricity demand growth. The Regional Entities provide data and other information requested by NERC in support of the preparation of the annual long-term and seasonal assessments. The data from these efforts is then used to coordinate forecast reliability data between planning areas, the eight Regional Entities, and governmental organizations. NERC is bound by a Memorandum of Understanding with the Energy Information Administration to submit this data on behalf of the industry in an effort to eliminate duplicative reporting.

Currently, NERC has been collecting reliability assessment information from the Regional Entities using up to 27 Microsoft Excel spreadsheets. The purpose of the RADS applications is to facilitate the collection of regional demand, capacity and transmission data to quantify and analyze the reliability of the bulk power system in a standard, consistent, transparent method. RADS will substantially improve the accuracy and completeness of this data, while enabling it to be leveraged by all users of NERC data – including registered entities.⁸ More importantly, RADS will benefit registered entities by creating a more efficient data collection process for those that submit data to NERC. Increased efficiency and accuracy, driven by the validation features of the system, will allow for extension of existing deadlines, which will allow registered entities additional time to provide data to their respective Regional Entity.

While Phase I of the project is intended to facilitate this data collection effort at the Assessment Area level,⁹ future phases of the project are intended to capture data from registered entities in one location. Currently, registered entities must submit data to the Regional Entities in a variety of different formats. The Regional Entities must then provide data to NERC through a different mechanism. The end-state of RADS incorporates a fully integrated model that utilizes a common system for the entire ERO.

RADS is also envisioned to provide enhanced analytics that facilitate cross-system intelligence. For example, data provided within the GADS and TADS information systems can be used to fulfill some of the data requirements needed for assessments. Additionally, because of the forward-looking nature of the data provided within RADS, the projections can be used to provide information applicable to registration. These are only some of the examples of how RADS can provide risk-informed information to support other functions of the ERO.

The selection of a vendor and commencement of the development of RADS will be subject to the successful completion of the development of the BES and Alerts applications. Management is also planning to finance the development of the RADS application. Further details regarding the estimated cost of development are included

⁸ The use of NERC reliability assessment data across the industry is extensive. The Electricity Supply and Demand Database (ES&D)—which is a product of the reliability assessment process—is downloaded over 300 times each year by various organizations, including Registered Entities, governmental organizations, government labs, academic institutions, and other researchers.

⁹ Assessment Areas are defined as the Registered Planning Coordinator Entities or groups of Registered Planning Coordinator Entities

under the IT department. Further details regarding the Enterprise IT financing program is included in Exhibit D.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2013 Budget & Projection, and 2014 Budget					
RELIABILITY ASSESSMENTS and PERFORMANCE ANALYSIS					
	2013 Budget	2013 Projection	Variance 2013 Projection v 2013 Budget Over(Under)	2014 Budget	Variance 2014 Budget v 2013 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 7,358,220	\$ 7,358,220	\$ -	\$ 8,944,102	\$ 1,585,882
Penalty Sanctions	361,407	361,407	-	43,021	(318,386)
Total NERC Funding	<u>\$ 7,719,627</u>	<u>\$ 7,719,627</u>	<u>\$ -</u>	<u>\$ 8,987,123</u>	<u>\$ 1,267,496</u>
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	29,000	29,000	50,000	50,000
Workshops	40,000	40,000	-	40,000	-
Interest	2,809	2,779	(30)	2,902	93
Miscellaneous	-	-	-	-	-
Total Funding (A)	<u>\$ 7,762,436</u>	<u>\$ 7,791,406</u>	<u>\$ 28,970</u>	<u>\$ 9,080,025</u>	<u>\$ 1,317,589</u>
Expenses					
Personnel Expenses					
Salaries	\$ 2,429,590	\$ 2,395,599	\$ (33,991)	\$ 2,604,058	\$ 174,468
Payroll Taxes	150,215	144,329	(5,886)	159,156	8,941
Benefits	262,762	241,129	(21,633)	344,217	81,455
Retirement Costs	269,736	226,048	(43,688)	294,179	24,443
Total Personnel Expenses	<u>\$ 3,112,303</u>	<u>\$ 3,007,105</u>	<u>\$ (105,198)</u>	<u>\$ 3,401,610</u>	<u>\$ 289,307</u>
Meeting Expenses					
Meetings	\$ 78,000	\$ 58,026	\$ (19,974)	\$ 90,000	\$ 12,000
Travel	410,000	410,000	-	410,000	-
Conference Calls	31,950	31,950	-	35,000	3,050
Total Meeting Expenses	<u>\$ 519,950</u>	<u>\$ 499,976</u>	<u>\$ (19,974)</u>	<u>\$ 535,000</u>	<u>\$ 15,050</u>
Operating Expenses					
Consultants & Contracts	\$ 685,000	\$ 729,481	\$ 44,481	\$ 1,238,085	\$ 553,085
Office Rent	-	-	-	-	-
Office Costs	161,416	135,909	(25,507)	139,135	(22,281)
Professional Services	-	-	-	-	-
Miscellaneous	500	500	-	500	-
Depreciation	37,450	165,086	127,636	228,000	190,550
Total Operating Expenses	<u>\$ 884,366</u>	<u>\$ 1,030,975</u>	<u>\$ 146,609</u>	<u>\$ 1,605,720</u>	<u>\$ 721,354</u>
Total Direct Expenses	<u>\$ 4,516,620</u>	<u>\$ 4,538,056</u>	<u>\$ 21,437</u>	<u>\$ 5,542,330</u>	<u>\$ 1,025,711</u>
Indirect Expenses	<u>\$ 3,241,444</u>	<u>\$ 3,288,545</u>	<u>\$ 47,101</u>	<u>\$ 3,660,950</u>	<u>\$ 419,506</u>
Other Non-Operating Expenses	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Total Expenses (B)	<u>\$ 7,758,064</u>	<u>\$ 7,826,601</u>	<u>\$ 68,538</u>	<u>\$ 9,203,280</u>	<u>\$ 1,445,217</u>
Change in Assets	<u>\$ 4,372</u>	<u>\$ (35,195)</u>	<u>\$ (39,568)</u>	<u>\$ (123,256)</u>	<u>\$ (127,629)</u>
Fixed Assets					
Depreciation	(37,450)	(165,086)	(127,636)	(228,000)	(190,550)
Computer & Software CapEx	-	717,190	717,190	-	-
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	\$ 41,822	\$ 47,932	\$ 6,110	104,744	\$ 62,922
Inc(Dec) in Fixed Assets (C)	<u>\$ 4,372</u>	<u>\$ 600,037</u>	<u>\$ 595,665</u>	<u>\$ (123,256)</u>	<u>\$ (127,628)</u>
TOTAL BUDGET (=B + C)	<u>\$ 7,762,436</u>	<u>\$ 8,426,637</u>	<u>\$ 664,202</u>	<u>\$ 9,080,025</u>	<u>\$ 1,317,590</u>
FTEs	18.75	17.63	(1.12)	18.99	0.24

Reliability Risk Management

NERC's Reliability Risk Management group carries out the ERO's statutory responsibility to perform assessments (including real-time or near-real-time assessments) of the reliability and adequacy of the bulk power system, including identifying potential issues of concern relating to system, equipment, entity and human performance that may indicate the possible need to develop new or modified reliability standards. The Reliability Risk Management group includes four primary functions and two departments: the Situation Awareness Department and the Event Analysis Department. The four primary functions include: (1) bulk power system awareness; (2) event analysis and determination of root and contributing causes; (3) assessment of human performance challenges affecting bulk power system reliability and identification of improvement opportunities; and (4) support of the NERC operating committee. The functions and resources of this group are directly focused on proactive awareness of bulk power system conditions and all events over a threshold of impact, analyzing events and addressing the most significant risks to bulk power reliability and ensuring that industry is well informed of system events, emerging trends, risk analysis, lessons learned and actions. These functions may also identify areas in which new or enhanced compliance monitoring and enforcement initiatives, pursuant to the ERO's statutory responsibility to monitor, enforce and achieve compliance with mandatory reliability standards, are warranted.

Situation Awareness Department

Situation Awareness (in whole dollars)			
	2013 Budget	2014 Budget	Increase (Decrease)
Total FTEs	6.50	6.24	(0.26)
Direct Expenses	\$ 4,193,507	\$ 3,009,571	\$ (1,183,937)
Indirect Expenses	\$ 1,123,701	\$ 1,202,966	\$ 79,265
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	7,103	518,911	511,808
TOTAL BUDGET	\$ 5,324,311	\$ 4,731,448	\$ (592,863)

Background and Scope

The Situation Awareness department works with registered entities to monitor present conditions on the high voltage transmission lines, associated substations and large generators using various software tools and applications. NERC communicates and coordinates with Regional and registered entities to notify them of various types of disturbances (hurricanes, tornados, earthquakes, solar flares from the sun, etc.) that could negatively impact their ability to deliver power to homes and businesses. Additionally, when significant bulk power system disturbances occur, NERC facilitates the coordination of communications between registered entities and applicable governmental authorities.

In 2013, the Interchange Distribution Calculator and several related reliability tools that had been funded and managed by NERC were successfully transitioned to industry sponsorship.

Based on the successful commercialization, deployment and transition to private sector support of synchrophasor technology, NERC will also be ending its direct funding and sponsorship of the North American Synchrophasor Initiative at the end of 2013. As a result of these two successful transitions, together with the transition from development to operation and maintenance of the SAFNR software application used for situation awareness monitoring, NERC's budget and funding requirements to support Situation Awareness will be reduced by over \$1.2M in 2014 compared to 2013.

The 2014 Situation Awareness budget will continue to include funding for the ongoing maintenance and support of several tools used to support ERO operations. The following is a further description of these tools. The specific 2014 budget for each of these tools is set forth in Exhibit C, together with a comparison to 2013 budgeted amounts.

- **Automated Reliability Reports** – This tool produces daily and monthly summaries of historical load-generation resource adequacy and control performance for the three interconnections. This tool is used to monitor frequency response and perform trending analysis. This program relies on data supplied to the Resource Adequacy Tool. The funding included in the 2014 budget is based on 2013 actual expenditures which were not budgeted as a separate line item in 2013.
- **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 critical inadequacies conditions such as major tie error, inaccurate load forecast 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.
- **AIE 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.
- **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 FNet¹⁰ 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.
- **Secure Alerts System** – This software application provides notification to industry of critical or impending reliability and security threats to assist industry in taking

¹⁰ FNet – Operated by the [Power Information Technology Laboratory](#) at the [University of Tennessee](#), FNET is a low-cost, quickly deployable GPS-synchronized wide-area frequency measurement network. High dynamic accuracy Frequency Disturbance Recorders (FDRs) are used to measure the frequency, phase angle, and voltage of the power system at ordinary 120 V outlets. The measurement data are continuously transmitted via the Internet to the FNET servers hosted at the University of Tennessee and [Virginia Tech](#).

preemptive or precautionary measures. The existing alerts tool is cumbersome to use, is not integrated with other NERC reliability information systems and has a number of other limitations which reduce its usefulness as a tool to rapidly disseminate important reliability information to industry. In 2013 NERC issued a request for proposals and selected a vendor to develop a replacement software application. The 2014 contractor and consulting budget includes the projected costs to complete the development of, as well as the projected annual maintenance costs for, this replacement software application.

- **NERCnet (Frame Relay Contract)** – The Interconnection Security Network (ISN), aka NERCnet was established to facilitate the exchange of power system operational data between reliability coordinators, transmission operators, and balancing authorities for the purpose of power system security analysis. This network is a collection of nodes which communicate over the ISN using the control Center Communication Protocol to exchange data related to realtime power system related data operations. NERC has initiated a project in 2013 to conduct an orderly transition of the NERCnet network to a telecommunications management and service provider, who will assume operational responsibility for the network, including invoicing and support, at which time NERC will become a user of the service but no longer have operational responsibility for the network. NERC budgeted an estimated \$400k in cost for its use of the replacement network in 2014, which represents an increase of \$100k over the 2013 budget.

2014 Goals and Deliverables

The department will continue to work with the Regional Entities in obtaining and reviewing information from registered entities regarding qualifying events and disturbances, as outlined in the ERO Events Analysis Process. These reports are reviewed to verify the accuracy of information, as well as to ensure they include the information necessary for categorizing and cause coding of events.

The department's 2014 goals and deliverables include:

- Ensure that the ERO is aware of all BPS events above a threshold of impact
- Ensure the sharing of information and data to facilitate wide area situational awareness
- Reduce the need for NERC situation awareness staff engagement with RCs and Regional Entities when events occur or when reliability threats are identified
- During crisis situations, facilitating the exchange of information among industry, regions, and government
- Keeping the industry informed of emerging reliability threats and risks to the BPS, including any expected actions
- Enhanced tracking of notification of expected actions in response emerging actions to promote great industry accountability
- Issuing timely updates regarding progress towards resolving issues identified in Recommendations and Essential Actions

Resource Requirements

Personnel

No additional personnel are projected for the Situation Awareness Department in 2014. The reduction of 0.26 FTEs is due to the assumption of 4% attrition in all departments.

Contractor Expenses

The overall funding of approximately \$1,390,000 for contractors and consultants to support the Situation Awareness department in 2014 is approximately \$1,350,000 below 2013 budget levels. The detailed 2014 contractor and consulting budget for the Situation Awareness department is set forth in Exhibit C, together with a comparison to 2013 budgeted amounts.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2013 Budget & Projection, and 2014 Budget					
SITUATION AWARENESS					
	2013 Budget	2013 Projection	Variance 2013 Projection v 2013 Budget Over(Under)	2014 Budget	Variance 2014 Budget v 2013 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 5,093,049	\$ 6,974,096	\$ 1,881,047	\$ 4,641,358	\$ (451,691)
Penalty Sanctions	125,288	125,288	0	14,136	(111,152)
Total NERC Funding	\$ 5,218,337	\$ 7,099,384	\$ 1,881,047	\$ 4,655,494	\$ (562,843)
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	1,909	1,909	-	-
Workshops	105,000	105,000	-	75,000	(30,000)
Interest	974	3,902	2,928	953	(21)
Miscellaneous	-	-	-	-	-
Total Funding (A)	\$ 5,324,311	\$ 7,210,195	\$ 1,885,884	\$ 4,731,448	\$ (592,863)
Expenses					
Personnel Expenses					
Salaries	\$ 856,927	\$ 734,896	\$ (122,031)	\$ 915,216	\$ 58,289
Payroll Taxes	56,925	49,874	(7,051)	60,207	3,282
Benefits	87,659	84,600	(3,059)	125,093	37,434
Retirement Costs	98,496	53,776	(44,720)	104,293	5,797
Total Personnel Expenses	\$ 1,100,007	\$ 923,146	\$ (176,861)	\$ 1,204,809	\$ 104,802
Meeting Expenses					
Meetings	\$ 198,000	\$ 170,000	\$ (28,000)	\$ 171,000	\$ (27,000)
Travel	72,500	28,020	(44,480)	30,000	(42,500)
Conference Calls	24,175	5,000	(19,175)	5,000	(19,175)
Total Meeting Expenses	\$ 294,675	\$ 203,020	\$ (91,655)	\$ 206,000	\$ (88,675)
Operating Expenses					
Consultants & Contracts	\$ 2,743,180	\$ 2,892,685	\$ 149,505	\$ 1,389,014	\$ (1,354,166)
Office Rent	-	-	-	-	-
Office Costs	47,750	44,795	(2,955)	47,750	-
Professional Services	-	-	-	-	-
Miscellaneous	500	500	-	500	-
Depreciation	7,395	4,465	(2,930)	161,498	154,103
Total Operating Expenses	\$ 2,798,825	\$ 2,942,446	\$ 143,621	\$ 1,598,762	\$ (1,200,064)
Total Direct Expenses	\$ 4,193,507	\$ 4,068,612	\$ (124,895)	\$ 3,009,571	\$ (1,183,937)
Indirect Expenses	\$ 1,123,701	\$ 1,014,730	\$ (108,971)	\$ 1,202,966	\$ 79,265
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 5,317,208	\$ 5,083,341	\$ (233,867)	\$ 4,212,537	\$ (1,104,671)
Change in Assets	\$ 7,103	\$ 2,126,854	\$ 2,119,751	\$ 518,911	\$ 511,808
Fixed Assets					
Depreciation	(7,395)	(4,465)	2,930	(161,498)	(154,103)
Computer & Software CapEx	-	-	-	645,990	645,990
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	\$ 14,498	\$ 14,790	292	34,418	19,920
Inc(Dec) in Fixed Assets (C)	\$ 7,103	\$ 10,325	\$ 3,222	\$ 518,911	\$ 511,808
TOTAL BUDGET (=B + C)	\$ 5,324,311	\$ 5,093,666	\$ (230,645)	\$ 4,731,448	\$ (592,863)
FTEs	6.50	5.44	(1.06)	6.24	(0.26)

Event Analysis Department

Event Analysis (in whole dollars)			
	2013 Budget	2014 Budget	Increase (Decrease)
Total FTEs	9.50	9.60	0.10
Direct Expenses	\$ 2,074,908	\$ 2,477,486	\$ 402,579
Indirect Expenses	\$ 1,642,332	\$ 1,850,717	\$ 208,385
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 21,190	\$ (140,715)	\$ (161,905)
TOTAL BUDGET	\$ 3,738,430	\$ 4,187,488	\$ 449,058

Background and Scope

The Event Analysis Department is critical to supporting the ERO's reliability goals through its work to evaluate bulk power system events, undertaking appropriate levels of analysis to determine the causes of the events, promptly assuring tracking of corrective actions to prevent recurrence, and providing lessons learned to the industry. This department is responsible for managing all NERC activities with respect to event analysis, assuring consistent, timely, and coordinated results. The group ensures: reporting and analysis are consistent to allow wide area assessment of trends and risks, all reportable events are analyzed for sequence of events, root cause, risk to reliability and mitigation, and the industry is well informed of system events, emerging trends, risk analysis, lessons learned and expected actions. The event investigation group is responsible for reviewing formal complaints and conducting non-public compliance investigations, as well as assisting in the review of registered entity compliance assessments to verify compliance gaps are assessed in all reportable events. The event investigation group supports NERC's statutory responsibility of reliability standards development and assessing the reliability and adequacy of the bulk power system, as well as monitoring and enforcing compliance with mandatory reliability standards.¹¹

Resources within this group also focus on identifying human error risks and those precursory factors that allow human error to impact system reliability and educating industry regarding those risks and precursors and mitigation methods. These resources also support compliance and standards training initiatives, as well as trending and analysis to identify emerging reliability risks to the bulk power system and therefore support NERC's performance of its statutory responsibilities to develop standards for the reliable operation of the bulk power system, monitor and enforce compliance with mandatory reliability standards, and assess the reliability and adequacy of the bulk power system. These efforts are conducted in collaboration with industry human performance projects, including the Western Electricity Coordinating Council's (WECC's) Human Performance Working Group, the North American Transmission Forum's (NATF's) Human Performance Group and the Electric Power Research Institute.

¹¹ See NERC Rules of Procedure sections 807-808 and Appendix 8, as well as Section 400 and Appendix 4C.

Development of Events Information Data System

The Events Analysis and RAPA departments are currently working closely with the Regional Entities to develop a new software application called the Events Information Data System (EIDS). The purpose of EIDS is to create an ERO-wide, robust tool to collect, analyze, and report detailed information regarding events which impact the reliability of the bulk power system in North America. The EIDS tool will provide registered entities a single entry point for data to meet several requirements, reducing redundant processes, reporting and data reconciliation. The EIDS tool will also create a platform by which registered entity users can submit and track event reports in one unified place and receive status and feedback updates directly from the ERO. Further, to support the ERO in performance assessment and risk cluster identifications, it is vital that this tool connects with other ERO reliability data sources (e.g., Transmission Availability Data System (TADS), Generating Availability Data System (GADS), and reliability metrics) for determining accurate and complete risk trends and improving consistency and efficiency of data checking and validation. Future enhancements among these applications will encompass connectivity with other data sources e.g., TADS, GADS, and metrics development. This platform will also provide a venue for the active sharing of these reliability trends. Funding for the initial development of the EIDS application was included in the 2013 budget. The 2014 budget includes funding for consultants to assist in the integration of TADS and GADS with EIDS. The insights and analyses that emerge from the application of the EIDS system, in particular once integrated and aligned with the other NERC data-base systems such as TADS and GADS, should provide a foundation for gaining a better understanding of the risk-informed trends, recommendations and guidance necessary to align reliability objectives and priorities as contemplated by the Reliability Issues Steering Committee. Management anticipates it will finance, rather than expense currently, the development of the EIDS application. See Exhibit D for a further discussion of the Enterprise IT financing program and projected amortization schedule.

2014 Goals and Deliverables

- Work with the Regional Entities to obtain and review information from registered entities regarding qualifying events and disturbances in order to advance awareness of events above a threshold level, facilitate analysis of root causes, risks to reliability, wide areas assessments, mitigation, and timely dissemination of information regarding events
- Ensure that all reportable events are analyzed for sequence of events, root cause, risk to reliability, and mitigation
- Refine risk-based methodologies to support more effective and efficient 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
- Issue 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 investigations, analysis and reporting of major findings and recommendations that will improve reliability
- Advance the quality and usefulness of reliability assessments and event analysis data

Resource Requirements

Personnel

No additional personnel are planned to be added to the Event Analysis department in 2014. The 0.10 additional FTE is due to the transfer of 0.5 FTEs from another department in 2013, offset by the assumption of 4% attrition in all departments.

Contractor Expenses

Consulting and contractor budget for this department includes funds to retain subject matter experts to assist in the event analysis, as well as consultants to assist in the integration of EIDS with TADS and DADS. The specific 2014 budget for each of these items is set forth in Exhibit C, together with a comparison to 2013 budgeted amounts. A portion of the IT capital budget for servers and other equipment are expected to be financed as part of the capital project financing program discussed in Exhibit D.

**Statement of Activities, Fixed Assets Expenditures and Change in Working Capital
2013 Budget & Projection, and 2014 Budget**

EVENT ANALYSIS

	2013		Variance	2014	
	Budget	Projection	2013 Projection v 2013 Budget Over(Under)	Budget	Variance 2014 Budget v 2013 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 3,501,894	\$ 3,501,893	\$ (1)	\$ 4,114,272	\$ 612,378
Penalty Sanctions	183,113	183,113		21,748	(161,365)
Total NERC Funding	\$ 3,685,006	\$ 3,685,006	\$ (1)	\$ 4,136,021	\$ 451,014
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	52,000	52,000	-	50,000	(2,000)
Interest	1,423	1,491	68	1,467	44
Miscellaneous	-	-	-	-	-
Total Funding (A)	\$ 3,738,430	\$ 3,738,497	\$ 67	\$ 4,187,488	\$ 449,058
Expenses					
Personnel Expenses					
Salaries	\$ 1,340,677	\$ 1,375,135	\$ 34,458	\$ 1,470,290	\$ 129,613
Payroll Taxes	82,107	84,717	2,610	91,480	9,373
Benefits	125,335	129,266	3,931	178,744	53,409
Retirement Costs	153,189	142,095	(11,094)	167,286	14,097
Total Personnel Expenses	\$ 1,701,309	\$ 1,731,213	\$ 29,905	\$ 1,907,800	\$ 206,492
Meeting Expenses					
Meetings	\$ 62,000	\$ 62,000	\$ -	\$ 67,000	\$ 5,000
Travel	155,000	179,920	24,920	175,000	20,000
Conference Calls	-	29,444	29,444	20,000	20,000
Total Meeting Expenses	\$ 217,000	\$ 271,364	\$ 54,364	\$ 262,000	\$ 45,000
Operating Expenses					
Consultants & Contracts	\$ 120,000	\$ 70,000	\$ (50,000)	\$ 75,000	\$ (45,000)
Office Rent	-	-	-	-	-
Office Costs	36,100	36,092	(8)	38,519	2,419
Professional Services	-	-	-	-	-
Miscellaneous	500	800	300	500	-
Depreciation	-	704	704	193,667	193,667
Total Operating Expenses	\$ 156,600	\$ 107,597	\$ (49,003)	\$ 307,686	\$ 151,086
Total Direct Expenses	\$ 2,074,908	\$ 2,110,174	\$ 35,266	\$ 2,477,486	\$ 402,578
Indirect Expenses	\$ 1,642,332	\$ 1,764,585	\$ 122,253	\$ 1,850,717	\$ 208,385
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 3,717,240	\$ 3,874,759	\$ 157,519	\$ 4,328,203	\$ 610,963
Change in Assets	\$ 21,190	\$ (136,262)	\$ (157,452)	\$ (140,715)	\$ (161,905)
Fixed Assets					
Depreciation	-	(704)	(704)	(193,667)	(193,667)
Computer & Software CapEx	-	581,000	581,000	-	-
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	\$ 21,190	\$ 25,720	4,530	52,951	31,761
Inc(Dec) in Fixed Assets (C)	\$ 21,190	\$ 606,015	\$ 584,825	\$ (140,715)	\$ (161,905)
TOTAL BUDGET (=B + C)	\$ 3,738,430	\$ 4,480,774	\$ 742,344	\$ 4,187,488	\$ 449,058
FTEs	9.50	9.46	(0.04)	9.60	0.10

Critical Infrastructure Protection

Critical Infrastructure Department (in whole dollars)			
	2013 Budget	2014 Budget	Increase (Decrease)
Total FTEs	12.50	12.48	(0.02)
Direct Expenses	\$ 3,110,661	\$ 3,315,465	\$ 204,804
Indirect Expenses	\$ 2,145,903	\$ 2,360,591	\$ 214,688
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 42,937	\$ 114,176	\$ 71,239
TOTAL BUDGET	\$ 5,299,501	\$ 5,790,232	\$ 490,731

Background and Scope

NERC's Critical Infrastructure Protection resources support the development and administration of critical infrastructure standards, CMEP oversight, and critical infrastructure and cyber information sharing, incident analysis, risk assessment, and coordination between industry and governmental entities. These resources also provide staff level support for several industry-led activities and organizations¹², including the:

- Critical Infrastructure Protection Committee, an industry-led committee comprised of industry experts in the areas of cyber security, physical security, and operational security; and
- Electricity Sub-sector Coordinating Council (ESCC), which works closely with the federal government to identify and discuss critical infrastructure protection concepts, processes and resources, as well as facilitate information sharing regarding cyber vulnerabilities and threats.

2014 Goals and Deliverables

2014 goals and deliverables include:

- Supporting CIP standards development and implementation through outreach presentations, webinars, and other training opportunities;
- Supporting the compliance and enforcement process improvement initiatives (e.g., RAI), including but not limited to improvements in audit consistency, risk-based audit approaches and auditor training.
- Through the operation of the ES-ISAC, providing rapid dissemination of cyber threat, vulnerability information and mitigation strategies to industry, including the dissemination of information derived from classified sources.

¹² Critical Infrastructure Protection Resources also participate in other industry-led groups, such as the Cross-Sector Cyber Security Working Group, the Industrial Control Systems Joint Working Group, and the Partnership for Infrastructure Security.

- Conducting security incident analysis and work with industry experts to evaluate, track, and identify lessons learned and security metrics that enhance the sector’s security posture,
- Conducting Cyber Risk Preparedness Assessments (CRPA) and sufficiency reviews and develop CRPA tools for industry to conduct self assessments,.
- Contributing technical expertise to establishment of a NERC enterprise-wide cause coding effort designed to inform sector risk-based analytics.

ESCC Support

The ESCC was established to provide the federal government with a forum for coordinating with the electricity sector on critical infrastructure protection matters. Since May 2010, the ESCC has been composed of executive level members who broadly represent industry stakeholders to provide strategic and policy-level guidance on critical infrastructure security and reliability resilience. NERC supports the ESCC by providing executive involvement, expert input and advice, coordination with stakeholders, and secretariat support. The vast majority of this support is provided utilizing internal resources. Outside contractor support has historically been utilized to supplement internal resources. \$190k has been budgeted in 2014 for this external consulting support, which is an increase of \$60k over the 2013 budget.

Resource Requirements

Personnel

No additional personnel are planned to be added to the Critical Infrastructure department in 2014. The 0.02 reduction in FTEs is the assumption of 4% attrition in all departments. S-ISAC personnel additions are discussed in the next section.

Contractors- an increase of \$30k for ESSC support as discussed above.

Electricity Sector Information Sharing and Analysis Center (ES-ISAC)

ES-ISAC (in whole dollars)			
	2013 Budget	2014 Budget	Increase (Decrease)
Total FTEs	6.75	8.22	1.47
Direct Expenses	\$ 1,978,746	\$ 2,646,858	\$ 668,112
Indirect Expenses	\$ 1,181,979	\$ 1,630,018	\$ 448,039
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ -	\$ -	\$ -
TOTAL BUDGET	\$ 3,160,725	\$ 4,276,876	\$ 1,116,151

The Electricity Sector Information Sharing and Analysis Center (ES-ISAC) was formed in 1998 when the US Secretary of Energy requested that NERC serve as the ISAC¹³ for the electricity

¹³ 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.

sub-sector.¹⁴ The primary function of the ES-ISAC is the rapid and secure sharing of information with the electric industry and governmental entities regarding real and potential cyber related threats to the electricity sector, as well as methods and tools to avoid or mitigate the potential impact from these threats.

The ES-ISAC gathers information from the disparate electricity industry participants about security-related events, disturbances, and off-normal occurrences within the electricity sub-sector and shares that information with its partners in the government. In turn, the government provides information regarding risks, threats, and warnings to the ES-ISAC, which then disseminates that information throughout the electricity sub-sector.

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

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

The ES-ISAC also maintains a seat on the operations floor of the National Cybersecurity and Communications Integration Center (NCCIC) within the Department of Homeland Security (DHS). This 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 and make initial determinations of potential BPS impacts. The ES-ISAC maintains other information sharing relationships throughout the U.S. and Canadian governments, including DOE, Canadian Secret Intelligence Service, and the US Department of Defense. The ES-ISAC also coordinates information sharing with similar agencies in Australia, New Zealand, and the United Kingdom.

The resources currently devoted to supporting the ES-ISAC are contained and budgeted in a separate department. These resources consist primarily of personnel and contractors who gather, analyze and provide information regarding cyber threats to industry through a secure communications portal and the costs to operate and maintain that portal. By having access to information regarding threats, including threats faced by other sectors such as the financial and communications industries, and the ability to analyze the potential impact of these threats on the electric sector and rapidly sharing this information with industry, the security of the electricity sector will be improved.

¹⁴ 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.

To keep pace with the growth and risk of cyber attacks and the associated need for information sharing with other sectors and industry in order to mitigate potential significant BPS reliability risk, NERC's 2014 budget includes a significant increase in the resources devoted to supporting ES-ISAC. This additional resource support is in three areas: (1) improving the usability and functionality of the information sharing portal (2) the preparation of a cyber risk preparedness toolkit to allow industry to conduct self assessments of cyber risk preparedness and (3) adding personnel to increase analytical capabilities, portal monitoring and information sharing and shift staffing on the NCIC floor. The additional cost in 2014 associated with improving the portal and information sharing capabilities consists primarily of software licensing fees. The preparation of the cyber risk preparedness toolkit will reduce the projected ongoing costs for NERC to conduct individual cyber risk preparedness assessments for industry in the absence of the industry having a tool to conduct these assessments.

The federal government has been piloting a new form of highly secure information sharing network and associated technology that can be utilized to identify, track and deploy fixes to emerging cyber security threats. This project, a combination of what is known as the "Cyber Federated Model" and "Cyber Risk Information Sharing Program", is at a point where the tools are ready to be commercialized. Federal funding provided to incubate this technology up to the point of commercialization is expected to be reduced or eliminated in 2014 and replaced by private sector sources of funding. NERC has not included any specific funding to support the commercialization of this portal and associated technology in 2014. However, once the additional details and specifics are known, and subject to other funding constraints, NERC may consider utilizing operating reserves to provide financial support for this initiative in accordance with its Working Capital and Operating Reserve Policy. Further details regarding this initiative are provided below under the heading "Near Real-Time Threat Data Exchange". The JEEC supports CFM and expanding deployment of CRISP, as well as the integration of these tools into the ES-ISAC.

Resource Requirements

Personnel

The increase of 1.47 FTEs includes the assumption of 4% attrition in all departments and the timing of hiring 2.0 additional staff positions in 2014.

Contractors, Technology, and Tool Expenses

The 2014 contractor and consulting budget for ES-ISAC budget is approximately \$880k, which represents an increase of approximately \$423k over the 2013 budget. This includes funding for existing and added tools and technology. The line-by-line budget detail is set forth in Exhibit C. The following is a further discussion of the specific nature and need for these resources.

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 present platform is cumbersome for registered entities to use and has limited flexibility to support additional functionality, such as tighter integration with other ISACs and different types of collaboration support. The National Council of ISACs recently informed NERC of a program that could more fully integrate the ES-ISAC's

existing information sharing platform with other formal ISACs, as well as significantly expand the portal capabilities, functionality and capacity. This integration will be accomplished through an arrangement between NERC, Microsoft and [Cyber IQ Services](#) (CIQS), which will then maintain the ES-ISAC's portal in a cloud-based secure platform solution. This portal will facilitate direct data exchange with other ISACs and government partners. The portal will also support the ES-ISAC analysts in their information analysis functions and tie the ES-ISAC analysts together with their counterparts in other sectors and national laboratories. The 2014 cost of the CIQS portal integration is \$250k, which is a \$160k increase over the 2013 portal budget.

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 bulk power system community. To support this intelligence role, the ES-ISAC budget includes the costs of a contract for intelligence services from a specialized security information service provider that focuses closely on the electricity sub-sector, and has a working relationship with DOE's Idaho National Laboratory. These reporting services include weekly, quarterly, and annual news in the industrial controls systems (ICS) and security space, along with expert guidance, opinion, and sourced material. This service gives ES-ISAC staff increased understanding of continuing trends, breaking news, and implications to the BPS which they utilize to keep registered entities informed regarding emerging bulk power system risks through alerts and *esisac.com* security postings. The 2014 budget for these services is \$42k, a \$2k increase over 2013.

Cyber Risk Preparedness Assessments (CRPA)

The CRPA is a program to assess 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 CRPA incorporates many of the practices of the Electricity Subsector Cybersecurity Capability Maturity Model, allowing the participating organization to assess its cybersecurity program and use the CRPA to validate its assessment. The ES-ISAC is developing a CRPA "kit" for entities to use in developing and running 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 towards self-sustainment within the industry. To accommodate more CRPA engagements and to develop a complete "kit" for use by industry partners, the contractor and consulting budget to support these activities will be increased from \$150k in 2013 to \$300k in 2014. Commencing in 2015, the ES-ISAC will conduct only one or two strategic CRPA engagements, with the expectation that industry will engage in the program through the "kits." The 2015 budget for this activity is expected to remain at a minimal level to aggregate results across the sector, support ongoing development of best practices and information sharing, and promote continued adoption of the methodology

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 BPS. 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 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 BPS entities, 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 two sets of three webinars each until at least 2017. \$30k is budgeted to support this activity in 2014, a \$15k increase over 2013.

Secure Bi-Directional Communications

Certain emergent security situations may require the ES-ISAC to quickly transmit secure information from the ES-ISAC to DHS' NCCIC, DOE and its National Laboratories, and among different registered entities. DOE recently developed the Contested Operational Network for Reporting and Defense (CONRAD) system for its own internal communications that is now available for the ES-ISAC's use. The CONRAD system is an "out-of-band" network that ES-ISAC cyber analysts will use to communicate with their peers. The CONRAD system implements a specific network architecture that is separate from all regular site enterprise networks such as Voice over Internet Protocol, normal email, web-based applications, and standard telephony. The CONRAD deployment is a fee-based contract costing \$8k every three years per network interface device; each location that participates in CONRAD requires a Network interface device. For the initial 2014 deployment of 20 devices the cost is \$54k and is an incremental \$29k cost over the 2013 budget. NERC will utilize one device and make the remaining 19 devices available to a limited number of other registered entities on a priority basis.

Cyber Awareness Monitoring

A new class of cyber intelligence tools is emerging in the marketplace that collects and analyzes information and then alerts the user about selected threats. This collection and analysis goes beyond the individual organization's network perimeter and gives organizations like the ES-ISAC visibility across the entire industrial sector. Key global Internet infrastructure data sources are combined with advanced visual analysis tools, providing ES-ISAC staff with enhanced analytic capabilities. The ES-ISAC currently licenses cyber awareness and continuous monitoring tools and services, including third party services, which 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 bulk power system entities. ES-ISAC staff can then alert individual entities to problems. In 2013, the ES-ISAC portal will begin to provide individual asset owners with a customized view of their asset networks. This view will provide the asset owner with insight into the organization's general 'network hygiene' and highlight any significant network activity of concern. The 2014 cost for this software application and services is budgeted at \$152,700, an increase of \$32.7K over 2013.

Attack Tree Threat Modeling

Attack trees are hierarchical, graphical diagrams that show how low-level hostile activities interact and combine to achieve an adversary's objectives - usually with negative consequences for the victim of the attack. ES-ISAC staff has been working with a vendor that has developed an advanced attack tree-based threat risk assessment tool to discover which weaknesses are most likely to be used by attackers within a particular network. This tool provides the capability to pose "what-if" attack scenarios and threat modeling against the BPS. Creating a deep set of attack scenarios informs the risk management process and allows the ES-ISAC team to apply this deep knowledge during emergent situations and compare a "what-if" scenario to the real-time data feeds. The 2014 budgeted cost for this tool and supporting services is \$7.5k, which is consistent with the 2013 budget. This cost is budgeted under Office Costs as a software maintenance expense.

Software Integration Support and BPS Mapping 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 bulk power system maps with cyber intelligence information. The 2014 budget for software integration support and bulk power system mapping is \$89,250, an increase of \$6,750 over the 2013 budget. A portion of these costs are budgeted under Office Costs as software maintenance expense.

Analyst Workbench

A strong technical analytic capability is needed to develop baselines and identify patterns and understanding. 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 a non-operational capacity. The analyst workbench will also offer standalone functionality for assessing and understanding cyber events. This workbench will include a threat database for historical correlation and various tools for network and host-based analysis of malicious software. The 2014 budget to support this activity is \$30,000 and includes funding for information services and software tools. This is consistent with the 2013 budget.

Near Real-Time Threat Data Exchange

The Cyber Federated Model (CFM) is a system funded by the DOE which is focused on the near real-time automated exchange of cyber threat information. The rapid dissemination of threat information strengthens the sector's overall cyber security posture, allowing sites to focus more on local threats (targeted only at their sites). If one site is attacked, secure and timely communications are distributed to all users which will aid in protecting others from the same attack. The ability to securely share such threat information in an automated, near real-time, machine-to-machine, process will assist in strengthening the entire sector from cyber attacks. As of first quarter 2013, 12 entities, including several federally owned utilities and several large investor-owned utilities were involved in pilot programs using this framework for automated cyber threat sharing.

The Cyber Risk Information Sharing Program (CRISP), has also been developed by DOE and undergoing a pilot phase throughout 2013. CRISP supplements other governmental programs

by providing a near-real-time process for critical infrastructure owners and operators to voluntarily share cyber threat data with the government and receive machine-to-machine “fix” for this threat.

The DOE has indicated it intends to move to private funding for the commercialization of CFM and CRISP during 2014. While NERC believes both of these initiatives are important, as previously stated NERC’s proposed 2014 budget does not include specific funding to support CFM or CRISP. Preliminary estimates of 2014 funding requirements for CFM and CRISP are \$650k and 100K, respectively.

Both the JEEC and U.S. DHS and DOE support expanding deployment of CRISP (from roughly five entities to at least 20), and CFM including integration of these tools into the ES-ISAC.¹⁵

¹⁵ DHS has also developed a set of tools in this near- real-time threat data exchange area (Structured Threat Information eXpression (STIX) and the Trusted, Automated eXchange of Indicator Information) TAXII). These tools are being integrated into the new ES-ISAC CIQS portal.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2013 Budget & Projection, and 2014 Budget CRITICAL INFRASTRUCTURE DEPARTMENT & ES-ISAC					
	2013 Budget	2013 Projection	Variance 2013 Projection v 2013 Budget Over(Under)	2014 Budget	Variance 2014 Budget v 2013 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 7,991,299	\$ 7,396,148	\$ (595,151)	\$ 9,972,051	\$ 1,980,752
Penalty Sanctions	371,044	371,044	(0)	46,895	(324,149)
Total NERC Funding	\$ 8,362,343	\$ 7,767,192	\$ (595,151)	\$ 10,018,946	\$ 1,656,603
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	95,000	95,000	-	45,000	(50,000)
Interest	2,884	-	(2,884)	3,163	279
Miscellaneous	-	-	-	-	-
Total Funding (A)	\$ 8,460,227	\$ 7,862,192	\$ (598,035)	\$ 10,067,108	\$ 1,606,881
Expenses					
Personnel Expenses					
Salaries	\$ 2,853,871	\$ 2,933,923	\$ 80,052	\$ 3,307,057	\$ 453,186
Payroll Taxes	172,586	174,854	2,268	196,294	23,708
Benefits	250,885	270,626	19,741	385,331	134,446
Retirement Costs	312,315	302,031	(10,284)	376,441	64,126
Total Personnel Expenses	\$ 3,589,657	\$ 3,681,434	\$ 91,777	\$ 4,265,123	\$ 675,466
Meeting Expenses					
Meetings	\$ 145,000	\$ 120,000	\$ (25,000)	\$ 145,000	\$ -
Travel	420,000	328,428	(91,572)	330,000	(90,000)
Conference Calls	24,000	23,725	(275)	25,000	1,000
Total Meeting Expenses	\$ 589,000	\$ 472,154	\$ (116,846)	\$ 500,000	\$ (89,000)
Operating Expenses					
Consultants & Contracts	\$ 785,000	\$ 785,000	\$ -	\$ 1,110,450	\$ 325,450
Office Rent	-	-	-	-	-
Office Costs	125,250	130,968	5,718	86,250	(39,000)
Professional Services	-	-	-	-	-
Miscellaneous	500	500	-	500	-
Depreciation	-	16,425	16,425	-	-
Total Operating Expenses	\$ 910,750	\$ 932,892	\$ 22,142	\$ 1,197,200	\$ 286,450
Total Direct Expenses	\$ 5,089,407	\$ 5,086,480	\$ (2,927)	\$ 5,962,323	\$ 872,916
Indirect Expenses	\$ 3,327,882	\$ 3,512,382	\$ 184,500	\$ 3,990,609	\$ 662,727
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 8,417,290	\$ 8,598,862	\$ 181,573	\$ 9,952,932	\$ 1,535,643
Change in Assets	\$ 42,937	\$ (736,670)	\$ (779,608)	\$ 114,176	\$ 71,238
Fixed Assets					
Depreciation	-	(16,425)	(16,425)	-	-
Computer & Software CapEx	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	\$ 42,937	\$ 51,195	8,258	114,176	71,239
Inc(Dec) in Fixed Assets (C)	\$ 42,937	\$ 34,770	\$ (8,167)	\$ 114,176	\$ 71,239
TOTAL BUDGET (=B + C)	\$ 8,460,227	\$ 8,633,632	\$ 173,406	\$ 10,067,108	\$ 1,606,882
FTEs	19.25	18.83	(0.42)	20.70	1.45

Training, Education, and Operator Certification

Training, Education and Operator Certification (in whole dollars)			
	2013 Budget	2014 Budget	Increase (Decrease)
Total FTEs	8.00	8.16	0.16
Direct Expenses	\$ 2,170,906	\$ 2,168,423	\$ (2,483)
Indirect Expenses	\$ 1,383,017	\$ 1,573,110	\$ 190,093
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 17,844	\$ 45,009	\$ 27,165
TOTAL BUDGET	\$ 3,571,768	\$ 3,786,541	\$ 214,774

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, relating to their job responsibilities. It also provides training and education to industry participants on the requirements of reliability standards and the compliance monitoring and enforcement process. Further, this program provides training to industry participants on the reliability standards development process, thereby helping to support the more efficient and effective development of mandatory reliability standards. The Training and Education Program therefore supports the performance of NERC's statutory ERO responsibilities to develop, adopt and obtain approval of reliability standards and to monitor, enforce and achieve compliance with the mandatory standards. Section 901 of the NERC ROP addresses the Training and Education Program's activities in these areas.

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

2014 Goals and Deliverables

In response to stakeholder and Regional Entity feedback, training and education opportunities will be further expanded and focused for NERC, Regional Entities, and registered entities. For registered entities, this training and education will focus on objectives related to various reliability standards including how to best comply with standards and improve bulk power system reliability, as well as cyber related topics. For NERC and Regional Entity staff, the training and education will focus on consistent audit and investigation techniques and standards compliance reviews, including the RAI, FFT and other improvements in compliance and enforcement practices. NERC will continue to offer training in auditor skills to promote continued development of auditing expertise. NERC will leverage information technology systems to better deliver and share common training products and information with regional and registered entities. Other training will focus on knowledge and skills development in a number of key areas, including:

- Critical Infrastructure Protection standards information;
- 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;
- Risk-based assessment methods;
- 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;
- Currently-monitored standards;
- Entity registration process, issues, and alternatives;
- Human performance fundamentals; and
- Systematic approach to training

NERC will continue to provide learning opportunities through workshops hosted by the Regional Entities. NERC will also host workshops, webinars, and training courses, as well as use vendors to develop training modules and supplement internal training resources, as NERC designs and implements further NERC-hosted electronic training and educational opportunities. NERC's Training and Education group will also continue to advance and improve 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.

Resource Requirements

Personnel

No additional personnel are budgeted for 2014. The increase of 0.16 FTEs is due to the transfer of 0.5 FTEs in 2013 from another department and the 4% attrition assumption in all departments.

Contractor Expenses

The total proposed consulting and contractor expenses of approximately \$849k in 2014 is consistent with the 2013 budget.

Further detail in support of the proposed 2013 contractor and consulting budget to support Training, Education and Operator Certification is set forth in Exhibit C, including a comparison to 2012 budgeted amounts. The primary areas of contractor and consulting support include:

- Testing services to develop, administer, proctor, score, and support system operator certification exams across North America
- Ongoing hosting and maintenance fees for the SOCCED database
- Improvements to the SOCCED database described above
- Supplemental support to Continuing Education Review Panel industry volunteers to review and audit over 2,500 individual learning activities and provider applications received each year¹⁶
- Audit team leader soft skills training delivered by certified NERC staff and/or consultants to support effective dialogue and communications between audit teams and registered entities will be provided quarterly using vendor licensed materials
- Vendor supported BPS technical training for select NERC staff, including auditors, technical and support staff
- Auditor training by recognized auditing specialists for NERC and Regional Entity staff to promote continued development of compliance staff
- Web based training development for ERO staff and/or industry, including standards applications, risk assessment training, industry human performance fundamentals, and BPS events lessons learned

¹⁶ 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.

**Statement of Activities, Fixed Assets Expenditures and Change in Working Capital
2013 Budget & Projection, and 2014 Budget**

TRAINING, EDUCATION and OPERATOR CERTIFICATION

	2013 Budget	2013 Projection	Variance	2014 Budget	Variance
			2013 Projection v 2013 Budget Over(Under)		2014 Budget v 2013 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 1,449,793	\$ 1,449,793	\$ -	\$ 1,697,796	\$ 248,003
Penalty Sanctions	93,484	93,484	\$ -	11,962	(81,522)
Total NERC Funding	\$ 1,543,277	\$ 1,543,277	\$ -	\$ 1,709,758	\$ 166,481
Membership Dues	-	-	-	-	-
Testing Fees	1,680,000	1,680,000	-	1,620,000	(60,000)
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	1,199	1,261	62	1,247	48
Miscellaneous	-	-	-	-	-
Total Funding (A)	\$ 3,224,476	\$ 3,224,538	\$ 62	\$ 3,331,005	\$ 106,529
Expenses					
Personnel Expenses					
Salaries	\$ 837,645	\$ 819,913	\$ (17,732)	\$ 806,116	\$ (31,529)
Payroll Taxes	54,087	58,119	4,032	56,919	2,832
Benefits	112,397	109,570	(2,827)	151,918	39,521
Retirement Costs	94,203	75,253	(18,950)	91,840	(2,363)
Total Personnel Expenses	\$ 1,098,332	\$ 1,062,855	\$ (35,477)	\$ 1,106,793	\$ 8,461
Meeting Expenses					
Meetings	\$ 30,000	\$ 33,608	\$ 3,608	\$ 36,000	\$ 6,000
Travel	70,000	63,383	(6,617)	51,000	(19,000)
Conference Calls	27,000	27,500	500	27,000	-
Total Meeting Expenses	\$ 127,000	\$ 124,491	\$ (2,509)	\$ 114,000	\$ (13,000)
Operating Expenses					
Consultants & Contracts	\$ 848,574	\$ 847,573	\$ (1,001)	\$ 848,830	\$ 256
Office Rent	-	-	-	-	-
Office Costs	96,500	90,016	(6,484)	98,300	1,800
Professional Services	-	100	100	-	-
Miscellaneous	500	105	(395)	500	-
Depreciation	-	-	-	-	-
Total Operating Expenses	\$ 945,574	\$ 937,794	\$ (7,780)	\$ 947,630	\$ 2,056
Total Direct Expenses	\$ 2,170,906	\$ 2,125,140	\$ (45,766)	\$ 2,168,423	\$ (2,483)
Indirect Expenses	\$ 1,383,017	\$ 1,492,250	\$ 109,233	\$ 1,573,110	\$ 190,093
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 3,553,922	\$ 3,617,390	\$ 63,467	\$ 3,741,533	\$ 187,610
Change in Assets	\$ (329,446)	\$ (392,852)	\$ (63,405)	\$ (410,528)	\$ (81,081)
Fixed Assets					
Depreciation	-	-	-	-	-
Computer & Software CapEx	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	\$ 17,844	\$ 21,750	3,906	45,009	\$ 27,165
Inc(Dec) in Fixed Assets (C)	\$ 17,844	\$ 21,750	\$ 3,906	\$ 45,009	\$ 27,165
TOTAL BUDGET (=B + C)	\$ 3,571,766	\$ 3,639,140	\$ 67,373	\$ 3,786,541	\$ 214,774
FTEs	8.00	8.00	0.00	8.16	0.16

Administrative Services

Administrative Services (in whole dollars)			
	2013 Budget	2014 Budget	Increase (Decrease)
Total FTEs	52.75	59.14	6.39
Total Direct Expenses	\$ 23,079,081	\$ 25,233,374	\$ 2,154,293
Inc(Dec) in Fixed Assets	\$ 297,774	\$ 721,958	\$ 424,184
Less: Other Funding Sources			\$ -
Total Allocation to Statutory Programs as Indirect Expenses	\$ 23,376,855	\$ 25,955,332	\$ 2,578,477

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 of Trustees fees and expenses, the president and chief executive officer and support staff, communications and governmental affairs, and office rent (3) Legal and Regulatory, (4) Information Technology, (5) Human Resources and (6) Finance and Accounting, and 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 expense. The resource requirements and comparative budget information for each of these functions is described further below.

Technical Committees and Members' Forum Program

While NERC management and staff will continue to interact with and support numerous reliability related forums, including but not limited to the North American Transmission Forum and Generator Forum, NERC's 2014 budget does not contain specific funding for any forum activities.

General and Administrative

General and Administrative (in whole dollars)			
	2013 Budget	2014 Budget	Increase (Decrease)
Total FTEs	8.00	10.56	2.56
Total Direct Expenses	\$ 7,325,556	\$ 8,390,813	\$ 1,065,257
Inc(Dec) in Fixed Assets	\$ (350,526)	\$ (419,399)	\$ (68,873)

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 COO, the CEO's executive assistant, communications and public relations staff, and costs related to the Board of Trustees. No additional personnel are budgeted for 2014. The increase of 2.56 FTEs is due to 2013 additions and transfers from other departments and includes the assumption of 4% attrition.

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

Board of Trustee Expenses	Budget 2013	Projection 2013	Budget 2014	2014 v 2013 Budget	Variance %
Meetings and Travel Expenses					
Quarterly Board Meetings	\$ 234,000	\$ 284,000	\$ 314,000	\$ 80,000	
Trustee Travel	155,000	155,000	155,000	-	
Total Board of Trustees Meetings and Travel Expenses	389,000	439,000	469,000	80,000	
Professional Services					
Independent Trustee Fees	980,000	980,000	980,000	-	
Trustee Search Fees	-	-	-	-	
Total Board of Trustee Professional Services Expenses	980,000	980,000	980,000	-	
Total Board of Trustee Expenses	\$ 1,369,000	\$ 1,419,000	\$ 1,449,000	\$ 80,000	5.84%

The 2014 Miscellaneous Expense budget is \$36,500, an increase of \$15k over 2013. 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 member 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 which are not otherwise included in personnel expense (\$10k), and (4) year end employee holiday meal expenses (\$10k).

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2013 Budget & Projection, and 2014 Budget					
GENERAL and ADMINISTRATIVE					
	2013 Budget	2013 Projection	Variance 2013 Projection v 2013 Budget Over(Under)	2014 Budget	Variance 2014 Budget v 2013 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ (1,686,309)	\$ (1,686,309)	\$ -	\$ (2,552,465)	\$ (866,156)
Penalty Sanctions	-	-	-	-	-
Total NERC Funding	\$ (1,686,309)	\$ (1,686,309)	\$ -	\$ (2,552,465)	\$ (866,156)
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
Miscellaneous	-	224	224	-	-
Total Funding (A)	\$ (1,686,309)	\$ (1,686,085)	\$ 224	\$ (2,552,465)	\$ (866,156)
Expenses					
Personnel Expenses					
Salaries	\$ 1,342,080	\$ 2,243,088	\$ 901,008	\$ 2,031,740	\$ 689,660
Payroll Taxes	60,640	99,559	38,919	89,250	28,610
Benefits	156,238	266,480	110,242	196,574	40,336
Retirement Costs	175,179	66,007	(109,172)	158,550	(16,629)
Total Personnel Expenses	\$ 1,734,136	\$ 2,675,134	\$ 940,997	\$ 2,476,114	\$ 741,977
Meeting Expenses					
Meetings	\$ 260,000	\$ 351,500	\$ 91,500	\$ 348,000	\$ 88,000
Travel	322,000	443,482	121,482	452,000	130,000
Conference Calls	57,500	19,059	(38,441)	21,500	(36,000)
Total Meeting Expenses	\$ 639,500	\$ 814,041	\$ 174,541	\$ 821,500	\$ 182,000
Operating Expenses					
Consultants & Contracts	\$ 150,000	\$ 152,000	\$ 2,000	\$ 175,000	\$ 25,000
Office Rent	2,756,840	2,695,217	(61,623)	2,617,300	(139,540)
Office Costs	507,000	502,315	(4,685)	502,000	(5,000)
Professional Services	1,132,053	1,132,053	-	1,080,000	(52,053)
Miscellaneous	5,500	5,000	(500)	5,500	-
Depreciation	350,526	418,426	67,900	419,399	68,873
Total Operating Expenses	\$ 4,901,919	\$ 4,905,011	\$ 3,092	\$ 4,799,199	\$ (102,720)
Total Direct Expenses	\$ 7,275,556	\$ 8,394,186	\$ 1,118,630	\$ 8,096,813	\$ 821,257
Indirect Expenses	\$ (7,325,556)	\$ (8,408,181)	\$ (1,082,625)	\$ (8,240,813)	\$ (915,257)
Other Non-Operating Expenses	\$ 50,000	\$ 57,995	\$ 7,995	\$ 144,000	\$ 94,000
Total Expenses (B)	\$ -	\$ 44,000	\$ 44,000	\$ -	\$ -
Change in Assets	\$ (1,686,309)	\$ (1,730,085)	\$ (43,776)	\$ (2,552,465)	\$ (866,156)
Fixed Assets					
Depreciation	(350,526)	(418,426)	(67,900)	(419,399)	(68,873)
Computer & Software CapEx	-	-	-	-	-
Furniture & Fixtures CapEx	-	337,684	337,684	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	77,803	77,803	-	-
Allocation of Fixed Assets	\$ 350,526	\$ 740	(349,786)	419,399	68,873
Inc(Dec) in Fixed Assets (C)	\$ -	\$ (2,199)	\$ (2,199)	\$ -	\$ -
TOTAL BUDGET (=B + C)	\$ -	\$ 41,801	\$ 41,801	\$ -	\$ -
FTEs	8.00	11.06	3.06	10.56	2.56

Legal and Regulatory

Legal and Regulatory (in whole dollars)			
	2013 Budget	2014 Budget	Increase (Decrease)
Total FTEs	14.00	15.15	1.15
Total Direct Expenses	\$ 4,045,729	\$ 4,400,021	\$ 354,292
Inc(Dec) in Fixed Assets	\$ -	\$ -	\$ -

Background and Scope

The Legal and Regulatory department provides legal and regulatory support to the organization. This department's workload is largely derivative of and supports the work of several of NERC's key program areas. Increasing demands are being placed on this group from three primary areas: compliance operations, investigations, and standards. In addition, this 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 needs for which are growing as the NERC and the ERO continue to mature and legal support needs of the organization continue to become broader and more complex.

Resource Requirements

One FTE will be added to provide additional administrative support for the Legal and Enforcement departments. The increase of 1.15 FTEs includes the one FTE addition planned in 2014, the transfer of one FTE in 2013 from another department, and the assumption of 4% attrition in 2014.

Outside law firms and consultants supporting this area are budgeted and tracked as Professional Services. The Professional Services budget is \$850k for 2014, a decrease of \$100k from the 2013 budget. The Professional Services budget includes outside legal fees to support the completion of the Five Year ERO Performance Assessment in 2014.

**Statement of Activities, Fixed Assets Expenditures and Change in Working Capital
2013 Budget & Projection, and 2014 Budget**

LEGAL and REGULATORY

Funding	2013	2013	Variance	2014	Variance
	Budget	Projection	2013 Projection v 2013 Budget Over(Under)	Budget	2014 Budget v 2013 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalty Sanctions	\$ -	\$ -	\$ -	\$ -	\$ -
Total NERC Funding	\$-	\$ -	\$ -	\$ -	\$ -
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Funding (A)	\$ -	\$ -	\$ -	\$ -	\$ -
Expenses					
Personnel Expenses					
Salaries	\$ 2,325,293	\$ 2,414,302	\$ 89,009	\$ 2,637,399	\$ 312,106
Payroll Taxes	119,177	125,762	6,585	136,718	17,541
Benefits	185,835	225,634	39,799	282,017	96,182
Retirement Costs	261,724	222,274	(39,450)	296,887	35,163
Total Personnel Expenses	\$ 2,892,029	\$ 2,987,972	\$ 95,943	\$ 3,353,021	\$ 460,992
Meeting Expenses					
Meetings	\$ 5,000	\$ 10,217	\$ 5,217	\$ 5,000	\$ -
Travel	144,500	144,500	-	124,500	(20,000)
Conference Calls	3,200	7,320	4,120	3,500	300
Total Meeting Expenses	\$ 152,700	\$ 162,037	\$ 9,337	\$ 133,000	\$ (19,700)
Operating Expenses					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	50,500	61,968	11,468	63,500	13,000
Professional Services	950,000	950,000	-	850,000	(100,000)
Miscellaneous	500	500	-	500	-
Depreciation	-	3,021	3,021	-	-
Total Operating Expenses	\$ 1,001,000	\$ 1,015,489	\$ 14,489	\$ 914,000	\$ (87,000)
Total Direct Expenses	\$ 4,045,729	\$ 4,165,498	\$ 119,769	\$ 4,400,021	\$ 354,292
Indirect Expenses	\$ (4,045,729)	\$ (4,170,281)	\$ (124,552)	\$ (4,400,021)	\$ (354,292)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ -	\$ (4,783)	\$ (4,783)	\$ -	\$ -
Change in Assets	\$ -	\$ 4,783	\$ 4,783	\$ -	\$ -
Fixed Assets					
Depreciation	-	(3,021)	(3,021)	-	-
Computer & Software CapEx	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	\$ -	\$ 3,021	-	-	-
Inc(Dec) in Fixed Assets (C)	\$ -	\$ -	\$ (3,021)	\$ -	\$ -
TOTAL BUDGET (=B + C)	\$ -	\$ (4,783)	\$ (7,804)	\$ -	\$ -
FTEs	14.00	14.09	0.09	15.15	1.15

Information Technology

Information Technology (in whole dollars)			
	2013 Budget	2014 Budget	Increase (Decrease)
Total FTEs	16.75	18.07	1.32
Total Direct Expenses	\$ 7,978,705	\$ 8,626,078	\$ 647,373
Inc(Dec) in Fixed Assets	\$ 649,098	\$ 1,141,357	\$ 492,259

Background and Scope

NERC's information technology department (IT) budget includes the resources necessary to support NERC's internal operations and builds on the initiatives, which commenced in 2013 to replace several internal outdated legacy applications, such as the standards balloting system, numerous registration applications, and improve the NERC website, with focus on security and disaster recovery. In addition, significant emphasis and resources have been placed on working collaboratively with the Regional Entities to build enterprise applications to replace numerous time consuming and manual efforts, reduce duplicative input by the registered entities and build a foundation for business intelligence and analytics regarding reliability risks in order to establish ERO resource priorities and allocations, as well as provide information to stakeholders for use in their own reliability risk management planning and resource allocation.

NERC's IT staffing strategy over the last several years has been to use a small core internal IT staff and leverage expertise of external contractors for specific work areas. External contractors are used for numerous maintenance and development tasks for the various NERC applications and infrastructure. In addition, all major application development during 2013 is being performed with the assistance of external firms. For example, the primary ERO Enterprise application under development in 2013 is the BES application. NERC has teamed with an external vendor to develop this application and will retain their services for maintenance support. As the ERO Enterprise systems grow over time, NERC management will assess the balance of internal and external resources to get the required work completed at an efficient cost and acceptable performance and risk profile.

NERC has divided the IT department contractor and consulting budget into two categories: Ongoing Operations and ERO Enterprise Applications. Ongoing operations describe those applications required to support NERC internal business and statutory activities, along with back office applications such as accounting and finance, office productivity (Email, MS Office, etc), security and disaster recovery. ERO Enterprise applications are defined as those applications deemed to have similar business process and functions across NERC and the Regional Entities.

Resource Requirements

Personnel

A database analyst and webmaster are proposed to be added to this department in 2014. The addition of a dedicated database analyst is necessary to support the significant number of databases that NERC utilizes and manages for ERO operations. The company does not presently have a database analyst on staff. The addition of a webmaster is necessary to support the day-to-day maintenance of NERC's website and associated applications which are used extensively to support both internal external knowledge management and communications. The increase of 1.32 FTEs over 2013 includes the timing of hiring of the proposed 2014 additions and the 4% attrition assumption.

Contract and Consulting Resources to Support Ongoing Operations

The following text provides a description of required contractor and consulting support for ongoing operations, followed by a chart containing a three-year projection of costs. The 2014 budgeted amounts are also set forth in Exhibit C, together with a comparison to 2013 budgeted amounts.

Security and Vulnerability Testing of NERC Website and Network — Ongoing intrusion detection and vulnerability testing of the NERC public website, NERC network, applications and systems. Testing is conducted by an outside vendor using the latest intrusion techniques to test the security of the NERC network. Multiple attempts are made to gain access and any vulnerabilities identified are documented and provided to NERC Information Technology for rapid remediation.

Maintenance and Re-Design of NERC Legacy Applications — Utilizing resources included to support ongoing operations in 2014, NERC initiated a multi-year effort to replace several legacy applications, some initially coded over a decade ago and lacking many common features of modern, efficient software. Currently, there are over eight registration applications that provide Regional Entities, registered entities, governmental agencies, and general public access to NERC applications and data based upon registration, vetting, and, if appropriate, approval to access data and applications. In addition, there are numerous other tools associated with the legacy registration applications that provide connectivity, security parameters and other pieces of information that are then fed to several applications and databases. Each application and database is heavily used by NERC staff, Regional Entity staff and registered entities to perform various ERO-related business functions. These legacy applications are cumbersome, difficult to administer, require multiple registrations by registered entities and lack many of the self-service features which are common in modern applications, causing up to one hundred monthly NERC IT support tickets for assistance with resetting passwords, unknown or forgotten usernames and a myriad of other technical support issues minimized by contemporary technology.

Funding in this category for ongoing operations includes numerous software applications common to NERC business processes such as the Standards Balloting System (SBS), ERO Membership, NERC My Account, User Management Profile and Compliance Reporting and Tracking System (CRATS).

Disaster Recovery Planning – Consultant Services — Initial steps were taken in 2013 to set up, test and implement applications deemed important to communication during a disaster scenario. Calendar year 2015 will be used to further improve disaster recovery planning to include setting up those business applications required to be functional at an offsite location in the event access to the primary NERC offices have been impacted by an unforeseen event, along with further enhancement and testing of NERC disaster recovery processes.

Security Program – Phased 2014 – 2016 — As outlined under the paragraph titled “Security and vulnerability testing of NERC website and network”, NERC IT performs a number of security 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 such as information classification, review of retention policies and enforcement of security guidelines.

NERC Website Phase II and Document Management – Combined Knowledge Management — During 2012 and the first quarter of 2013, there was a major initiative completed to redesign and rewrite the NERC public website using SharePoint 2010. The effort was focused on moving to a much more flexible product that would lay the foundation for future website enhancements such as improved navigation, document library and greatly improved analytics and search capability. 2014 will focus on two interrelated activities: NERC Website and Document Management, both of which are designed to improve knowledge management capability and to streamline information posted on the public facing website. NERC is planning to retain services of an external consultant with expertise in document and content management systems to help assess NERC and stakeholder needs and to assist in redesigning the organization of the massive amount of files and information contained on the NERC website.

Vendor Maintenance / Change Management – ERO Applications – ERO Enterprise applications developed in 2013, such as the BES application, along with applications slated for development and implementation in 2014 will require enhancements to functionality as business processes are modified. Those enhancements, in some instances may require considerable changes to user screens, workflow, or databases funded by this line item.

Audio Visual Architect (consultant) — NERC has 15 heavily-used conference rooms designed to provide audio, visual and, in some instances, video conference capability. The rooms were designed in 2011 prior to an in-depth understanding of the usage of the individual rooms to ensure they were designed for their specific purpose (e.g., NERC, Region and Industry training). In 2015, the audio, visual and video conference equipment will be over four years old, and conducting an audio visual assessment of room usage, along with recommendation for replacement equipment, would be best suited to an outside consulting firm who specializes in audio visual equipment and installation.

Network Architect (consultant) — Consulting services to review, recommend and implement solutions to re-architect the NERC internal network to align with industry best practices thereby

greatly simplifying the process of implementing applications and services while maintaining an emphasis on robust security.

Standards Issues Database — Database designed to capture FERC directives and track actions taken by multiple NERC program areas to adhere to the directive by cataloging specific actions taken and track ongoing compliance. In addition, the database would be used for internal NERC risk control to ensure risks have been identified and actions taken to mitigate or correct.

The table below summarizes the budgeted costs of ongoing operations.

Ongoing Operations	2014	2015	2016	3-Year Projection
Security vulnerability testing of NERC website & network	\$ 200,000	\$ 150,000	\$ 150,000	\$ 500,000
Maintenance and Re-Design of NERC Legacy Applications	\$ 764,000	\$ 904,000	\$ 350,000	\$ 2,018,000
Disaster Recovery Planning - Consultant Services	\$ -	\$ 150,000	\$ 150,000	\$ 300,000
Security Program - Phased 2014 – 2016	\$ 200,000	\$ 200,000	\$ 200,000	\$ 600,000
NERC Website Phase II & Document Management - Combined knowledge management	\$ 300,000	\$ 350,000	\$ 250,000	\$ 900,000
Vendor Maintenance / Change Management - ERO Applications	\$ 320,000	\$ 420,000	\$ 420,000	\$ 1,160,000
Audio Visual Architect (consultant)	\$ -	\$ 75,000	\$ -	\$ 75,000
Network Architect (consultant)	\$ -	\$ 120,000	\$ -	\$ 120,000
Standards Issues Database	\$ -	\$ 75,000	\$ 75,000	\$ 150,000
Total Ongoing Operations	\$ 1,784,000	\$ 2,444,000	\$ 1,595,000	\$ 5,823,000

ERO Enterprise Applications

ERO Enterprise applications are defined as those applications deemed to have similar business process and functions across NERC and the Regions and is a multi-year initiative tailored to improve productivity, and visibility to data, and reduce complexity. In late 2012, NERC and the Regional Entities collectively formed an ERO Project Management Office (ERO PMO) to oversee and manage the implementation of ERO Enterprise Applications. The ERO PMO follows well

established project management methodologies to design, build and implement ERO Enterprise Applications. These methodologies follow the global standards defined by the Project Management Institute (PMI), and encompass rigorous procedures for project planning, communications, contracts, resources, schedules, budgets, and risks. The ERO PMO, which is staffed by NERC personnel, works closely with, and is supported by an IT steering group (ITSG) comprised of the senior IT representatives from each Regional Entity and NERC and is governed by the terms of a charter approved by the EROEMG. Internally, the ERO PMO reports directly to the NERC Chief Operating Officer.

Each proposed ERO Enterprise Application goes through a multi-step process to define the application's purpose and parameters, obtain executive sponsorship and funding approval, define business and functional requirements and manage vendor selection. The ERO PMO processes also include well-defined tollgates and status reporting to ensure the project is meeting objectives during the execution. Each tollgate requires review and approval by the executive sponsor (typically, an EROEMG executive or executive designee), NERC program area officer for the lead program area the applications is intended to support and ITSG. At any point in the tollgate process, the project can be stopped for further review and remediation of issues.

The ERO Enterprise Applications outlined below are those applications which have been determined to be strategic by EROEMG over the 2014-2016 planning period and each approved project is required to follow the ERO PMO process. Each project is closely monitored and managed by the assigned project manager, ensuring all processes are followed and required checkpoints and approvals are obtained from all project stakeholders.

During 2013, NERC and the Regional Entities worked collaboratively under the ERO PMO framework described above to design, build and implement the BES enterprise application, centrally located in a dedicated data center, and which will be used by NERC, Regional Entities, and registered entities to manage BES exception applications. Three additional ERO Enterprise Applications, the Event Information Data System (EIDS), Reliability Assessment Data Store (RADS) and Compliance and Registration applications have been selected by the EROEMG for development and implementation over the 2013-2016 time frame using the ERO PMO framework discussed above. These applications will be used by both NERC and the Regional Entities to perform required business and statutory functions, thereby reducing multiple disparate applications and databases into single, agreed upon business applications. These applications will also be designed to provide a more cohesive view of data across applications and databases by NERC and the Regional Entity staffs and will incorporate design features that will allow the registered entities, along with the general public, access to reporting and analytics, designed to facilitate dashboards and reporting either with anonymous access, or to enhanced feature functionality, upon proper vetting and approval.

A description of EIDS and the associated development work and budget for 2014 is included in the Events Analysis department since this department has lead responsibility for the development of this tool. Similarly, a description of the RADS is included in the RAPA department and a description of the Compliance and Registration application that is proposed to be developed in 2015 is included in the Compliance Operation department. The projected development and infrastructure cost associated with each of these applications is summarized in the table below.

ERO Enterprise Fully Managed Services (dedicated hosting) – ERO Enterprise applications that have been deemed of similar business process and function will be implemented in a dedicated data center with fully outsourced IT services, to encompass all infrastructure requirements (e.g. power, cooling, fire protection, security, backup and recovery). In addition, all IT personnel activities such as Microsoft Windows system administration, database services, help desk and security will be performed by a vendor chosen by NERC and the Regional Entities following the ERO PMO process discussed above. The dedicated hosting environment will be used to run, manage and ensure the ERO Enterprise applications used by NERC and the Regional Entities are housed in a common, well secured dedicated data center facility. This approach is designed to ensure the overall security, availability, efficiency and cost effectiveness of the operation and maintenance of the ERO Enterprise Applications.

Contract Project Management Support – Supplemental project management and business analyst support of the ERO PMO will be required to manage the foregoing ERO Enterprise Applications to ensure that rigorous project methodology is followed before, during and after implementation. These resources will assist the ERO PMO in gathering the relevant business and functional requirements from NERC and the eight Regions, aggregate this information into a single cohesive requirements document and then manage the design, build and implementation process from inception to project closure.

Project Management Applications — Project management tools will be required over the planning period to track and monitor project resources throughout development and implementation to ensure scope is managed appropriately and projects are delivered on time and within budget. The tool would also be used by the Standards Program Area and replace the existing tool which lacks core capability and functionality to track activities.

The following table summarizes the projected Enterprise IT application development costs between 2014 and 2016.

Enterprise Applications	2014	2015	2016	3-Year Investment
Reliability Assessment Data Store (RADS) Development and Change Management Total ¹⁷		\$700,000	\$120,000	\$820,000
Enterprise Compliance application ¹⁸		\$1,650,000	\$500,000	\$2,150,000
ERO Enterprise Fully Managed Services (dedicated hosting)	\$420,000	\$480,000	\$540,000	\$1,440,000
ERO Enterprise Application Enhancement ¹⁹	\$300,000	\$100,000	\$100,000	\$500,000
Contract Project Management Support ²⁰	\$410,000	\$540,000	\$540,000	\$1,490,000
Project Management Application	\$60,000	\$60,000	\$60,000	\$180,000
Total	\$1,190,000	\$3,530,000	\$1,860,000	\$6,580,000

2014 IT Operating and Capital Expense Budget

As indicated above, IT planning has been based on a multi-year strategy designed to reduce complexity, improve productivity and gain a consolidated view of data across the ERO. Several criteria were considered during the planning phase, including the results of an IT architecture study conducted late 2011, and the need for visibility to aggregate data across the ERO and to improve collaboration among NERC and the Regions.

The NERC IT Architecture study determined that many of the ERO applications designed in prior years were shown to be in silos and unable to look across multiple disciplines in order to obtain an aggregate view of events or trending across the grid. Implementation of enterprise-class tools such as SharePoint, SQL Server 2008, Virtualization and centralized data warehouse

¹⁷ Development of the RADS application may commence in 2014 and will be identified as a known operating reserve contingency. 2014 funding will be subject to the availability of operating reserves to cover debt service (principal and interest cost) associated with the financing of the development of this application and the successful completion of the BESAlerts applications.

¹⁸ 2014 funding to define business requirements is included in the Compliance Operations department budget in connection with the Reliability Assurance Initiative.

¹⁹ The cost associated with the development of new software applications is expected to be financed. See Exhibit D for more information.

²⁰ The cost associated with the contract project management support of the development of new applications is also expected to be financed. See Exhibit D.

capability was deemed critical to provide greater productivity and efficiency, enhanced visibility to data and vastly improved collaboration.

2014 IT Operating Expenses

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

Office Costs	Budget 2013	Budget 2014	Variance
Telephone	\$ 175,000	\$ 225,000	
Internet	335,000	275,000	
Computer Supplies and Maintenance			
Computers	3,000	4,500	
Computer Supplies	116,900	95,400	
Maintenance & Service Agreements	1,226,325	1,564,370	
Software	37,500	140,500	
Total Office Costs	\$ 1,893,725	\$ 1,820,601	\$ (73,124)

Telephone Expenses

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

- NERC-issued cell phones are provided to employees to ensure access and productivity before, during and after business hours and cost is minimized by leveraging pooled minutes. Individual NERC employees are provided with a basic pooled cell phone plan of 450 minutes including a basic-level subscription for texting and data. This plan is designed to ensure persons who travel frequently have additional cell phone minutes, by taking advantage of limited usage by employees who travel less frequently. In addition, employees are encouraged to connect via wireless whenever possible to reduce cellular charges for data usage. The basic texting plan is provided for those instances when calling or email is not optimal. Cellular calling costs are included in the telephone expense item.
- Mobile laptop cellular air cards are provided to ensure connectivity while traveling or in locations where wireless connectivity is unavailable. Employees are encouraged whenever possible to connect via wireless versus cellular to reduce usage fees. Wireless or cellular connectivity to the NERC network is enabled using virtual private network technology to ensure maximum security, logging and encryption.
- Information Technology support persons are required to be available for support 24x7x365 that in almost all instances requires access to systems and network via secure internet connectivity. Included in the line item "telephone" are those monthly costs associated with internet access for systems, application, network and security to enable IT resources to provide support, 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, Information Technology 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 a very 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 when a presenter does not have a computer device available to conduct presentations. In addition, NERC will on a case-by-case basis and as justified by extensive travel or consistent out of office meetings 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 to include computer monitors, mice, keyboard, cell phones, cables, encrypted hard drives, encrypted thumb drives, encryption keys, uninterruptible power supplies (UPS), privacy screens, phone headsets, docking stations, computer memory and any other computer supplies or components required to support the technology infrastructure.

Maintenance and Service Agreements

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

Software

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

2014 IT Fixed Asset (Capital) Expenses

The following table presents a summary of NERC's 2014 fixed asset budget.

Fixed Assets	Budget 2013	Budget 2014	Variance
Computer & Software CapEx	\$ 1,556,100	\$ 2,258,800	
Equipment CapEx	\$ 216,000	\$ 213,000	
	<u>\$ 1,772,100</u>	<u>\$ 2,471,800</u>	<u>\$ 699,700</u>

In order to provide access, visibility and analysis of data from many different sources across the ERO, it will require significant investment in hardware, software and associated tools and technology. The overarching theme is to gain a holistic view of data across the enterprise in support of reliability and accountability of the bulk power system. Adding capability to centralize and mine data, in addition to foundational elements such as disaster recovery and application development, set the stage for vastly improved reporting, business intelligence and capability for collaboration and sharing of information vital to the ERO's mission.

In addition to the investments described above to support efficiency and consistency across the enterprise, the 2014 budget also includes the cost of software, servers, laptops, and other hardware to support daily operations.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2013 Budget & Projection, and 2014 Budget					
INFORMATION TECHNOLOGY					
	2013 Budget	2013 Projection	Variance 2013 Projection v 2013 Budget Over(Under)	2014 Budget	Variance 2014 Budget v 2013 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalty Sanctions					
Total NERC Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Funding (A)	\$ -	\$ -	\$ -	\$ -	\$ -
Expenses					
Personnel Expenses					
Salaries	\$ 1,651,076	\$ 1,817,066	\$ 165,990	\$ 2,013,859	\$ 362,783
Payroll Taxes	114,954	117,973	3,019	136,366	21,412
Benefits	224,184	226,994	2,810	336,373	112,189
Retirement Costs	178,464	177,098	(1,366)	229,767	51,303
Total Personnel Expenses	\$ 2,168,678	\$ 2,339,131	\$ 170,453	\$ 2,716,365	\$ 547,687
Meeting Expenses					
Meetings	\$ 5,000	\$ 2,401	\$ (2,599)	\$ 5,000	\$ -
Travel	62,000	59,243	(2,757)	60,000	(2,000)
Conference Calls	4,800	4,800	-	5,000	200
Total Meeting Expenses	\$ 71,800	\$ 66,444	\$ (5,356)	\$ 70,000	\$ (1,800)
Operating Expenses					
Consultants & Contracts	\$ 2,721,000	\$ 1,797,982	\$ (923,018)	\$ 2,204,000	\$ (517,000)
Office Rent	-	-	-	-	-
Office Costs	1,893,725	1,958,410	64,685	2,304,770	411,045
Professional Services	-	1,000	1,000	-	-
Miscellaneous	500	100	(400)	500	-
Depreciation	1,123,002	1,179,919	56,917	1,330,443	207,441
Total Operating Expenses	\$ 5,738,227	\$ 4,937,411	\$ (800,816)	\$ 5,839,713	\$ 101,486
Total Direct Expenses	\$ 7,978,705	\$ 7,342,987	\$ (635,718)	\$ 8,626,078	\$ 647,373
Indirect Expenses	(7,978,705)	(7,398,332)	580,373	(8,626,078)	(647,373)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ -	\$ (55,346)	\$ (55,346)	\$ -	\$ -
Change in Assets	\$ -	\$ 55,346	\$ 55,346	\$ -	\$ -
Fixed Assets					
Depreciation	(1,123,002)	(1,179,919)	(56,917)	(1,330,443)	(207,441)
Computer & Software CapEx	1,556,100	1,061,564	(494,536)	2,258,800	702,700
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	216,000	470,697	254,697	213,000	(3,000)
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	\$ (649,098)	\$ (352,342)	296,756	\$ (1,141,357)	\$ (492,259)
Inc(Dec) in Fixed Assets (C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL BUDGET (=B + C)	\$ -	\$ (55,346)	\$ (55,346)	\$ -	\$ -
FTEs	16.75	16.17	(0.58)	18.07	1.32

Human Resources

Human Resources (in whole dollars)			
	2013 Budget	2014 Budget	Increase (Decrease)
Total FTEs	3.00	2.88	(0.12)
Total Direct Expenses	\$ 1,527,797	\$ 1,110,049	\$ (417,748)
Inc(Dec) in Fixed Assets	\$ -	\$ -	\$ -

Background and Scope

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

2014 Goals and Objectives

Executive Training and Development

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

Staff Development

Management believes that access to knowledge is a key differentiator for NERC, ensures retention and high performance, and NERC therefore will 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 plants. Finally, staff will have access to additional education including but not limited to degree-oriented university education, pursuit of specialized certifications, and other in-house and external training that provides essential knowledge and skills development that will lead to improved staff performance.

Compensation Consulting

HR will continue to rely on market data to drive its attraction, engagement, and retention model. Periodically, HR will have a compensation consultant examine the current market data to ensure that decisions affecting compensation are made in light of the current market climate

and that qualified employees are attracted and retained within a defined total remuneration range. To protect NERC's substantial investment in human capital, HR will also engage consultants to consider compensation models and practices prevalent within the market that have been successful in attracting, engaging, and retaining talent. Similarly, HR may partner with compensation subject matter experts to perform periodic assessments of the BOT compensation model to ensure alignment with market practices. NERC's compensation policy and analysis of market data will be based on total remuneration, taking into account base and incentive compensation, as well as benefits.

Surveys

HR will retain a vendor to conduct periodic board and committee effectiveness surveys to identify improvement opportunities, as well as launch additional surveys as appropriate based on business needs.

Succession Planning

Critical to continued success towards ensuring the reliability of the bulk power system is minimizing disruption of knowledge/skill/experience bases of key staff. HR will work with senior management to identify essential roles and develop strategies to build pipelines and contingency plans for any loss of staff.

HR Products and Services Automation

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

Resource Requirements

Personnel

No additional personnel are proposed to be added in 2014. The 0.12 decrease in FTEs over 2013 is due to the assumption of 4% attrition in all departments.

Contractor Expenses

Contractor and consultant expenses are \$31k below 2013 budgeted amounts and are set forth in additional detail in Exhibit C.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2013 Budget & Projection, and 2014 Budget					
HUMAN RESOURCES					
	2013 Budget	2013 Projection	Variance 2013 Projection v 2013 Budget Over(Under)	2014 Budget	Variance 2014 Budget v 2013 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalty Sanctions					
Total NERC Funding	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Funding (A)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Expenses					
Personnel Expenses					
Salaries	\$ 498,724	\$ 477,764	\$ (20,960)	\$ 595,009	\$ 96,285
Payroll Taxes	22,610	23,574	964	23,428	818
Benefits	573,737	248,832	(324,905)	53,611	(520,126)
Retirement Costs	41,348	43,018	1,670	42,721	1,373
Total Personnel Expenses	<u>\$ 1,136,419</u>	<u>\$ 793,188</u>	<u>\$ (343,231)</u>	<u>\$ 714,769</u>	<u>\$ (421,650)</u>
Meeting Expenses					
Meetings	\$ 5,000	\$ 1,500	\$ (3,500)	\$ 2,000	\$ (3,000)
Travel	21,000	10,897	(10,103)	12,500	(8,500)
Conference Calls	600	600	-	1,000	400
Total Meeting Expenses	<u>\$ 26,600</u>	<u>\$ 12,997</u>	<u>\$ (13,603)</u>	<u>\$ 15,500</u>	<u>\$ (11,100)</u>
Operating Expenses					
Consultants & Contracts	\$ 288,500	\$ 291,021	\$ 2,521	\$ 257,500	\$ (31,000)
Office Rent	-	-	-	-	-
Office Costs	42,500	17,687	(24,813)	16,500	(26,000)
Professional Services	23,278	23,278	-	80,280	57,002
Miscellaneous	10,500	10,500	-	25,500	15,000
Depreciation	-	3,867	3,867	-	-
Total Operating Expenses	<u>\$ 364,778</u>	<u>\$ 346,353</u>	<u>\$ (18,425)</u>	<u>\$ 379,780</u>	<u>\$ 15,002</u>
Total Direct Expenses	<u>\$ 1,527,797</u>	<u>\$ 1,152,538</u>	<u>\$ (375,259)</u>	<u>\$ 1,110,049</u>	<u>\$ (417,748)</u>
Indirect Expenses	<u>\$ (1,527,797)</u>	<u>\$ (1,152,538)</u>	<u>\$ 375,259</u>	<u>\$ (1,110,049)</u>	<u>\$ 417,748</u>
Other Non-Operating Expenses	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Total Expenses (B)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (0)</u>	<u>\$ -</u>	<u>\$ -</u>
Change in Assets	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 0</u>	<u>\$ -</u>	<u>\$ -</u>
Fixed Assets					
Depreciation	-	(3,867)	(3,867)	-	-
Computer & Software CapEx	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	\$ -	\$ 3,867	\$ 3,867	-	-
Inc(Dec) in Fixed Assets (C)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
TOTAL BUDGET (=B + C)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (0)</u>	<u>\$ -</u>	<u>\$ -</u>
FTEs	<u>3.00</u>	<u>3.00</u>	<u>-</u>	<u>2.88</u>	<u>(0.12)</u>

Finance and Accounting

Accounting and Finance (in whole dollars)			
	2013 Budget	2014 Budget	Increase (Decrease)
Total FTEs	11.00	12.48	1.48
Total Direct Expenses	\$ 2,201,294	\$ 2,856,413	\$ 655,119
Inc(Dec) in Fixed Assets	\$ (798)	\$ -	\$ 798

Background and Scope

NERC's Finance and Accounting department manages all finance and accounting functions, including employee payroll, 401(k) and 457(b) plans, travel and expense reporting, monthly financial reporting, sales and use tax, meeting/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, meeting, 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

With the exception of converting a contractor providing office support services to a full time employee, no new FTE additions are planned for 2014. The increase of 1.48 FTEs reflects 2013 additions and the assumption of 4% attrition.

Contractor Expenses

\$475k is budgeted for outside contractor and consulting support, representing an increase of \$100k over the 2013 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.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2013 Budget & Projection, and 2014 Budget					
FINANCE and ACCOUNTING					
	2013 Budget	2013 Projection	Variance 2013 Projection v 2013 Budget Over(Under)	2014 Budget	Variance 2014 Budget v 2013 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalty Sanctions	-	-	-	-	-
Total NERC Funding	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Funding (A)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Expenses					
Personnel Expenses					
Salaries	\$ 1,230,355	\$ 1,340,908	\$ 110,553	\$ 1,490,011	\$ 259,656
Payroll Taxes	70,460	72,958	2,498	87,629	17,169
Benefits	149,964	140,872	(9,092)	250,930	100,966
Retirement Costs	140,368	130,996	(9,372)	167,843	27,475
Total Personnel Expenses	<u>\$ 1,591,146</u>	<u>\$ 1,685,734</u>	<u>\$ 94,587</u>	<u>\$ 1,996,413</u>	<u>\$ 405,266</u>
Meeting Expenses					
Meetings	\$ 5,000	\$ 5,000	\$ -	\$ 10,000	\$ 5,000
Travel	62,500	62,500	-	60,000	(2,500)
Conference Calls	1,850	5,000	3,150	5,000	3,150
Total Meeting Expenses	<u>\$ 69,350</u>	<u>\$ 72,500</u>	<u>\$ 3,150</u>	<u>\$ 75,000</u>	<u>\$ 5,650</u>
Operating Expenses					
Consultants & Contracts	\$ 325,000	\$ 517,822	\$ 192,822	\$ 475,000	\$ 150,000
Office Rent	-	-	-	-	-
Office Costs	28,500	30,062	1,562	29,500	1,000
Professional Services	186,000	232,662	46,662	280,000	94,000
Miscellaneous	500	500	-	500	-
Depreciation	798	2,196	1,398	-	(798)
Total Operating Expenses	<u>\$ 540,798</u>	<u>\$ 783,242</u>	<u>\$ 242,444</u>	<u>\$ 785,000</u>	<u>\$ 244,202</u>
Total Direct Expenses	<u>\$ 2,201,294</u>	<u>\$ 2,541,476</u>	<u>\$ 340,181</u>	<u>\$ 2,856,413</u>	<u>\$ 655,118</u>
Indirect Expenses	<u>\$ (2,201,294)</u>	<u>\$ (2,541,476)</u>	<u>\$ (340,182)</u>	<u>\$ (2,856,413)</u>	<u>\$ (655,119)</u>
Other Non-Operating Expenses	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Total Expenses (B)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (2)</u>	<u>\$ -</u>	<u>\$ (2)</u>
Change in Assets	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 2</u>	<u>\$ -</u>	<u>\$ 2</u>
Fixed Assets					
Depreciation	(798)	(2,196)	(1,398)	-	798
Computer & Software CapEx	-	2,495	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	\$ 798	\$ (299)	\$ (1,097)	-	(798)
Inc(Dec) in Fixed Assets (C)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (2,495)</u>	<u>\$ -</u>	<u>\$ -</u>
TOTAL BUDGET (=B + C)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (2,497)</u>	<u>\$ -</u>	<u>\$ (2)</u>
FTEs	11.00	11.02	0.02	12.48	1.48

Section B — Supplemental Financial Information

Reserve Balance

Table B-1

Working Capital and Operating Reserve Analysis					
Statutory					
	Total Reserves	Working Capital	Known Contingencies	Unknown Contingencies	Operator Certification
Beginning Balance					
Balance as of 12/31/12 - per audit	8,167,396		1,000,000	5,601,434	1,565,962
Release of penalty funding from restriction	2,512,500			2,512,500	
Less: Adjustment for future liabilities	(3,667,844)			(3,667,844)	
Available Working Capital and Operating Reserves	7,012,052	-	1,000,000	4,446,090	1,565,962
Generation or (Use) from 2013 Operations					
From budgeted operations	(1,027,935)			(658,777)	(369,158)
From operations not specifically budgeted or budgeted as a Known Contingency	(2,493,838)		(2,184,601)	(309,237)	
Proceeds from financing activities	843,000			843,000	
Projected Working Capital and Operating Reserves - 12/31/13	4,333,279	-	(1,184,601)	4,321,076	1,196,804
Desired Working Capital and Operating Reserves - 12/31/13 ¹	2,741,267		1,000,000	1,000,000	741,267
Adjustment to achieve desired reserve balance	(1,592,012)		2,184,601	(3,321,076)	(455,537)
Less: reduction of reserve balance offsetting future liabilities	-		-	-	-
Increase(decrease) in funding requirement to adjust reserve balance	(1,592,012)	-	2,184,601	(3,321,076)	(455,537)
2014 Expenses and Capital Expenditures	58,357,745			56,881,768	1,475,977
Less: Penalty Sanctions received 7/1/12 - 6/30/13	(290,000)			(290,000)	
Less: Other Funding Sources	(2,044,000)			(1,023,560)	(1,020,440)
Adjustment to achieve desired reserve balance	(1,592,012)		2,184,601	(3,321,076)	(455,537)
Less: Proceeds from financing activities	(1,415,990)				
Plus: debt service					
2014 NERC Assessment	53,015,743				

¹ On August 16, 2012, the NERC Board of Trustees approved the Working Capital and Operating Reserve Policy set forth herein.

Breakdown by Statement of Activity Sections

The following detailed schedules are in support of the consolidated Statement of Activities. All significant variances have been disclosed by program area in the preceding pages.

Penalty Sanctions

Penalty monies received prior to June 30, 2013 are to be used to offset assessments in the 2014 Budget, as documented in the NERC Policy – Accounting, Financial Statement and Budgetary Treatment of Penalties Imposed and Received for Violations of Reliability Standard, as well as Section 1107 of the Rules of Procedure. Penalty monies received from July 1, 2013 through June 30, 2014 will be used to offset assessments in the 2015 Budget.

All penalties received prior to June 30, 2013 are detailed below, including the amount and date received.

Allocation Method

Penalty sanctions received have been allocated to the following statutory programs to reduce assessments: Reliability Standards; Compliance Operations and Organization Registration and Certification; Compliance Enforcement; Reliability Assessments and Performance Analysis; Training and Education; Situational Awareness; Events Analysis and Investigations; and the Critical Infrastructure Department. 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 Received On or Prior to June 30, 2013		
	Date Received	Amount Received
	2/7/2013	\$ 250,000
	5/28/2013	40,000
Total Penalties Received		<u>\$ 290,000</u>

Supplemental Funding

Table B-3

Outside Funding Breakdown By Program (Excluding Penalty Sanction)	Budget 2013	Projection 2013	Budget 2014	Variance 2014 Budget v 2013 Budget
Reliability Standards				
Workshops	\$ 104,000	\$ 104,000	\$ 104,000	\$ -
Interest Allocation	3,970	4,164	3,961	(9)
Total	\$ 107,970	\$ 108,164	\$ 107,961	\$ (9)
Compliance Operations, Investigations and Enforcement				
Workshops	\$ 40,000	\$ 40,000	\$ 40,000	\$ -
Interest Allocation	6,742	6,481	6,308	(434)
Total	\$ 46,742	\$ 46,481	\$ 46,308	\$ (434)
Reliability Assessments and Performance Analysis				
pc_GAR Software	\$ -	\$ 29,000	\$ 50,000	\$ 50,000
GADS Services	-	-	-	-
Workshops	40,000	40,000	40,000	-
Interest Allocation	2,809	2,779	2,902	93
Total	\$ 42,809	\$ 71,779	\$ 92,902	\$ 50,093
Training and Education				
Testing Fees and Certificate Renewals	\$ 1,080,000	\$ 1,080,000	\$ 1,020,000	\$ (60,000)
CEH Fees	600,000	600,000	600,000	-
Workshops	-	-	-	-
Interest Allocation	1,199	1,261	1,247	48
Total	\$ 1,681,199	\$ 1,681,261	\$ 1,621,247	\$ (59,952)
Event Analysis				
Workshops	\$ 52,000	\$ 52,000	\$ 50,000	\$ (2,000)
Interest Allocation	1,423	1,491	1,467	44
Total	\$ 53,423	\$ 53,491	\$ 51,467	\$ (1,956)
Situation Awareness				
Workshops	\$ 105,000	\$ 105,000	\$ 75,000	\$ (30,000)
FIST Royalties	-	1,909	-	-
Interest Allocation	974	857	953	(20)
Total	\$ 105,974	\$ 107,766	\$ 75,953	\$ (30,020)
Critical Infrastructure Protection				
Workshops	\$ 95,000	\$ 95,000	\$ 45,000	\$ (50,000)
Interest Allocation	2,884	2,968	3,163	279
Total	\$ 97,884	\$ 97,968	\$ 48,163	\$ (49,721)
General and Administrative				
Miscellaneous Income	\$ -	\$ 224	\$ -	\$ -
Total	\$ -	\$ 224	\$ -	\$ -
Total Outside Funding	\$ 2,136,000	\$ 2,167,133	\$ 2,044,000	\$ (92,000)

Personnel Expenses

Table B-4

Personnel Expenses	Budget 2013	Projection 2013	Budget 2014	Variance 2014 Budget v 2013 Budget	Variance %
Total Salaries	\$ 24,056,165	\$ 24,952,681	\$ 26,415,679	\$ 2,359,514	9.8%
Total Payroll Taxes	1,459,710	1,487,811	1,582,500	122,790	8.4%
Total Benefits	3,079,941	2,914,343	3,555,737	475,796	15.4%
Total Retirement	2,702,588	2,312,509	2,906,506	203,918	7.5%
Total Personnel Costs	\$ 31,298,404	\$ 31,667,344	\$ 34,460,422	\$ 3,162,018	10.1%
FTEs	186.25	182.24	190.03	3.78	2.0%
Cost per FTE					
Salaries	\$ 129,161	\$ 136,922	\$ 139,008	9,847	7.6%
Payroll Taxes	7,837	8,164	8,328	490	6.3%
Benefits	16,537	15,992	18,711	2,175	13.2%
Retirement	14,511	12,689	15,295	784	5.4%
Total Cost per FTE	\$ 168,045	\$ 173,767	\$ 181,342	\$ 13,297	7.9%

Consultants and Contracts

Table B-5

NOTE: This table has been replaced by Exhibit C

Office Rent

Table B-6

Rent	Budget 2013	Projection 2013	Budget 2014	Variance 2014 Budget v 2013 Budget	Variance %
Office Rent	\$ 2,756,840	\$ 2,695,217	\$ 2,617,300	\$ (139,540)	-5.06%
Total Office Rent	\$ 2,756,840	\$ 2,695,217	\$ 2,617,300	\$ (139,540)	-5.06%

Office Costs

Table B-7

Office Costs	Budget 2013	Projection 2013	Budget 2014	Variance 2014 Budget v 2013 Budget	Variance %
Telephone	\$ 527,000	\$ 627,470	\$ 628,000	\$ 101,000	19.17%
Telephone Answering Srv	-	750	-	-	
Internet	354,000	366,805	310,000	(44,000)	-12.43%
Office Supplies	172,500	211,741	199,300	26,800	15.54%
Computer Supplies and Maintenance	-	-	-	-	
Computers	3,000	12,956	4,500	1,500	50.00%
Computer Supplies	116,900	119,316	95,400	(21,500)	-18.39%
Maintenance & Service Agreements	1,404,265	1,351,040	1,701,029	296,764	21.13%
Software	38,500	32,134	141,500	103,000	267.53%
Network Supplies	-	10,471	-	-	
Publications & Subscriptions	73,000	82,303	32,995	(40,005)	-54.80%
Dues	42,750	39,998	41,750	(1,000)	-2.34%
Postage	20,100	17,160	19,600	(500)	-2.49%
Express Shipping	64,500	40,300	34,000	(30,500)	-47.29%
Copying	135,000	100,293	115,000	(20,000)	-14.81%
Reports	8,000	8,000	8,000	-	0.00%
Stationary/Forms	15,000	10,000	10,000	(5,000)	-33.33%
Equipment Repair/Service Contracts	30,000	73,776	70,000	40,000	133.33%
Bank Charges	25,000	20,000	20,000	(5,000)	-20.00%
Taxes	50,000	9,078	15,000	(35,000)	-70.00%
Merchant Card Fees	102,000	77,471	85,000	(17,000)	-16.67%
Total Office Costs	\$ 3,181,515	\$ 3,211,063	\$ 3,531,074	\$ 349,559	10.99%

Professional Services

Table B-8

Professional Services	Budget 2013	Projection 2013	Budget 2014	Variance 2014 Budget v 2013 Budget	Variance %
Independent Trustee Fees	\$ 980,000	\$ 980,000	\$ 980,000	\$ -	0.00%
Trustee Search Fee	-	-	-	-	
Outside Legal	900,000	900,000	830,000	(70,000)	-7.78%
Lobbying Fees	50,000	50,000	50,000	-	0.00%
Accounting & Auditing Fees	242,278	242,278	150,000	(92,278)	-38.09%
Insurance Commercial	110,000	110,000	100,000	(10,000)	-9.09%
Outside Services		56,815	180,280		
Total Services	\$ 2,282,278	\$ 2,339,093	\$ 2,290,280	\$ (172,278)	0.35%

Miscellaneous**Table B-9**

Miscellaneous Expenses	Budget 2013	Projection 2013	Budget 2014	Variance 2014 Budget v 2013 Budget	Variance %
Miscellaneous Expense	\$ 6,500	\$ 5,405	\$ 6,500	\$ -	
Employee Rewards and Recognition	\$ 10,000	10,000	10,000	-	0.00%
Community Resp & Employee Engagement	5,000	5,000	10,000	5,000	100.00%
Year-end Holiday Catering			10,000	10,000	
Total Miscellaneous Expenses	\$ 21,500	\$ 20,405	\$ 36,500	\$ 15,000	69.77%

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

Other Non-Operating Expenses	2013	Projection 2013	Budget 2014	Variance 2014 Budget v 2013 Budget	Variance %
Gain/Loss from Sale of Assets	\$ -	\$ -	\$ -	\$ -	
Property Tax Expense	\$ 50,000	50,000	\$ 50,000	-	
Office Relocation	-		-	-	
Interest			94,000	94,000	
Total Other Non-Operating Expenses	\$ 50,000	\$ 50,000	\$ 144,000	\$ 94,000	188.00%

Section C — Non-Statutory Activity

NERC has no non-statutory activities.

Section D – Supplemental Financial Statements

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION
STATEMENT OF FINANCIAL POSITION

	12/31/2012 - per Audit	12/31/2013 - Projection	12/31/2014 - Projection	12/31/2015 - Projection	12/31/2016 - Projection
ASSETS					
Cash	27,936,696	17,440,807	15,522,200	14,874,122	14,045,310
Trade Accounts receivable, net of allowance for uncollectible accounts of 62,573 and 179,565 in 2012 and 2011	4,281,602	4,281,602	4,281,602	4,281,602	4,281,602
Other Receivables		-	-	-	-
Prepaid expenses and other current assets	888,087	888,087	888,087	888,087	888,087
Security deposit	114,903	99,136	99,136	99,136	99,136
Cash value of insurance policies	337,414	337,414	337,414	337,414	337,414
Employee Fiduciary - 457b	118,243	118,243	118,243	118,243	118,243
Property and equipment	5,220,210	6,609,198	7,393,982	10,831,776	11,783,571
Total Assets	38,897,155	29,774,487	28,640,663	31,430,380	31,553,363
LIABILITIES AND NET ASSETS					
Liabilities					
Accounts payable and accrued expenses (incl. vacation accrual)	2,959,896	2,959,896	2,959,896	2,959,896	2,959,896
Accrued Incentive Comp	2,911,359	3,817,704	3,792,317	3,792,317	3,792,317
Deferred income	5,177,751	5,177,751	5,177,751	5,177,751	5,177,751
Regional assessments	9,614,829	-	-	-	-
Deferred rent-current	120,801	182,421	250,276	319,931	386,279
Deferred compensation (Def. comp; 457b; retiree medical)	736,019	736,019	736,019	736,019	736,019
Accrued retirement liabilities	1,410,466	1,337,389	1,640,591	1,640,591	1,640,591
Capital lease obligations - current	65,928	65,928	65,928	65,928	65,928
PNC Loan - Current Portion		422,000	894,000	1,910,000	1,889,000
Deferred rent - non-current	3,620,736	3,819,947	3,569,671	3,249,740	2,863,461
Capital lease obligations - non-current	47,108	47,108	47,108	47,108	47,108
PNC Loan - non-current		843,000	1,365,000	2,505,000	1,816,000
Total Liabilities	26,664,893	19,409,163	20,498,557	22,404,281	21,374,350
Net Assets - unrestricted	9,719,762	10,075,324	8,142,106	9,026,099	10,179,013
Net Assets - restricted	2,512,500	290,000	-	-	-
Total Liabilities and Net Assets	38,897,155	29,774,487	28,640,663	31,430,380	31,553,363

Statement of Activities

Next page.

NORTH AMERICAN ELECTRIC RELIABILITY COPORATION

Statement of Activities, Fixed Asset Expenditures and Change in Working Capital by Program 2014 Budget	Statutory Activities														
	Statutory Total	Reliability Standards (Section 300)	Compliance Operations, Investigations and Organization Registration and Certification	Compliance Enforcement	Reliability Assessment and Performance Analysis	Operator Certification	Training and Continuing Education	Event Analysis	Situation Awareness and Infrastructure Security	Critical Infrastructure Protection	General and Administrative (Includes Executive and Gov't Relations)	Legal and Regulatory	Information Technology	Human Resources	Accounting and Finance
Funding															
ERO Funding															
NERC Assessments	53,015,743	10,127,981	9,577,256	6,493,392	8,944,102		1,697,796	4,114,272	4,641,358	9,972,051	(2,552,465)	-	-	-	-
Penalty Sanctions	290,000	58,720	52,196	41,322	43,021		11,962	21,748	14,136	46,895		-	-	-	-
Total NERC Funding	53,305,743	10,186,702	9,629,452	6,534,713	8,987,123		1,709,758	4,136,021	4,655,494	10,018,946	(2,552,465)	-	-	-	-
Membership Dues	-														
Testing Fees	1,620,000					1,020,000	600,000								
Services & Software	50,000				50,000										
Workshops	354,000	104,000	40,000		40,000			50,000	75,000	45,000					
Interest	20,000	3,961	3,521	2,787	2,902	440	807	1,467	953	3,163					
Miscellaneous															
Total Funding (A)	55,349,743	10,294,662	9,672,973	6,537,500	9,080,025	1,020,440	2,310,565	4,187,488	4,731,448	10,067,108	(2,552,465)	-	-	-	-
Expenses															
Personnel Expenses															
Salaries	26,415,679	3,308,688	3,192,809	2,043,427	2,604,058	243,369	562,747	1,470,290	915,216	3,307,057	2,031,740	2,637,399	2,013,859	595,009	1,490,011
Payroll Taxes	1,582,500	210,130	202,068	132,855	159,156	17,411	39,508	91,480	60,207	196,294	89,250	136,718	136,366	23,428	87,629
Benefits	3,555,737	482,501	428,890	339,538	344,217	53,611	98,307	178,744	125,093	385,331	196,574	282,017	336,373	53,611	250,930
Retirement Costs	2,906,506	377,588	364,901	234,210	294,179	28,185	63,655	167,286	104,293	376,441	158,550	296,887	229,767	42,721	167,843
Total Personnel Expenses	34,460,422	4,378,907	4,188,668	2,750,030	3,401,610	342,576	764,217	1,907,800	1,204,809	4,265,123	2,476,114	3,353,021	2,716,365	714,769	1,996,413
Meeting Expenses															
Meetings	1,136,500	185,000	70,000	2,500	90,000	21,000	15,000	67,000	171,000	145,000	348,000	5,000	5,000	2,000	10,000
Travel	2,617,500	425,000	367,500	120,000	410,000	21,000	30,000	175,000	30,000	330,000	452,000	124,500	60,000	12,500	60,000
Conference Calls	233,500	75,000	4,000	6,500	35,000		27,000	20,000	5,000	25,000	21,500	3,500	5,000	1,000	5,000
Total Meeting Expenses	3,987,500	685,000	441,500	129,000	535,000	42,000	72,000	262,000	206,000	500,000	821,500	133,000	70,000	15,500	75,000
Operating Expenses															
Consultants & Contracts	8,172,879		400,000		1,238,085	473,000	375,830	75,000	1,389,014	1,110,450	175,000		2,204,000	257,500	475,000
Office Rent	2,617,300										2,617,300				
Office Costs	3,531,074	90,350	73,500	41,000	139,135	47,300	51,000	38,519	47,750	86,250	502,000	63,500	2,304,770	16,500	29,500
Professional Services	2,290,280										1,080,000	850,000		80,280	280,000
Miscellaneous	36,500	500	500	500	500		500	500	500	500	5,500	500	500	25,500	500
Depreciation	2,333,006				228,000			193,667	161,498		419,399		1,330,443		
Total Operating Expenses	18,981,039	90,850	474,000	41,500	1,605,720	520,300	427,330	307,686	1,598,762	1,197,200	4,799,199	914,000	5,839,713	379,780	785,000
Total Direct Expenses	57,428,961	5,154,757	5,104,168	2,920,530	5,542,330	904,876	1,263,547	2,477,486	3,009,571	5,962,323	8,096,813	4,400,021	8,626,078	1,110,049	2,856,413
Indirect Expenses															
	-	4,996,937	4,441,722	3,516,363	3,660,950	555,215	1,017,895	1,850,717	1,202,966	3,990,609	(8,240,813)	(4,400,021)	(8,626,078)	(1,110,049)	(2,856,413)
Other Non-Operating Expenses	144,000	-	-	-	-	-	-	-	-	-	144,000				
Total Expenses (B)	57,572,961	10,151,694	9,545,890	6,436,893	9,203,280	1,460,091	2,281,442	4,328,203	4,212,537	9,952,932	-	-	-	-	-
Change in Assets	(2,223,218)	142,968	127,083	100,607	(123,256)	(439,651)	29,123	(140,715)	518,911	114,176	(2,552,465)	-	-	-	-
Fixed Assets															
Depreciation	(2,333,006)	-	-	-	(228,000)	-	-	(193,667)	(161,498)	-	(419,399)	-	(1,330,443)	-	-
Computer & Software CapEx	2,904,790								645,990				2,258,800		
Furniture & Fixtures CapEx	-														
Equipment CapEx	213,000												213,000		
Leasehold Improvements	-														
Allocation of Fixed Assets	-	142,968	127,083	100,607	104,744	15,885	29,123	52,951	34,418	114,176	419,399	-	(1,141,357)	-	-
Inc(Dec) in Fixed Assets (C)	784,784	142,968	127,083	100,607	(123,256)	15,885	29,123	(140,715)	518,911	114,176	-	-	-	-	-
TOTAL BUDGET (=B + C)	58,357,745	10,294,662	9,672,973	6,537,500	9,080,025	1,475,977	2,310,565	4,187,488	4,731,448	10,067,108	-	-	-	-	-
FTEs	190.03	25.92	23.04	18.24	18.99	2.88	5.28	9.60	6.24	20.70	10.56	15.15	18.07	2.88	12.48

Exhibit A – Common Assumptions

Draft

Shared Business Plan and Budget Assumptions

NERC and the Regional Entities

2014-2016 Planning Period

As part of the implementation of the Strategic Plan [[ERO 2013-2016 Strategic Plan](#)], NERC and the Regional Entities developed a set of common assumptions to help guide resource projections over the planning period for each entity and the ERO overall, recognizing there are often unique factors that drive differences in each organization's final determination of its resource needs and budget. The specific resource needs and budget of NERC and each Regional Entity will continue to be publicly posted for review and approved in open session by NERC's Finance and Audit Committee as part of the annual business plan and budget process.

It continues to be the objective of NERC and the Regional Entities to identify and implement process and other improvements to increase the overall efficiency and effectiveness of the ERO, with due recognition and sensitivity to the cost of compliance by industry and the critical nature of industry support and participation to the success of the ERO regulatory model as contemplated by the Energy Policy Act of 2005. In addition, NERC and the Regional Entities have reviewed the existing scope of the program areas and re-prioritized current resources as appropriate. Efforts have been made to focus on assumptions affecting resource requirements versus specific program area goals, objectives and actions which are incorporated in the Strategic Plan and each Entities' business plan and budget.

Legal and Operating Framework

NERC and the Regional Entities are expected to 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 and Canada, as well as the authorizations contained in FERC's order approving NERC as the ERO. No significant changes to this framework are assumed to occur over the planning period.

The terms of the existing delegation agreements between NERC and the Regional Entities are also assumed to continue to apply over the planning period. With respect to the performance of delegated functions, the Regional Entities are expected to have the primary responsibility for interactions with registered entities. NERC will provide oversight of the Regional Entities and otherwise ensure that its responsibilities as the ERO are fulfilled. Over the planning period, NERC and the Regional Entities are also expected to refine and revise procedures to eliminate duplication, increase operational efficiencies, enhance ERO-wide consistency, and achieve measurable reliability outcomes, consistent with their respective roles and responsibilities.

NERC will evaluate the scope of its activities in relation to the FERC approved Section 215 guidelines in connection with the development of its annual business plan and budget. NERC will also evaluate the extent to which it will undertake activities within these guidelines and may voluntarily defer or elect to not undertake certain activities in light of resource limitations and priorities. NERC may also voluntarily consider funding alternatives for certain Section 215 activities.

Business Environment

NERC and the Regional Entities will work collaboratively to identify additional ways to improve efficiency and leverage overall ERO resources, as well as to gather and evaluate information regarding the impact of ERO activities on registered entities. Industry concerns relative to the overall cost of compliance with ERO requirements will remain an area of focus.

Cost pressures may affect stakeholder resources available to participate in NERC and Regional Entity activities. NERC and the Regional Entities business plans, budgets, and resource requirements will continue to be established based upon the assumption of continued industry participation in support of key program areas, including but not limited to event analysis, reliability assessments, and standards development. Any significant change in the quality or availability of industry resources will likely affect ERO resource requirements.

General

External factors will continue to affect both resource needs and allocation. These factors will likely include, but not be limited to:

- FERC orders, directives, notice of proposed rulemaking, audits, and performance assessment
- Availability of experienced workforce
- The timing and scope of BES exception implementation
- Number and severity of violations and system events
- Assessment of the impact of new technologies
- Proposed and actual changes in applicable laws and regulations, including environmental and others
- Transformation of NERC's standards to high quality, results-based steady state
- Resources required to complete and implement any recommendations included in or FERC directives issued in connection with the 5-Year ERO Performance Assessment

Leveraging the activities of the transmission, generator and other forums are expected to increasingly complement ERO activities and place downward pressure on the need to add incremental resources which might otherwise be required in the absence of these forums.

NERC and the Regional Entities expect gains in efficiency, year-upon-year, as programs and initiatives mature, experience is gained, standard development and execution is improved, and internal process and performance improvements are achieved.

Key Assumptions by Program Area

Reliability Standards Program

1. With the filing of the Critical Infrastructure Protection (CIP) Version 5 standards, and the need for a smooth transition between Version 3 to Version 5, additional resources may be required to provide industry and regional guidance. These commitments are expected to be largely off-set with increased efficiencies and effectiveness of the standards development process.
2. For planning purposes, given the current industry approved implementation plan, NERC and the Regional Entities are assuming implementation start date of CIP Version 5 of January 2016. If directed to accelerate the implementation date, NERC and the Regions will direct appropriate resources from existing staff.
3. Staffing resources required for standards activities at NERC, are expected to be flat during the planning period; if minor resource additions are required, they will be offset by operating efficiencies in other areas.
4. Experience has shown that increased project management discipline is necessary to satisfy standards development project goals and priorities, including the assurance of a requisite level of quality. This includes recruiting Standard Developers with the appropriate skill set needed to bring project management discipline. Examples of efforts to increase project management discipline during the planning period include but are not necessarily limited to:
 - a. Specific timeframes for standards development and process milestones;
 - b. Increased industry resource dedication over shorter periods; and
 - c. Clear criteria for cancellation of projects not yielding timely and high-quality results.
5. NERC will need to allocate additional resources to support the transformation of standards to a steady-state, improvements in the quality of standards development, and industry guidance, including related technical conference and training activities.
6. Expected significant increases in standards development and processing may create additional resource needs to review and comment on proposed standards, support regulatory filings and oversee new standards as they become effective. However, incremental resource needs are expected to be offset by improvements in the efficiency of the standards development process.
7. Implementing a cost effectiveness analysis or assessment of proposed standards is likely to impact resource requirements, but the extent of the impact both at the ERO and regions cannot be fully assessed at this time.

8. The number of interpretation and guidance requests is expected to decrease over time, reflecting the initiative to transform the current standards to a body of high quality, results-based standards and improved execution of the standards development process.
9. The number of projects contained in the Reliability Standards Development Plan is expected to increase over the planning period reflecting the transformation of standards to a steady-state. However, the scope of these projects is expected to be somewhat narrower than would otherwise exist in the absence of the results-based standards initiative.
10. With NERC's improved execution and focus on results-based standards, the need for activity associated with regional standards development is expected to decrease, together with staffing resources supporting this area. Increased engagement by the regions with the ERO is expected to support the development of continent-wide standards
11. Improvements in the quality of standards drafting and implementation will result in improvements in the efficiency and effectiveness of auditing and enforcement activities towards the end of the planning period.
12. NERC will increase the quality and effectiveness of regulatory filings. Efforts will include, but not limited to:
 - a. Greater use of pre-filing meetings which will include opportunities for regional and stakeholder participation;
 - b. Increased dialogue with regulatory authorities regarding the form and requirements for regulatory filings, including reducing the requirement for exhibits by instead relying on publicly available documentation on NERC's website; and
 - c. Seeking engagement with regulatory authorities to obtain formal regulatory authority input during standards development.
 - d. With the support from the regions, more developed technical justifications to support filings.

Compliance Monitoring and Enforcement and Organization Registration and Certification Program

Compliance and Enforcement

1. NERC and Regional Entities will have sufficient staff, supervision, and technical specialists with adequate collective professional competence and other resources, as needed, to perform the compliance work and to meet expected time frames for completing the work.
2. Resources required for compliance and enforcement activities at NERC, are expected to increase slightly in support of the Reliability Assurance Initiative. When the initiative is matured, these resources will either be reduced or redirected to facilitate a more rigorous oversight and quality assurance model.

3. Staffing resources required for compliance and enforcement activities at the Regional Entities over the planning period will vary based on regional needs and circumstances, with any increases generally expected to be mitigated through operating efficiencies in other areas. The Reliability Assurance Initiative may create short-term incremental resource needs at both NERC and some Regional Entities as new procedures and tools are developed to implement revised compliance enforcement processes.
4. Results of implementation of the Find, Fix, Track and Report (“FFT”) process over the planning period will lead to continued refinement, improvement and prioritization of risk-based compliance monitoring efforts and a resultant reduction in registered entity resources focusing on lower level potential violations .
5. Changes in TFE processing, including equipment class-based exceptions, audit sampling, and elimination of much of the reporting and review burden, have been implemented to improve efficiency.
6. Improvements in consistency among the Regional Entities may facilitate more efficient resource allocation within the compliance and enforcement areas at NERC, as well as potentially reduce compliance costs for some registered entities.
7. Improvements in audit guidance may increase ERO efficiency, support improvements to resource allocation and help mitigate overall compliance costs.
8. Improvements in consistency among Regional Entities, and registered entities are expected from an improved centralized compliance, registration, analysis and tracking system. A significant multiyear investment will be required to develop and implement the system.
9. As risk-based monitoring activities increase, consideration will be given to modifying the current three (3) and six (6) year audit cycles for registered entities. As an outgrowth of RAI, the rigor, scope, depth and recurrence of audits and spot checks is expected to be driven by reliability risk, rather than a predetermined schedule. As standards are improved, the need for clarifying documents, such as interpretations, is expected to decrease. As a result of the foregoing, audit resources needs may vary year to year.
10. Consideration of existing registered entity management practices (i.e., internal controls) around Reliability Standards in the scope of of the compliance monitoring program will allow NERC and the Regional Entities to further prioritize activities.
11. Further auditing efficiencies can be achieved by continued refinement of auditing procedures focused on the purpose and intent of the requirements related to reliability risk. This will require a change in approach by the Regional Entities and NERC staff.

Organization Registration and Certification

1. Implementation of the BES definition may place additional resource demands in the Registration area but the significance cannot be fully assessed at this time. If a high number of BES exceptions are requested, the potential for a backlog situation in the first years of implementation is possible.

2. Identification of “gaps” in registration and corrections in registration.
3. Certification process will be revised to emphasize the technical capabilities of those conducting a certification evaluation.

Reliability Assessment and Performance Analysis Program

1. Implementation of a BES exception process will impact resources requirements in this program area, but the significance of the impact cannot be fully assessed at this time, as resource requirements will be driven by the number and type of exception requests received. It’s also expected that there will be resource impacts at the Regional Entity level.
2. ERO investments in new software applications and IT infrastructure will be needed to develop and implement improved data collection and analysis systems and capabilities and should improve overall ERO resource allocation and efficiency in the long term. (See Information Technology for assumptions regarding the role of NERC and the Regional Entities with respect to funding).
3. Resource impacts associated with the ERO’s reliability assessments of new technologies within the industry and environmental regulations are uncertain at this point.
4. Implementation of an outcome based approach to achieve measurable improvements in reliability will likely require allocation of resources to this program area, the significance of which from an overall budget perspective cannot be determined at this time.

Training, Education, and System Operator Certification Program

1. Both NERC and the Regional Entities agree that there are opportunities for improvements in the coordination, content and manner of internal training programs.
2. While additional or different resources will be required for certain training initiatives, it is not clear at this time whether these needs will translate into a significant increase in NERC’s or any of the Regional Entities’ budgets. The general sense at this point is that improvements with minimal budgetary impact can be achieved through better coordination, planning and management of training programs. The possible exception is in the area of additional resources need to support CEA staff auditor training, as further discussed below.
3. Implementation of auditor training associated with the Reliability Assurance Initiative process improvements may result in resource impacts; time period required to train auditors will depend on regional audit work plans and schedules.

Situation Awareness and Event Analysis

1. NERC will continue to review the appropriateness of continued funding of existing reliability tools, with any proposed changes thereto subject to review and input from the

Regional Entities, appropriate NERC committees and working groups, and other affected parties.

2. SAFNR will provide additional situational awareness capabilities at both NERC and Regional Entity levels. Significant additional resource investments are not anticipated to be necessary for the Regional Entities to utilize SAFNR. NERC will continue to budget and incur costs to operate and maintain SAFNR.
3. The number of “qualified system events²¹” as defined in the NERC Events Analysis Process, is expected to remain steady with an average of 10 per month reported. Greater collaboration with the Region and the registered entity is leading to more detailed analysis and supporting the identification of reliability issues and lessons learned. The number of “system occurrences” relates to events and disturbances that fall below the threshold of the categorized definitions in the NERC Events Analysis Process document and is expected to remain steady at approximately 25 per month.

Critical Infrastructure Protection

1. NERC will continue fund the Electricity Sector Information Sharing and Analysis Center (ES-ISAC).
2. On an annual basis, NERC will conduct the annual Grid Security Conference and rotate conference locations throughout the eight regions.
3. The Sufficiency Review Program (SRP) will expand to include transition issues associated with CIP-002-4 and CIP Version 5. In addition, each year, NERC will increase the number of SRP conducted.
4. NERC will continue to conduct and budget grid security exercises.
5. To address the changing policy environment, NERC will continue to manage policy-development and partnership activities with industry and the government.
6. NERC will need to allocate additional resources to support improvements in the quality of cybersecurity audit and guidance, including related training activities.
7. NERC will revise CIP RSAWS to provide greater flexibility and clarity on how to evaluate compliance with cybersecurity controls.
8. To improve the auditor’s ability to assess for compliance to CIP standards, NERC will evaluate and/or procure cybersecurity auditing tools.

Information Technology and Enterprise Applications

1. Significant investments will be required over the planning period to develop and implement program area and enterprise-wide processes, procedures and applications to support business needs, including auditing, compliance, registration and tracking

²¹ The phrase “qualified system events” refers to the ERO event analysis process categorization criteria (Category 1-5), Occurrence also include copper theft, substation intrusions and other occurrences on the bulk electric system which may be reported. The phrase “qualified system events” means events affecting the Bulk Electric System which meet the ERO event analysis process categorization criteria (Category 1-5).

systems and other project, data management and analysis tools to provide greater cost efficiency and uniformity across the ERO.

2. NERC and the Regional Entities will establish procedures to ensure that the potential enterprise-wide applicability of new applications supporting delegated functions is considered by the ERO EMG prior to decisions being made on investments in applications designed to support one entity's operations.
3. Ongoing investments will be required to develop, implement and maintain enhancements to the NERC and Regional Entity websites.
4. In accordance with its approved annual budgets, NERC will provide the funding for the development and maintenance of ERO Enterprise applications.

Finance and Administrative

1. Potential additional resource requirements may be required in connection with implementation of the ERO Risk Management framework. NERC will include funding in its 2014 budget for consultants to support this initiative.
2. NERC and the Regional Entities will work cooperatively to continue focusing on opportunities to improve the efficiency of travel, meeting, conference call and other operating expenses.
3. NERC and the Regional Entities will work to improve budgeting and forecasting capabilities.
4. NERC and the Regional Entities will work cooperatively to establish a common set of principles regarding the determination of working capital and contingency reserve requirements.

Exhibit B – Application of NERC Section 215 Criteria

DISCUSSION OF HOW THE NERC MAJOR ACTIVITIES IN THE 2014 BUSINESS PLAN AND BUDGET MEET THE NERC WRITTEN CRITERIA FOR DETERMINING WHETHER A RELIABILITY ACTIVITY IS ELIGIBLE TO BE FUNDED UNDER FEDERAL POWER ACT SECTION 215

I. Introduction

This Exhibit discusses how the major activities in NERC’s 2014 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.²² NERC submitted the written criteria to the Commission in a compliance filing dated February 21, 2013 in Docket No. FA11-21-000.²³ The Commission approved the NERC written criteria, with modifications, in an order issued in that docket on April 18, 2013.²⁴ The NERC written criteria as used in this Exhibit incorporate the modifications specified in the Compliance Order.²⁵

II. Reliability Standards Program 2014 Major Activities

The major activities of the Reliability Standards Program are described at pages 10 and 28-30 of the 2014 Business Plan and Budget. The principal activity areas for the Reliability Standards Program are (1) providing project management, leadership and technical assistance to standard development processes participants to deliver high quality, continent-wide standards; (2) facilitating continent-wide industry engagement in the standard development processes; and (3) conducting industry balloting on standards, disseminating information on standards and the standard development processes, and supporting regulatory filings and proceedings relating to standards. Additionally, the Reliability Standards Program provides technical advice and quality review for Regional Entity Standards development processes, presents proposed Regional

²² *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.

²³ *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”).

²⁴ *North American Electric Reliability Corporation, Order on Compliance*, 143 FERC ¶ 61,052 (2013) (“Compliance Order”).

²⁵ 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.

standards to the NERC Board, and develops and supports regulatory filings for approval of regional standards.

For 2014, the Reliability Standards Program will be focused on three areas: (1) transforming the NERC standards to high quality, world-class results-based standards (ensuring that standards are focused on required actions or results and not necessarily on the methods by which to accomplish those actions or results); developing a bulk power system (“BPS”) reliability risk profile; and (3) developing methods to assess and manage cost-effectiveness (benefit) of new standards. Specific ongoing and new major activities for the Reliability Standards Program for 2014 include: continuing to address regulatory obligations for standards development and revisions as specified in regulatory directives; completing standards revisions related to the Phase 2, Paragraph 81 requirements; supporting the NERC three-year Reliability Standards Development Plan; integrating the plan from the 2013 Standards Independent Expert Review Panel into the Reliability Standards Development Plan; increasing coordination with the NERC Compliance Monitoring and Enforcement Program in integrating compliance considerations into standards development; accelerating delivery of the number of standards that meet the quality criteria and the results-based construct; developing a BPS reliability risk profile to evaluate existing standards and continuing the prioritized development of risk-based standards focused on key reliability outcomes; facilitating the industry’s transition to Version 5 of the Critical Infrastructure Protection (“CIP”) standards, including minimizing an unintended surge in violations when the Version 5 CIP standards go into effect; developing methods to assess and manage the cost effectiveness (benefit) of new standards; and continuing to support alignment between standards development and the Reliability Issues Steering Committee (“RISC”) priorities.

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.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.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.

IV: 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.)

III. Compliance Monitoring and Enforcement and Organization Registration and Certification Program 2014 Major Activities

The major activities of the Compliance Monitoring and Enforcement and Organization Registration and Certification Program are described at pages 11, 20-21, 33-38 and 41-43 of the 2014 Business Plan and Budget. The Compliance Operations department of this program works with the Regional Entities to ensure consistent and effective implementation of the Compliance Monitoring and Enforcement Program (“CMEP”). This department is responsible for the major activities of consistent implementation of the risk-based compliance monitoring program, including organization registration and certification, for reliability improvements; developing and presenting education programs that support industry compliance and the integration of risk assessment and internal controls; development of minimum baseline monitoring requirements; oversight of the Regional Entities’ delegated compliance functions including CMEP planning, implementation and reporting, compliance operations and coordination, and auditor training; development and maintenance of the Reliability Standards Audit Worksheets; and support for the NERC Compliance and Certification Committee. The Compliance Enforcement department of this program is responsible for overseeing enforcement processes, application of penalties or sanctions, and activities to mitigate and prevent recurrence of remediated issues or confirmed violations of reliability standards; the department executes these responsibilities through the following major activities: monitoring Regional Entities’ enforcement processes to ensure due process, identify best practices and process efficiency opportunities, and promote consistency among Regional Entities’ business practices; collecting and analyzing compliance enforcement and violation data and trends to assist with identification of emerging risks and help inform the development of enforcement policy and processes; filing notices of penalty (“NOPs”) and other submittals associated with violations discovered through Regional Entity compliance, monitoring and enforcement activities; processing and filing NOPs and other submittals associated with violations discovered through NERC-led investigations and audits; and docketing possible violations coming into the NERC enforcement program.

The ongoing and new major activities of the Compliance Monitoring and Enforcement and Organization Registration and Certification Program for 2014 include: continuing to improve enforcement processing efficiency, including steps to ensure the sustainability and expandability of the Find, Fix, Track and Report (“FFT”) process; finalizing and implementing the Reliability Assurance Initiative (“RAI”) enforcement strategy and delivering on its 2014 milestones; focusing on achieving better consistency in regional enforcement outcomes; continuing Registered Entity mapping activities to ensure that registry gaps and duplicative registration and compliance monitoring are avoided; continuing to work to ensure Registered Entities understand their compliance obligations and how compliance will be assessed; completing the functional model review and registration needs assessment, including developing a common and consistent registration approach among Regional Entities and developing recommendations to modify registration and certification processes based on risks to the BPS; completing implementation of the Bulk Electric System (“BES”) definition Phase II exception process; reducing unnecessary compliance documentation while working to ensure Registered

Entities are monitored in a cost effective manner; continuously assessing the Actively Monitored [standards] List based on reliability trends, risks and historical information to ensure that the compliance focus remains on the most critical reliability standards; developing highly qualified and trained auditor, investigator and enforcement staffs; developing training resources for the Electric Reliability Organization (“ERO”) and industry, including materials relating to the RAI; providing early and ongoing input into the standard development process; providing ongoing oversight of Regional Entity compliance and enforcement activities; developing metrics and incentives to improve trends in the mitigation aging curve; continuing to identify the causes and trends of violations in enforcement cases; and continuing to work to reduce the outstanding violations caseload and increasing processing efficiency for violations.

Major activities for 2014 specifically relating to the RAI will include: identifying and implementing process improvements to the self-reporting process; implementing FFT process enhancements; developing an auditor handbook and checklist for use by compliance auditors; and initiating small prototype and pilot programs focused on developing Registered Entity risk assessments and developing processes for evaluating and testing Registered Entity internal controls. Additionally, the following major activities will be conducted in 2014 to build upon the framework developed through RAI activities in 2013: developing a training program to support implementation of the common audit procedures developed in 2013; assessment of the existing NERC compliance, reporting, analysis tracking system and other compliance tools to support RAI activities; and developing prototypes and pilot programs to support the development of Registered Entity reliability risk assessments and compliance monitoring scoping projects.

The major activities of the Compliance Monitoring and Enforcement and Organization Registration and Certification 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?

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?

IV: Is the activity one that was required or directed by a Commission order issued pursuant to FPA §215? (FERC orders directed NERC to develop and submit a revised definition of “Bulk Electric System” and a procedure for requesting and receiving exceptions from the BES definition, and subsequently approved (with some changes) NERC’s proposed revised 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 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?

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 2014 Major Activities

The major activities of the Reliability Assessment and Performance Analysis (“RAPA”) Program are described at pages 11-12, 18-20 and 46-50 of the 2014 Business Plan and Budget. The principal activity areas of the RAPA program include: (1) conducting and publishing reliability assessments, including the annual long-term, summer, and winter reliability assessments and special and scenario reliability assessments; (2) conducting performance analysis to identify and track key reliability risk indicators as a means of benchmarking reliability performance and measuring reliability improvements in order to provide a framework for insights and guidance about emerging trends and associated actions that may be warranted; (3) reliability risk analysis and control activities; and (4) reliability initiatives and system analysis activities, involving comprehensive evaluation and testing system behavior through forensic analysis during system disturbances and through analytic simulations of that performance.

The ongoing and new major activities of the RAPA Program for 2014 include: issuing reliability reports, guidelines, recommendations and alerts as needed; preparing the long-term and seasonal reliability assessments; conducting special assessments addressing key reliability issues; preparing an annual State of Reliability Report that analyzes BPS performance trends and provides insight and guidance to address key reliability aspects; continuing to work to address high impact, low frequency type issues, including geo-magnetic disturbance (“GMD”) BES effects and vulnerability assessment; providing oversight, analysis and review of the Generating Availability System, Transmission Data Availability System and Demand Response Availability System, along with the Spare Equipment Database; strengthening data collection and validation processes by designing, creating, testing and implementing data systems and management for reliability assessment and risk analysis; providing quarterly updates on trends and measures of BES reliability; developing risk registry and a systematic prioritization process with the RISC; developing control strategies and plans to address the highest priority existing or emerging risks to BES reliability; developing a risk register to support BPS risk profile measurement and assessment of standards; supporting the development of ERO enterprise applications critical to advancing the quality and usefulness of reliability assessments; and developing a structured approach to evaluate and improve system models, analysis and assessments. The RAPA Program will also provide support and leadership to the NERC Planning Committee, the subcommittees of NERC standing committees, and task forces serving the standing committees. During 2014, the RAPA Program will be responsible for conducting/supporting research in the following areas: research to validate the technical foundation supporting the inclusion within the Gallett Equation in Reliability Standard FAC-003 of factors for the Minimum Vegetation Clearance Distance; research relating to vegetation management on public lands (FAC-003); and research to expand the technical foundation for understanding the potential impact of GMD, through continuation of the GMD Task Force and GMD research through the Electric Power Research Institute. Additionally, during 2014 the RAPA Program will continue to work with the Regional Entities to implement the revised BES definition and the BES exception process.

The major activities of the RAPA Program satisfy the following criteria:

I.A: is the activity necessary or appropriate for Reliability Standards development

projects pursuant to the NERC Rules of Procedure?

I.C.1: Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information for Reliability Standards development, including for purposes of identifying areas in which new Reliability Standards could be developed, existing Reliability Standards could be revised, or existing Reliability Standards could be eliminated, such as: (1) Measuring reliability performance – past, present and future; publishing or disseminating the results of such measurements; analyzing the results of such measurements; identifying and analyzing risks to reliability of the Bulk Power System based on such measurements; and/or identifying approaches to mitigating or eliminating such risks?

III.A: Is the activity necessary or appropriate for the preparation or dissemination of long-term, seasonal, and special assessments of the reliability and adequacy of the Bulk Power System?

III.B: Is the activity necessary or appropriate for measuring reliability performance – past, present and future; publishing or disseminating the results of such measurements; analyzing the results of such measurements; identifying and analyzing risks to reliability of the Bulk Power System based on such measurements; and/or identifying approaches to mitigating or eliminating such risks?

III.F: Is the activity necessary or appropriate for the development and dissemination of Advisories/Recommendations/Essential Actions regarding lessons learned and potential reliability risks to users, owners, and operators of the Bulk Power System?

IV: Is the activity one that was required or directed by a Commission order issued pursuant to §215? (FERC Order No. 777, 142 FERC ¶ 61,208 (2013), directing NERC to conduct research regarding the vegetation management topics described above.)

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.)

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) 2014 Major Activities

The major activities of the Reliability Risk Management Program, which is comprised of the Situation Awareness Department and the Event Analysis Department, are described at pages 12, 58-60 and 63-65 of the 2014 Business Plan and Budget. The major activities of this program are real-time or near-real-time BPS awareness; event analysis and determination of root or contributing causes; assessment of human performance challenges affecting BPS reliability and identification of improvement opportunities; and support of the NERC Operating Committee. These activities are carried out to analyze events and address significant risks to the reliability of the BPS and to insure the industry is well informed of system events, emerging trends, risk analysis, lessons learned and actions. These activities may also identify areas in which new or enhanced compliance monitoring and enforcement initiatives are warranted.

The ongoing and new major activities of the Reliability Risk Management Program for 2014 include: conducting major event investigations, analysis and reporting of major findings and recommendations that will improve reliability; supporting the development and implementation of ERO enterprise applications critical to advancing the quality and usefulness of event analysis data; and continuing to work with Regional Entities to obtain and review information from Registered Entities regarding qualifying events and disturbances in order to advance awareness of events above a threshold level, facilitate analysis of root causes, risks to reliability, Wide-Area assessments, mitigation, and timely dissemination of information regarding events. The major activities of the Situation Awareness Department include the ongoing maintenance and support of a number of tools used to support the ERO's operations, including automated reliability reports, the resource adequacy (ACE frequency) tool, the inadvertent interchange tool, the AIE monitoring tool, the frequency monitoring and analysis tool, the intelligent alarms tool, and the Secure Alerts system. The Events Analysis Department will continue to work with the Regional Entities to develop the Events Information Data System, a new software application whose purpose is to provide an ERO-wide robust tool to collect, analyze and report detailed information regarding events which impact the reliability of the BPS.

The major activities of the Situation Awareness Department and Event Analysis Department 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?

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?

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?

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. Critical Infrastructure Protection Program 2014 Major Activities

The major activities of the Critical Infrastructure Protection Program are described at pages 12, 23 and 67-74 of the 2014 Business Plan and Budget. The major activities of the CIP Program include supporting the development and administration of the CIP standards; oversight of CMEP activities related to CIP standards; critical infrastructure and cyber security information sharing; cyber security incident analysis; risk assessment; coordination between industry and governmental entities on cyber-security issues; and support for the NERC Critical Infrastructure Protection Committee and the Electricity Sub-sector Coordinating Council (“ESSC”). The CIP Program is responsible for the operation of the Electricity Sector Information Sharing and Analysis Center (“ES-ISAC”), the primary activity of which is the rapid and secure sharing of information with the electric industry and government entities regarding real and potential cyber related threats to the electricity sector as well as methods and tools to avoid or mitigate potential impacts from these threats.

The ongoing and new major activities of the CIP Program, including the ES-ISAC, for 2014 include: delivering important information to Registered Entities on CIP security threats, vulnerabilities, and lessons learned from subject matter experts, senior industry and governmental representatives; through security best-practice discussion forums, educating industry about reliability concerns and risk mitigation associated with emerging physical and cyber security threats; continuing to collaborate with government agencies in the U.S. and Canada to develop more timely dissemination of classified information regarding threats to the BPS, including dissemination of information from classified sources in a form that can be provided to and used by the industry; conducting security incident analysis and working with industry experts to evaluate, track, and identify lessons learned and security metrics that enhance the electricity sector’s security posture; and conducting cyber risk preparedness assessments, which assess the cyber security capabilities of Registered Entities through facilitated table top exercises.

The major activities of the CIP Program 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?

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.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.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.)

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?

VII. Training, Education, and Operator Certification Program 2014 Major Activities

The major activities of the Training, Education, and Operator Certification Program are described at pages 13 and 76-77 of the 2014 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 and industry participants that support the ERO's responsibilities; and supporting NERC's System Operator Certification and Continuing Education ("SOCCED") Programs, which ensure that personnel operating the BPS have the skills, training and qualifications needed to operate the BPS reliably.

The major activities of the Training, Education, and Operator Certification Program for 2014 include: continuing to support the SOCCED programs; and providing or facilitating the provision of training to support knowledge and skills development in the standards, compliance, registration, event analysis and other key areas.

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.)

VIII. Administrative Services 2014 Major Activities

NERC’s Administrative Services Departments are Technical Committees and Member Forums (for which no activities are budgeted for 2014), General and Administrative, Legal and Regulatory, Information Technology (“IT”), Human Resources, and Accounting and Finance. The major activities of these departments are described at pages 13, 81, 83, 85-90, 96-97 and 99 of the 2014 Business Plan and Budget. General and Administrative includes the administration and general management of the organization, Board of Trustees fees and expenses, communications and governmental affairs, and office rent. Legal and Regulatory provides legal support to the organization, including to the Board, executive management, and the Reliability Standards and Compliance 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 applications and infrastructure. Human Resources manages all of NERC's human resources functions, including new hires, benefits, employee functions, and the performance appraisal and incentive structure processes. Accounting and Finance manages all finance and accounting functions of NERC, including payroll, 401(k) and 457(b) plans, travel and expense reporting, monthly financial reporting, sales and use tax, meeting and event planning and service, insurance, internal audit, facilities management, development of the annual business plan and budget, and the ERO risk management framework.

Major activities for the NERC Administrative Services departments in 2014 include: continuing to provide resources to support the Board and Board committees, Member Representatives Committee, Standards Committee, Compliance and Certification Committee, Planning Committee, Operating Committee, CIP Committee, ESSC, RISC, and numerous ERO subcommittees and working groups; continuing to implement procedures, controls, processes, documentation and systems to improve the efficiency of operations and control costs; continuing to work with the Regional Entities to improve oversight and collaboration; continuing to enhance ERO risk management tools and procedures; developing a comprehensive technology roadmap for applications and infrastructure supporting ERO operations, including Regional Entity components; reviewing and where applicable making recommendations for improvements in NERC and Regional Entity operating and working capital reserve policies and forecasting, including policies applicable to tracking and use of excess operating reserves; financial reporting and practices; and evaluating and implementing mechanisms to improve talent acquisition and employee retention.

Major activities for 2014 relating to development and enhancement of NERC and ERO enterprise software applications and infrastructure include: continuing to develop ERO enterprise-wide applications for common business processes and functions of NERC and the Regional Entities; continuing to work collaboratively with the Regional Entities to advance the design and implementation of strategic ERO Enterprise IT applications and supporting infrastructure, leading to development of a centrally-managed, dedicated hosting and data center facility for NERC and the Regional Entities; maintenance and re-design of NERC legacy applications; ensuring recoverability of the NERC technology footprint (disaster recovery); enhancing knowledge management through implementation of document and information management systems; continuing emphasis on security and vulnerability testing; and developing and commencing implementation of ERO enterprise applications to support reliability assessments and event analysis data management needs.

The major activities of NERC's Administrative Services Departments satisfy the following criteria:

I.A: Is the activity necessary or appropriate for Reliability Standards development projects pursuant to the NERC Rules of Procedure (ROP)?

II.A: Is the activity necessary or appropriate for the identification and registration of users, owners, and operators of the Bulk Power System that are required to comply with

Requirements of Reliability Standards applicable to the reliability functions for which they are registered?

II.D: Is the activity necessary or appropriate for conducting, participating in or overseeing compliance monitoring and enforcement activities pursuant to the NERC ROP and (through the Regional Entities) the Commission-approved delegation agreements?

III.C: Is the activity necessary or appropriate for investigating, analyzing, evaluating, and disseminating information concerning, the causes of major events and off-normal occurrences, and/or providing coordination assistance, technical expertise and other assistance to users, owners, and operators of the Bulk Power System in connection with Bulk Power System major events and off-normal occurrences, but not real-time operational control of the Bulk Power System?

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

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

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

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

For purposes of internal management approval of a proposed new activity or group of related activities (“major activity”), the proposed activity or major activity must be shown to fall within at least one of the criteria listed below. When sub-criteria are listed below a roman numeral numbered major criterion, the proposed activity should be a positive answer to at least one of the sub-criteria. Conversely, an activity that falls under a 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 System²⁶ based on such measurements; and/or identifying approaches to mitigating or eliminating such risks?

²⁶ 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.

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 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?²⁷
 - 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?

²⁷ 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.

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?
 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 electric energy.

Exhibit C – Contractor and Consulting Costs

Program	Consultants & Contracts	2013 BUDGET	2014 BUDGET	INC (DEC) OVER 2013
Reliability Standards	Standards Restructuring Project	150,000		(150,000)
	Total Reliability Standards	150,000	-	(150,000)
Compliance Operations				-
	Reliability Assurance Initiative		400,000	400,000
	Total Compliance Operations	-	400,000	400,000
Reliability Risk Mgmt				-
	Subject Matter Experts - Events Analysis	120,000	75,000	(45,000)
	Reliability Risk Management	120,000	75,000	(45,000)
				-
Reliability Assessments, GADS, TADS, DADS & Spare Equipment Database				
RAPA	Reliability affects of GMD	250,000	250,000	-
	Vegetation Research (FAC 3)		350,000	350,000
	Federal Right-of-Way Monitoring		50,000	50,000
	Metrics - Centralized data collection-Change Orders	50,000	50,000	-
	RADS Assessment Database (Known Contingency)	100,000		(100,000)
	Scenario Consultant	70,000	70,000	-
GADS/TADS/DADS/SED	Database Consulting Support	80,000	150,000	70,000
	Monthly Maintenance	135,000	218,085	83,085
	Replacement for pc_GAR		100,000	100,000
	Total Reliability Assessments and Performance Analysis	685,000	1,238,085	553,085
Situation Awareness				
	Synchro Phasor (NASPI)	810,000		(810,000)
	Automated Reliability Reports		100,000	100,000
	Resource Adequacy (ACE Frequency) Tool	80,000	80,000	-
	Inadvertent Interchange (Srv. Agreement)	35,000	35,000	-
	AIE Monitoring (Srv. Agreement)	35,000	35,000	-
	Frequency Monitoring and Analysis Tool (FMA)	45,000	45,000	-
	Intelligent Alarms/DARA (Srv. Agreement)	55,000	55,000	-
	NERC Access to IDC		27,816	27,816
	Secure Alerting System	200,000	79,373	(120,627)
	SAFNR - Phase II	725,500	531,825	(193,675)
	IDC Contract	457,586	-	(457,586)
	NERCnet (Frame Relay) Contract	300,094	400,000	99,906
	Total Situation Awareness	2,743,180	1,389,014	(1,354,166)

Exhibit C — Contractor and Consulting Costs

Program	Consultants & Contracts	2013 BUDGET	2014 BUDGET	INC (DEC) OVER 2013
Critical Infrastructure	ESCC Support	130,000	190,000	60,000
	GridEx Support	200,000		(200,000)
	Subtotal - ESCC and GridEx	330,000	190,000	(140,000)
	ES-ISAC			
	Portal Enhancement	90,000	250,000	160,000
	Intelligence Reporting Services		42,000	42,000
	Cyber Risk Preparedness Assessment	150,000	300,000	150,000
	Aurora Webinars and Technical Support	15,000	30,000	15,000
	ES-ISAC Members Conference	30,000	-	(30,000)
	Secure bi-directional communications	25,000	54,000	29,000
	Cyber Awareness Monitoring	60,000	152,700	92,700
	Software Integration Support Services	55,000	61,750	6,750
	Analyst Workbench	30,000	30,000	-
	Subtotal - ES-ISAC	455,000	920,450	465,450
	Total Critical Infrastructure Department	785,000	1,110,450	325,450
Operator Certification	System Operator Testing Expenses 2011 1,025 @ \$70)	63,124	100,000	36,876
	System Operator Examination Development	113,690	100,000	(13,690)
	Examination Analysis (750 exams @\$17 per exam)	13,600	14,000	400
	System Operator Certification and Continuing Education Database			
	Database Development	20,000	35,000	15,000
	Database Maintenance	12,330	24,000	11,670
	SOCCEC Database Improvement Project (funded from Working Capital generated from fees in excess of expenses)	250,000	200,000	(50,000)
	Total System Operator Certification	472,744	473,000	256
Training & Education	Continuing Education Program			
	Individual Learning Activity Reviewers	120,000	120,000	-
	Database Development	20,000	20,000	-
	Database Maintenance	12,330	12,330	-
	Web-based course hosting (Learning Management System)	26,500	26,500	-
	Web-based course development			-
	standards applications for industry, CEA staff	43,750	43,750	-
	risk assessment training for CEA staff, industry	20,000	20,000	-
	human performance fundamentals for staff, industry	43,750	43,750	-
	BPS events lessons learned for industry	12,500	12,500	-
	Training Services-NERC and Regional Entities			
	Regional Entity and NERC Auditor training	47,000	47,000	-
	NERC Staff Technical Training	30,000	30,000	-
	Total CE, Training & Education	375,830	375,830	-
	Total Training, Education and Operator Certification	848,574	848,830	256

Exhibit C — Contractor and Consulting Costs

Program	Consultants & Contracts	2013 BUDGET	2014 BUDGET	INC (DEC) OVER 2013
				-
Government Relations	External Affairs	150,000	175,000	25,000
	Total Government Relations	150,000	175,000	25,000
Information Technology				
	Ongoing Operations	1,371,000	1,784,000	413,000
	Risk and Analysis-Enterprise Applications	1,350,000	420,000	(930,000)
	Information Technology	2,721,000	2,204,000	(517,000)
Human Resources	Executive Training and Development	90,000	90,000	-
	Staff Training and Development	106,000	65,000	(41,000)
	Compensation Consulting	30,000	30,000	-
	Employee, industry and Board Surveys, succession planning	35,000	45,000	10,000
	HR Process Improvements	27,500	27,500	-
	Human Resources	288,500	257,500	(31,000)
Finance and Accounting	Internal Controls and Outside Auditor Consulting Support	205,000	375,000	170,000
	Assessment of CIP Auditing Practices and reports	60,000	-	(60,000)
	Audit procedures, practices, tools and reports consulting support	60,000	50,000	(10,000)
	Finance and Accounting Support		50,000	50,000
	Finance and Accounting	325,000	475,000	150,000
	TOTAL CONSULTANTS AND CONTRACTS	8,816,254	8,172,879	(643,375)

Exhibit D –Capital Project Financing - Overview

Management has been exploring ways to mitigate the impact on assessments and operating reserves associated with funding the development and cost of large software development projects, the cost of which are capitalized and spread over a number years. As further described in the text of NERC's proposed 2014 business plan and budget, management has been developing and proposes to continue to develop software applications that support critical ERO operations and initiatives. Management has been working with its lender to structure a financing program for the development of these applications. Based on these discussions it appears that the company will be capable of structuring a multiyear credit facility at favorable interest rates that will allow the cost of the development of these applications and supporting infrastructure to be spread over 3 or more years. The terms of the credit facility are also expected to provide the company with the flexibility to prepay outstanding loans without penalty. Working with information provided by its lender management has developed a preliminary projection of the annual principal and interest repayment costs associated with financing the applications which are currently under development or planned for development in 2013 (i.e. the BES and EIDS applications, respectively), the development of a new alerts application in 2014, as well as the development of the RADS application and a replacement compliance information systems application in 2015, together with the cost of financing portions of the company's IT hardware budget. This projection is detailed on the chart on the following page. While in-house resources will also be involved in the development of these applications, it is not expected that these costs will be capitalized and financed. An activity code will be created in the workforce management system to track in house time on these projects.

NERC is moving forward with the negotiation of a definitive terms sheet with its lender and will update this projection, as well as the 2014 budget and assessment calculations, and the 2015 and 2016 budget and assessment projections, to reflect the final negotiated terms. Completion of the transaction will be subject to the prior receipt by management of all necessary corporate authorizations, as well as approval by the Board of Trustees and the Federal Energy Regulatory Commission of the company's final 2014 business plan and budget reflecting the company's projected repayment obligations under the credit facility, including recognition that the interest payments and principal repayments for 2015 and 2016 will be included in NERC's budget and assessments for those years.

Exhibit E - Working Capital and Operating Reserve Amounts

Working Capital – \$0

Based upon its 2013 cash flow projection and taking into account the historic manner in which NERC's assessments have been billed and paid, including the fact that WECC collects and pays its entire annual allocated share of the NERC assessments during the 1st quarter of the year, NERC does not anticipate needing access to working capital in 2013 to meet monthly cash flow needs. In the unlikely event NERC experiences a temporary cash flow shortage it has the ability to either request authorization from the Finance and Audit Committee and Board of Trustees to temporarily access operating reserve funds or draw on its \$4M line of credit so long as NERC is in compliance with the covenants under its bank credit agreement.

NERC's credit agreement currently requires NERC to maintain a minimum of \$1.250M in net assets (total assets minus intangible assets minus total liabilities). As of December 31, 2012, NERC's unrestricted net assets were \$9.7M. (Refer to Section D, Supplemental Financial Statements)

NERC has also posted letters of credit totaling approximately \$101,236 in lieu of cash security deposits in connection with its offices leases. In the event these lines of credit are drawn upon, NERC is required to reimburse the draws in full. Management does not recommend at this time that working capital be maintained as security for this reimbursement obligation, as cash flows are projected to be sufficient in 2013 -2014 to support timely payment of Office Rent without the letters of credit being drawn on.

Operating Reserves – \$2.7M Total (Known Contingency Category-\$1.M + Unforeseen Contingency Category \$1M + Personnel Certification and Operating Training Excess Revenues \$741.3k)

Operating reserve amounts are divided into three categories: (1) known contingencies, (2) unknown contingencies and (3) excess revenues from the Personnel Certification and Operator Training Programs. Management's proposal with respect to the amount of 2013 reserves for each of these categories is set forth below.

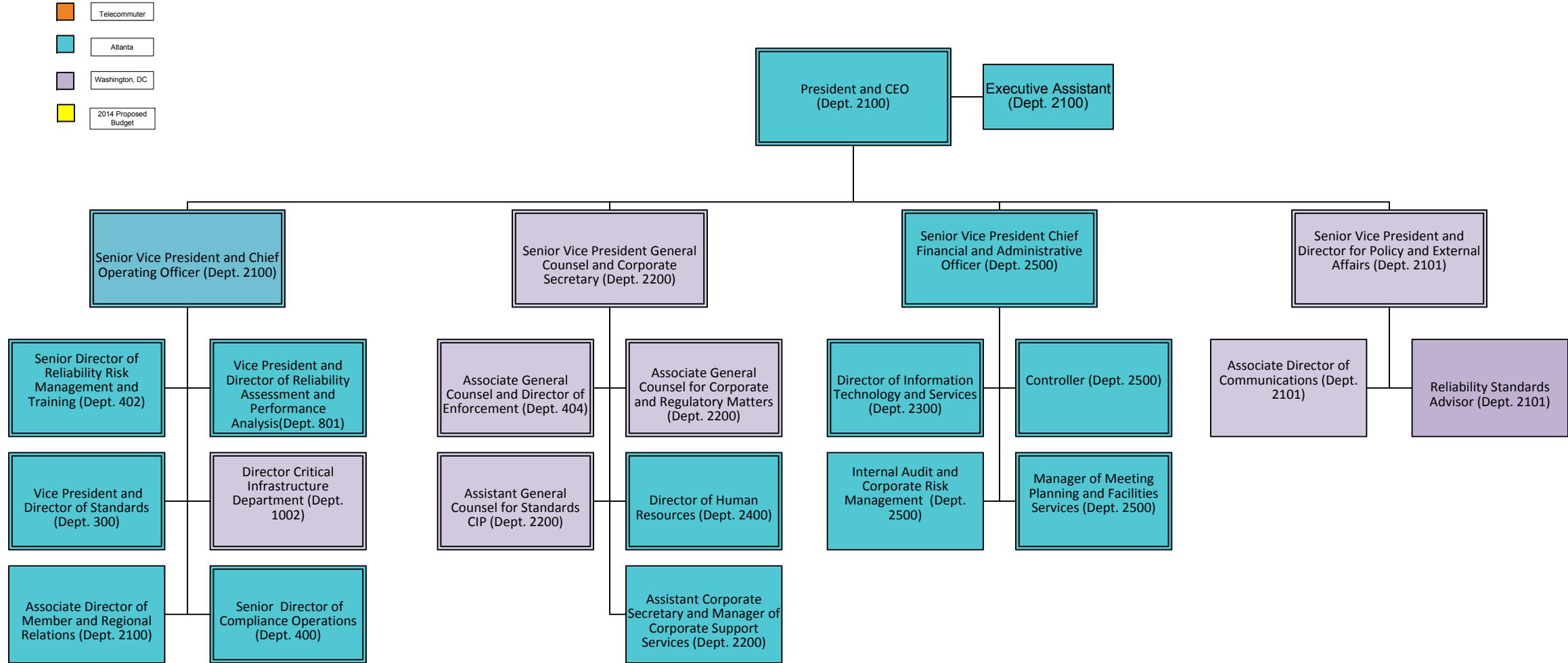
- (1) Known Contingencies where timing and amount uncertain — \$1M
 - a. 2014 known contingencies include potential funding of the RADS application debt service, CFM and CRISP.
- (2) Unforeseen Contingencies — \$1M
 - a. Represents a contingency for unknowns including significant litigation, compliance with new governmental or regulatory mandates, major system event investigations, etc.
- (3) System Operator Certification Program — \$741.3k

Total Working Capital + Operating Reserves – \$2.7M

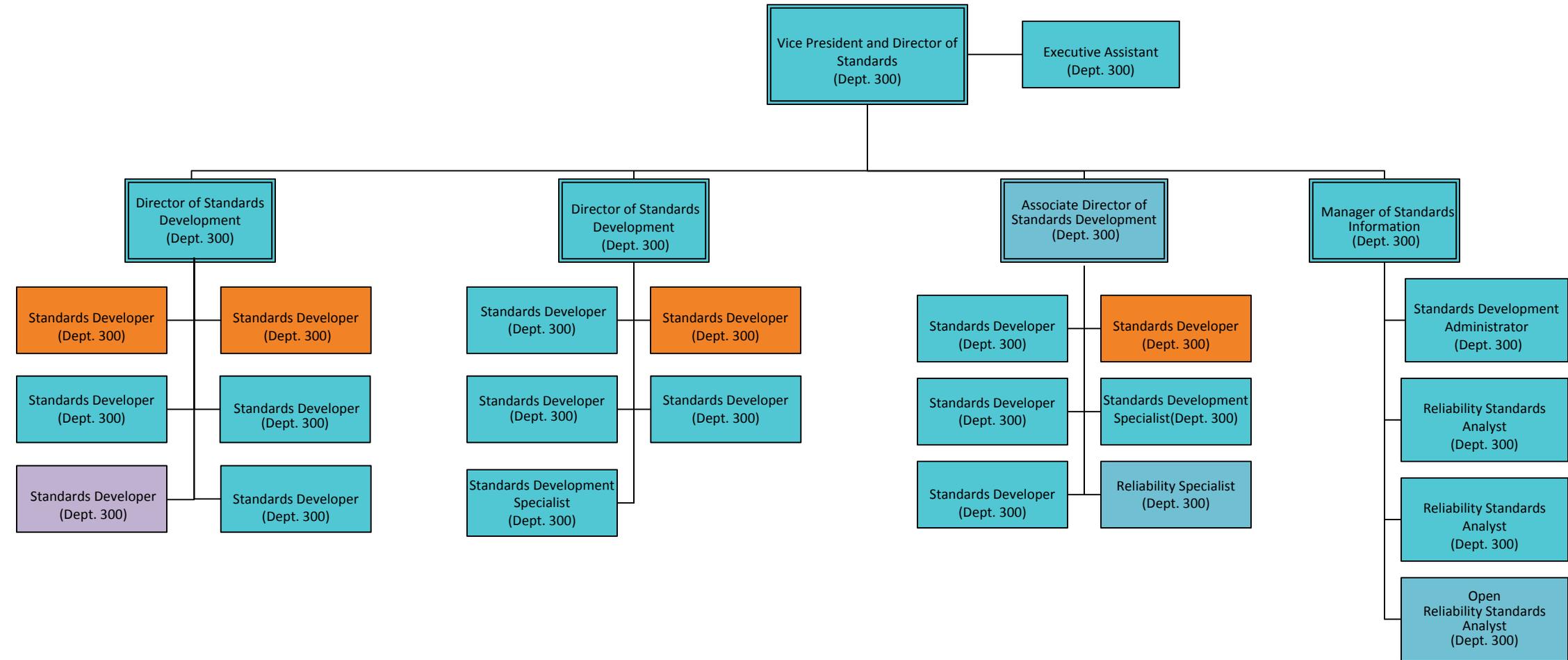
Exhibit F – NERC Organizational Chart

NERC Organizational Chart
Next page.

NERC Staff Organization Chart 2013-2014 Budget

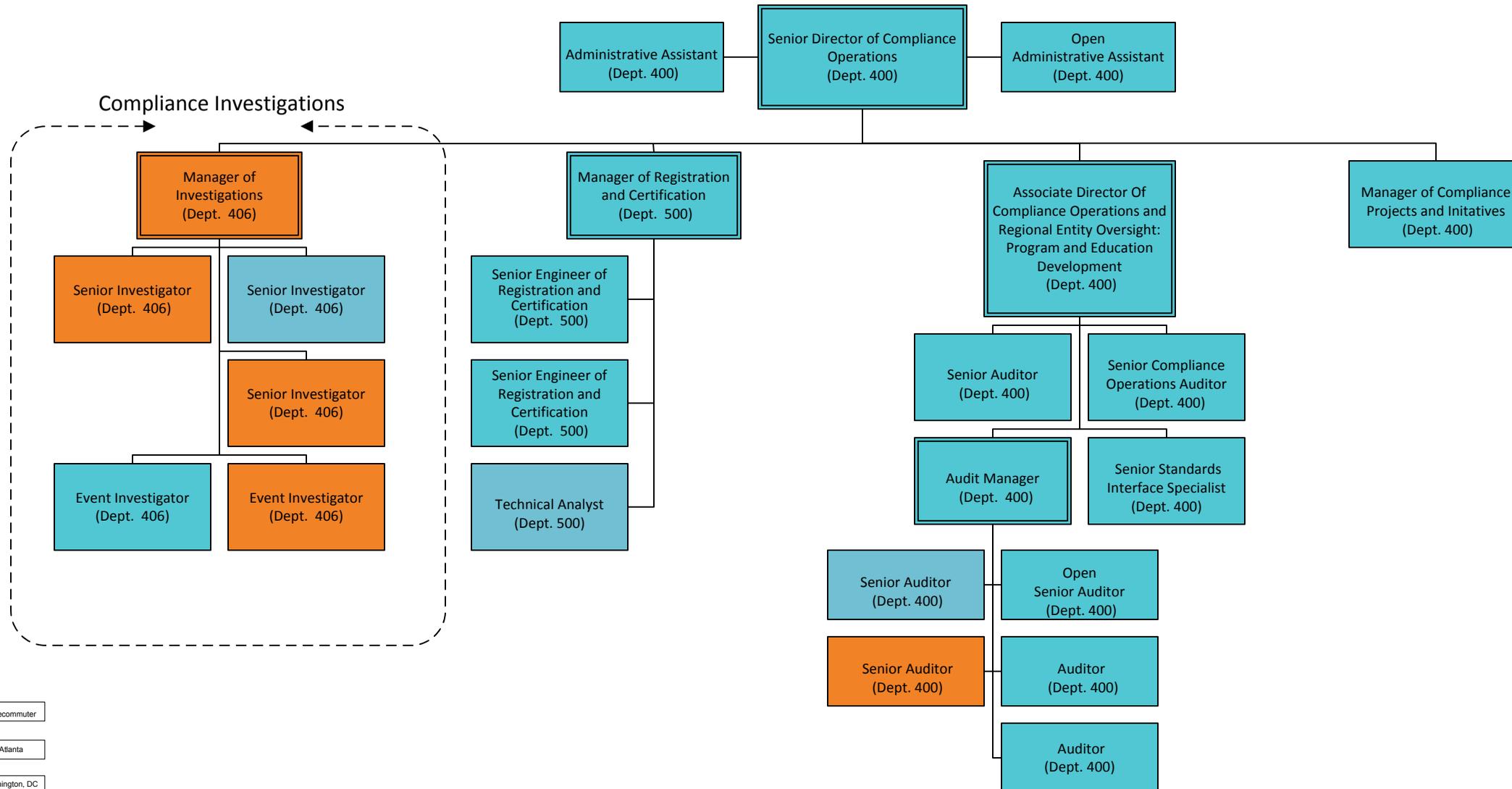


Reliability Standards 2013-2014 (Dept. 300)



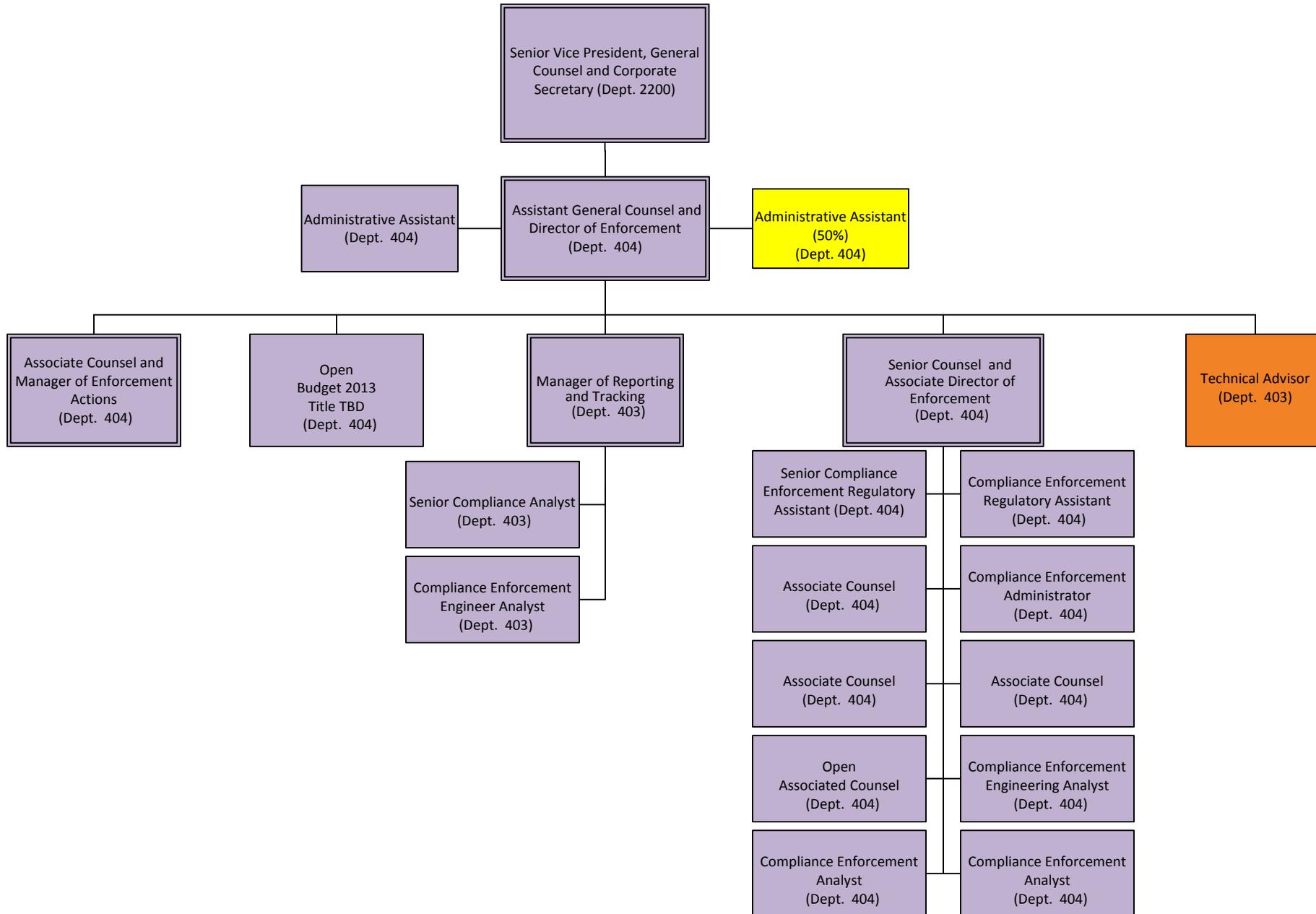
- Telecommuter
- Atlanta
- Washington, DC
- 2014 Proposed Budget

Compliance Operations 2013-2014 (Dept. 400, 406, 500)



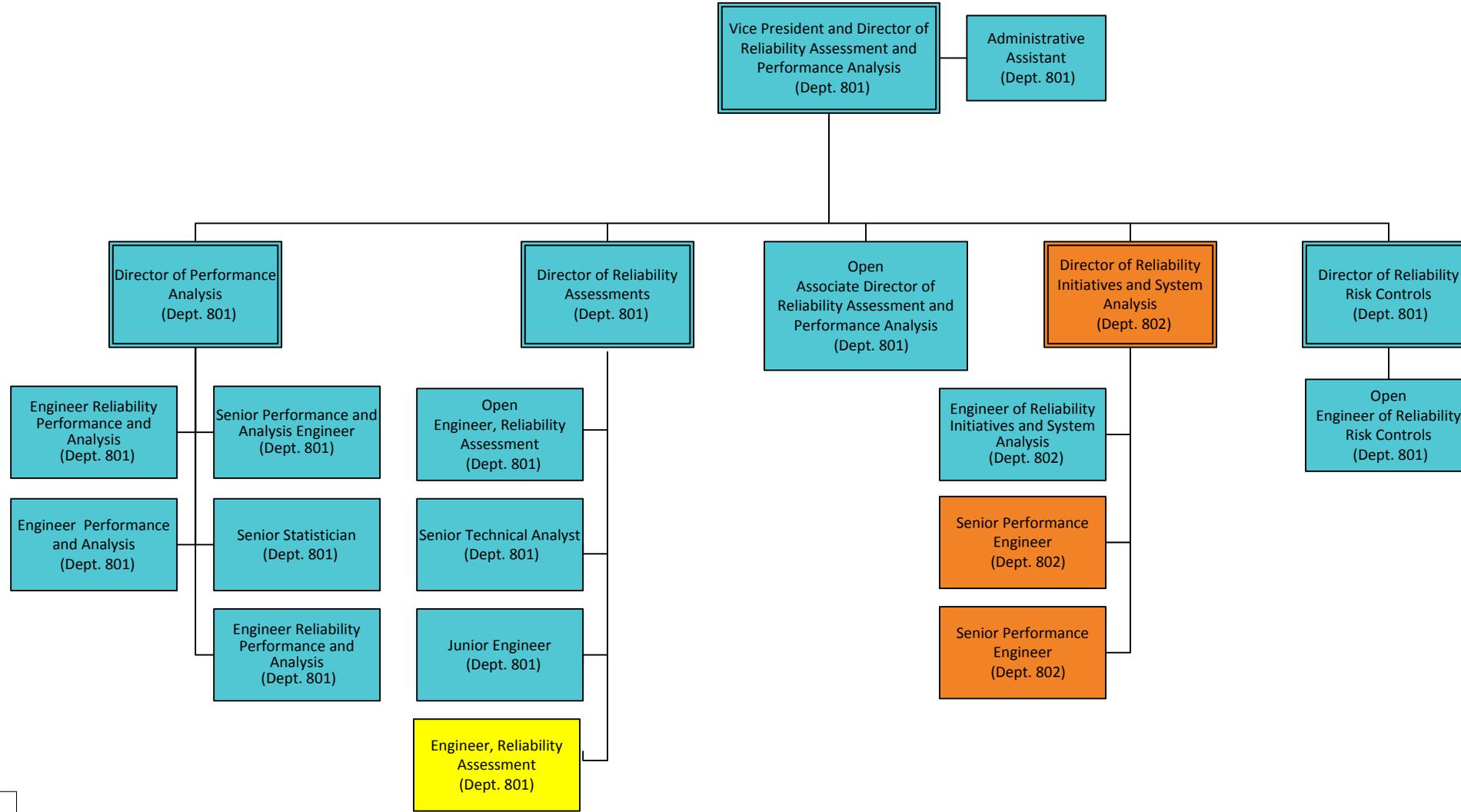
- Telecommuter
- Atlanta
- Washington, DC
- 2014 Proposed Budget

Compliance Enforcement 2013-2014 (Dept. 403, 404)



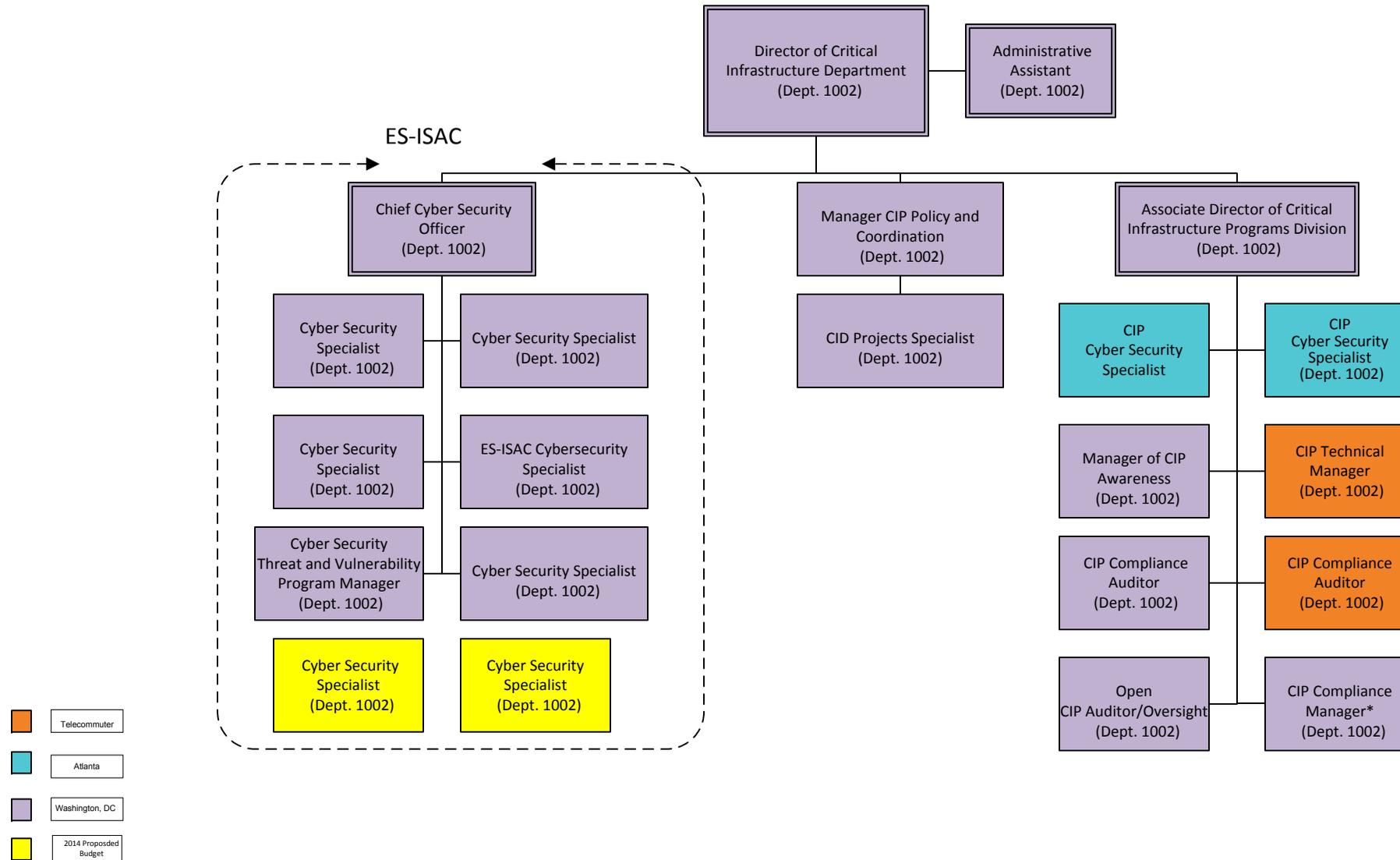
- Telecommuter
- Atlanta
- Washington, DC
- 2014 Proposed Budget

Reliability Assessment and Performance Analysis 2013-2014 (Dept. 801, 802)



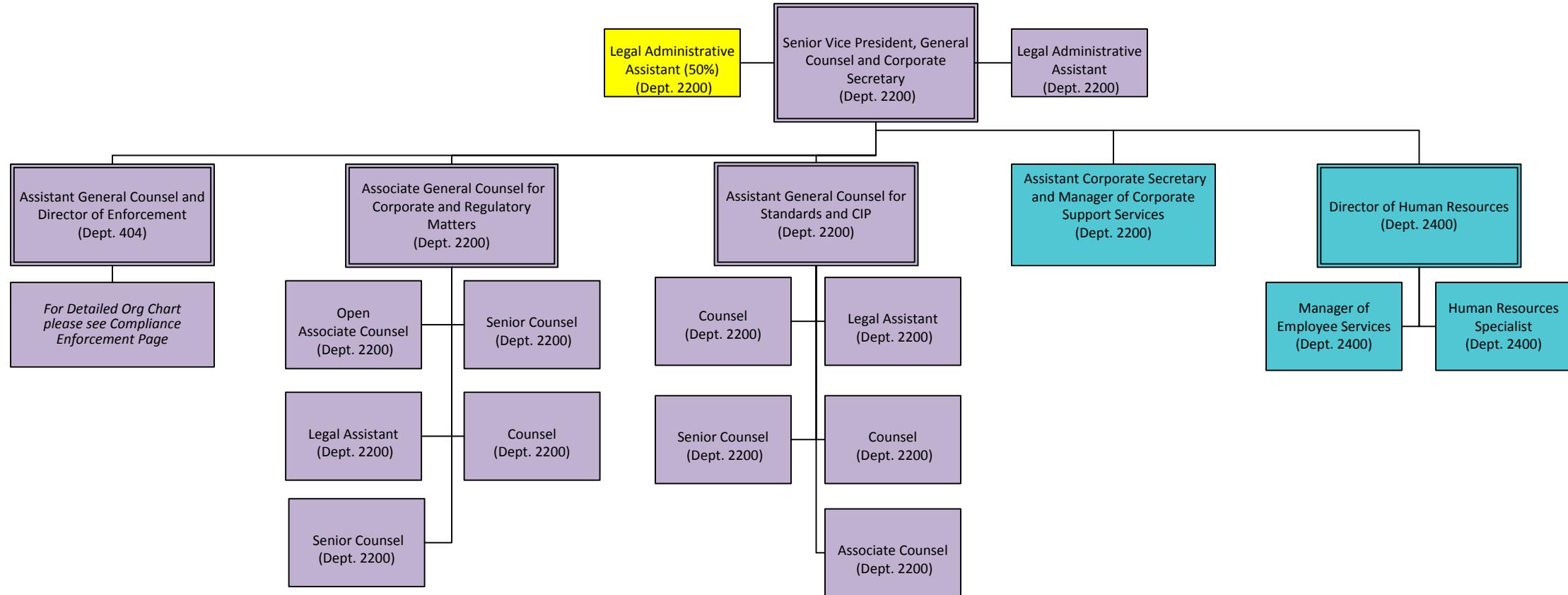
- Telecommuter
- Atlanta
- Washington, DC
- 2014 Proposed Budget

Critical Infrastructure Department 2013-2014 (Dept. 1002)



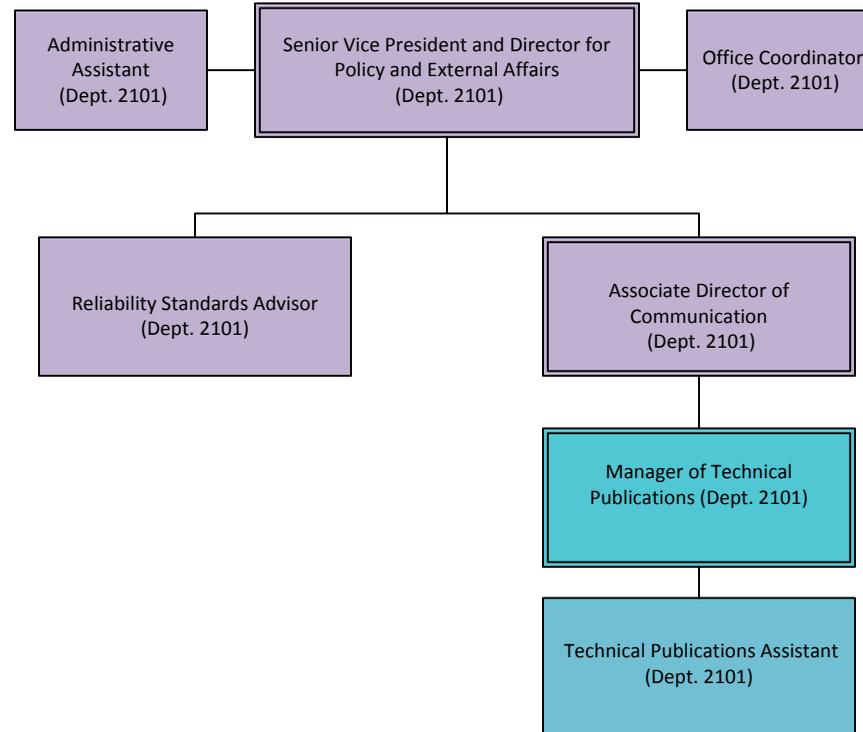
* Also performs CIP Compliance Audit Function

Legal and Regulatory 2013-2014 (Dept. 2200)
 Human Resources 2013-2014 (Dept. 2400)
 Compliance Enforcement 2013-2014 (Dept. 403, 404)



- Telecommuter
- Atlanta
- Washington, DC
- 2014 Proposed Budget

Governmental Relations 2013-2014 (Dept. 2101)



- Telecommuter
- Atlanta
- Washington, DC
- 2014 Proposed Budget

Accounting & Finance and Information Technology 2013-2014 (Dept. 2300, 2500)

- Telecommuter
- Atlanta
- Washington, DC
- 2014 Proposed Budget

