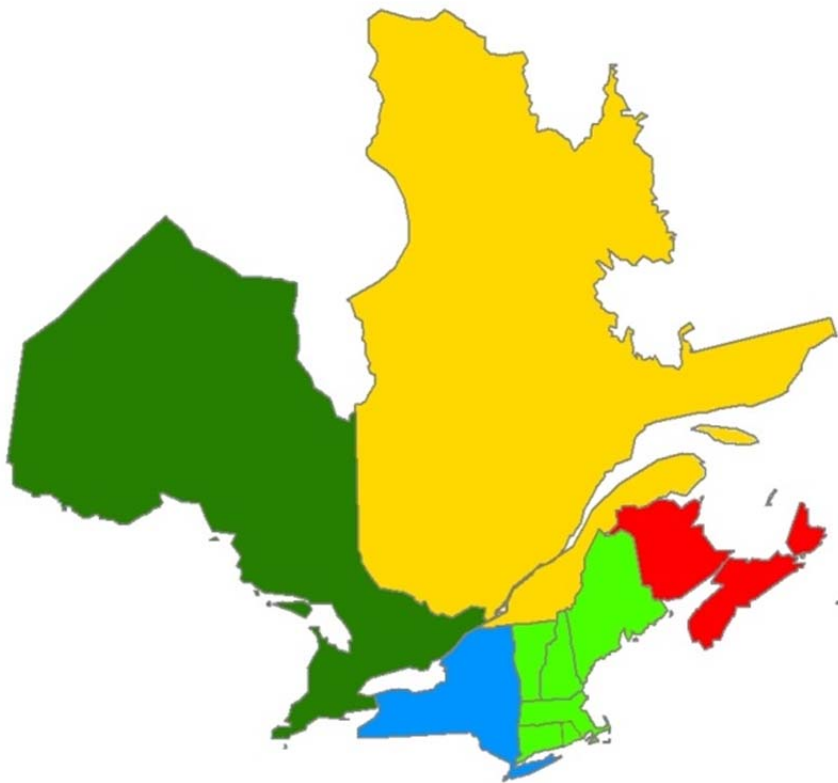




NORTHEAST POWER COORDINATING COUNCIL, INC.
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Northeast Power Coordinating Council, Inc. (NPCC)

2016 Business Plan and Budget



**Draft 2 for
NPCC BOD Review at its
June 4, 2015 Meeting**

Table of Contents

Introduction.....	3
Personnel Analysis.....	12
Section A — 2016 Business Plan	15
Reliability Standards Program	15
Compliance Monitoring and Enforcement and Organization Registration and Certification Program.....	23
Reliability Assessment and Performance Analysis Program.....	31
Training, Education, and Operator Certification Program.....	44
Situation Awareness and Infrastructure Security Program.....	48
Administrative Services	54
Technical Committees and Member Forums	56
General and Administrative	57
Legal and Regulatory	58
Information Technology	59
Human Resources	61
Accounting and Finance	62
Regional Entity Assessment Analysis	63
Section B — Supplemental Financial Information.....	67
Reserve Balance.....	67
Breakdown by Statement of Activity Sections	68
Section C —2016 Criteria Services Division Business Plan and Budget.....	78
Personnel Analysis.....	85
Reserve Analysis 2015-2016	86
Section D.....	88
Statement of Financial Position	88
Appendix A Staff Allocation	90
Appendix B Acronyms.....	92
Appendix C Index of Figures and Tables.....	94

Introduction

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

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

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

2016 Overview of Total NPCC Resource Requirements

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

NPCC proposes to increase its total budget and assessments by 2.0% comprising a Regional Entity increase of 2.0% and a Criteria Services division increase of 2.4%. The proposed 2016 funding requirements will be satisfied by a Regional Entity division assessment of \$14,345,510 and Criteria Services division fees of \$1,060,169, an overall increase of 2.0% compared to the 2015 total assessments and fees of \$15,104,099. NPCC believes that the Region remains an effective provider of Regional Entity and Criteria Services division functions. NPCC's corporate culture centers on consistent delivery of excellent results at a cost that is considerate of the longstanding tradition in the Northeast of affordable and reliable electricity.

Organizational Overview

Northeast Power Coordinating Council, Inc. (NPCC) is a 501(c)(6) not-for-profit corporation in the state of New York responsible for promoting and improving the reliability of the international, interconnected bulk power systems in Northeastern North America through (i) the development of Regional Reliability Standards and compliance assessment and enforcement of continent-wide and Regional Reliability Standards, coordination of system planning, design and operations, and assessment of reliability (collectively, Regional Entity activities), and (ii) the

establishment of Regionally-specific criteria, and monitoring and enforcement of compliance with such criteria (collectively, criteria services activities). NPCC provides the functions and services for Northeastern North America of a cross-border Regional Entity through a Regional Entity division, as well as Regionally-specific criteria services for Northeastern North America through a criteria services division. NPCC's website is www.npcc.org.

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

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

In this 2016 business plan, NPCC has included activities consistent with NERC initiatives including the enhancement of reliability assessments, risk-based registration, risk-based compliance monitoring and enforcement, expanded training for compliance auditing, and increased situation awareness.

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

Membership and Governance

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

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

Full Membership is available to Members which are already General Members and participate in electricity markets in the Northeast. Independent system operators (ISOs), Regional transmission organizations (RTOs), Transcos and other organizations or entities that perform the

Balancing Authority function operating in Northeastern North America are expected to be Full Members of NPCC. The New York State Reliability Council and any other sub-regional reliability councils which may be formed are also expected to be Full Members. Full Members are subject to compliance with Regionally-specific more stringent reliability criteria for their generation and transmission facilities on which faults or disturbances can have a significant adverse impact outside of the local area and which are identified utilizing a reliability impact-based methodology, in addition to Reliability Standards, and receive additional services from the Criteria Services division of NPCC, which is not funded through the ERO.

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

- Sector 1) Transmission Owners
- Sector 2) Reliability Coordinators
- Sector 3) Transmission Dependent Utilities, Distribution Companies, Load Serving Entities
- Sector 4) Generator Owners
- Sector 5) Marketers, Brokers and Aggregators
- Sector 6) Regulators
- Sector 7) Sub-Regional Reliability Councils, Customers, other Regional Entities and Interested Entities
- Sector 8) Independent

A Finance and Audit Committee (FAC), a Pension Committee (PC), a Corporate Governance and Nominating Committee (CGNC), and a Management Development and Compensation Committee (MDCC) advise the Board on finance, governance, compensation and human resource matters consistent with their approved charters. The Board endorses a non-employee, Certified Public Accountant for election by the NPCC Members as Treasurer of the corporation. The Treasurer chairs the FAC and works with the Chief Operating Officer who provides oversight of the finances of the corporation. The Treasurer reports to the Board on the corporation's financial position, on FAC activities, on tax code requirements, and on independent annual audit results and accounting practices.

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

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

broad range of industry expertise, perspectives, experiences, skill sets and knowledge to contribute to the effective functioning of a hybrid board structure.

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

International Foundation

The Regional Entity functions and services differ according to particular regulatory backstop:

a) U.S. Foundation

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

b) Ontario

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

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

The IESO is subject to compliance monitoring and enforcement by NPCC. The IESO is also subject to compliance monitoring and enforcement of the Ontario market rules by the IESO's

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

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

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

c) Québec

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

The Régie de l'énergie, NERC and NPCC are parties to the September 24, 2014, *Agreement on the Implementation of the Québec Reliability Standards Compliance Monitoring and Enforcement Program* (the 2014 Agreement). Through the 2014 Agreement, the Régie de l'énergie retains the services of NPCC to monitor and assess the compliance of registered entities in Québec with the reliability standards adopted by the Régie with respect to electric power transmission in Québec.

On April 1, 2015, the Québec Reliability Standards Compliance Monitoring and Enforcement Program ("QCMEP"), which was developed jointly by the Régie de l'énergie, NPCC and NERC, came into effect. Together, the 2014 Agreement and the QCMEP detail the procedures and program for monitoring and enforcing mandatory electric power transmission reliability standards in Québec.

The Régie de l'énergie is a public body established by the *Act respecting the Régie de l'énergie* (the Act). Pursuant to its authority under the Act, the Régie de l'énergie, through a series of decisions in 2007, designated Hydro-Québec TransÉnergie (HQTE) as the Reliability Coordinator for Québec. In accordance with its mandate and as recognized in the 2009 Agreement, it is this entity that is responsible for the filing with the Régie de l'énergie for approval of reliability standards in Québec. HQTE has filed for the approval of certain reliability standards and the Régie de l'énergie has made certain reliability standards mandatory in Québec and is continuing proceedings to make additional reliability standards mandatory in Québec.

The Hydro-Québec companies, including Hydro-Québec TransÉnergie and Hydro-Québec Production have been subject to voluntarily compliance monitoring and enforcement, including comprehensive audits by NPCC. NPCC plans to continue to these voluntary compliance

monitoring and enforcement activities for any standards that have not yet been declared in effect by the Régie de l'énergie. Additionally, NPCC has and continues to proceed with its reliability assurance activities within Québec, including but not limited to events analysis, Reliability Assessment and Performance Analysis and compliance investigations, consistent with the NPCC *Amended and Restated Bylaws*.

d) New Brunswick

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

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

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

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

e) Nova Scotia

Nova Scotia Power Incorporated (NSPI), NPCC and NERC are parties to a May 11, 2010 Memorandum of Understanding regarding the approval and implementation of mandatory NERC reliability standards and NPCC Regional reliability criteria. Pursuant to the MOU’s terms,

NERC and NPCC filed standards and criteria with the Nova Scotia Utility and Review Board (NSUARB) for approval on June 30, 2010 and June 29, 2010, respectively. A decision from the NSUARB on both NERC and NPCC filings was rendered on July 20, 2011. Hence, the standards and criteria are mandatory in Nova Scotia and NSPI will be subject to the NERC compliance monitoring and enforcement program, as implemented by NPCC.

NPCC will conduct compliance and enforcement activities with respect to the standards and forward any non-compliance information and recommendations to the NSUARB. The NSUARB maintains the final authority with respect to enforcement in Nova Scotia and based on the recommendations from NPCC, may determine whether a violation has occurred and, if so, what remedial measures or non-monetary penalties should be imposed.

Regional Entity Division Functional Scope

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

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

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

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

2016 Key Assumptions and 2016 Goals and Key Deliverables

NERC and the eight Regional Entities collaborated in the development of a common operating model with complementary roles and responsibilities, an ERO Enterprise Strategic Plan, and a set of business planning assumptions, goals, metrics and key deliverables for the 2016 through 2018 period. The results from that collaboration are included as a set of Shared Business Plan and Budget Assumptions that will be contained in Exhibit A to the NERC 2016 Business Plan and Budget and may be referenced by the users of this document. NPCC activities that support ERO Enterprise Goals are detailed in each of the following program area sections.

2016 Overview of Regional Entity Division Cost Impacts

The proposed Regional Entity division assessment of \$14,345,510 to support the budget is an increase of 2.0% compared to the 2015 assessment of \$14,068,878.

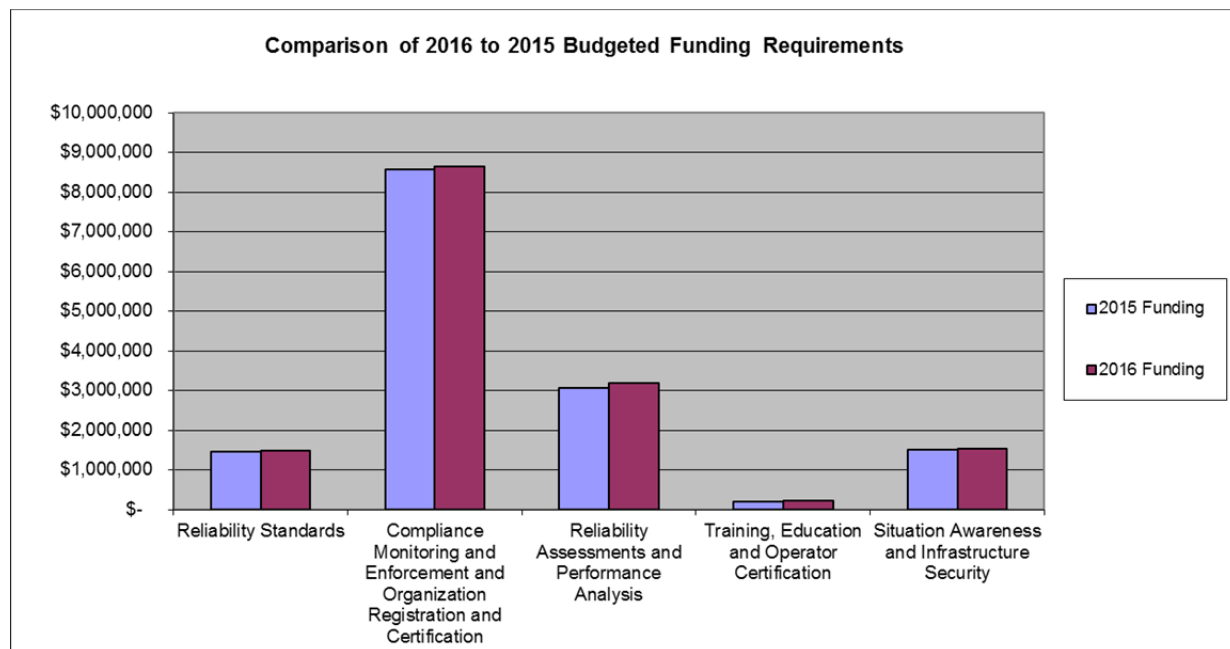
2015 Projections

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

Summary by Program

Program	Budget 2015	Projection 2015	Budget 2016	Variance	
				2016 Budget v 2015 Budget	Variance %
Reliability Standards	\$ 1,456,129	\$ 1,456,129	\$ 1,483,004	\$ 26,875	1.8%
Compliance Monitoring and Enforcement and Organization Registration and Certification	\$ 8,568,145	\$ 8,568,145	\$ 8,648,673	\$ 80,528	0.9%
Reliability Assessments and Performance Analysis	\$ 3,053,923	\$ 3,053,923	\$ 3,178,013	\$ 124,089	4.1%
Training, Education and Operator Certification	\$ 199,010	\$ 199,010	\$ 220,092	\$ 21,083	10.6%
Situation Awareness and Infrastructure Security	\$ 1,501,332	\$ 1,501,332	\$ 1,539,342	\$ 38,010	2.5%
Total	\$ 14,778,539	\$ 14,778,539	\$ 15,069,124	\$ 290,585	2.0%

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



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

Personnel Analysis

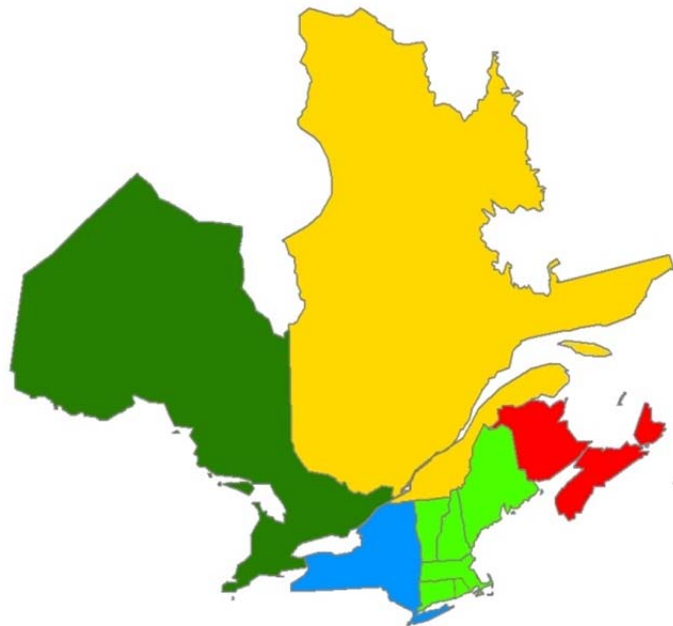
Total FTEs by Program Area	Budget 2015	Projection 2015	Direct FTEs 2016 Budget	Shared FTEs ¹ 2016 Budget	Total FTEs 2016 Budget	Change from 2015 Budget
REGIONAL ENTITY DIVISION						
Operational Programs						
Reliability Standards	2.93	2.93	2.00	0.93	2.93	0.00
Compliance Monitoring and Enforcement and Organization Registration and Certification	16.00	16.00	16.00	0.00	16.00	0.00
Training, Education, and Operator Certification	0.10	0.10	0.10	0.00	0.10	0.00
Reliability Assessment and Performance Analysis	5.83	5.83	4.90	0.93	5.83	0.00
Situation Awareness and Infrastructure Security	3.00	3.00	3.00	0.00	3.00	0.00
Total FTEs Operational Programs	27.86	27.86	26.00	1.86	27.86	0.00
Administrative Programs						
Technical Committees and Member Forums	0.50	0.50	0.50	0.00	0.50	0.00
General and Administrative	2.50	2.50	2.50	0.00	2.50	0.00
Information Technology	3.00	3.00	3.00	0.00	3.00	0.00
Legal and Regulatory	1.00	1.00	1.00	0.00	1.00	0.00
Human Resources	1.00	1.00	1.00	0.00	1.00	0.00
Accounting and Finance	1.00	1.00	1.00	0.00	1.00	0.00
Total FTEs Administrative Programs	9.00	9.00	9.00	0.00	9.00	0.00
Total FTEs	36.86	36.86	35.00	1.86	36.86	0.00

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

2015 Budget and Projection and 2016 Budget Comparisons

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

Section A – Regional Entity Division 2016 Business Plan and Budget



Section A — 2016 Business Plan

Reliability Standards Program

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

Program Scope and Functional Description

The NPCC Reliability Standards Program Area operates in accordance with NPCC’s filed and approved Delegation Agreement “Exhibit C”, and NERC Rules of Procedure Section 300. The program supports the ERO standards program area roles and responsibilities, the 2016 ERO Strategic Plan and 2016-2018 Shared Business Plan and Budget Assumptions. NPCC’s Reliability Standards Program Area provides supporting activities for the development of clear, concise, sustainable, high quality and technically sound mandatory “results based” reliability standards which provide for an adequate level of reliability in a timely and efficient manner. The primary objective of NPCC’s Reliability Standards Program Area is to support the development of ERO standards which establish “results-based” requirements for ensuring the bulk electric system is planned, operated, and maintained in a manner that minimizes risks of cascading failures, avoids damage to major equipment, is responsive to risks, or limits interruptions of bulk power supply. At a Regional level, the program develops, and maintains NPCC Regional Reliability Standards, ERO Standards Variances and ensures that NPCC’s Regional reliability criteria, contained in the form of Directories, are “not inconsistent with” any applicable NERC and Regional Reliability Standards, in accordance with the NERC Rules of Procedure. The NPCC Reliability Standards Program Area also supports and participates in the development, revision, and maintenance of NERC ERO Reliability Standards, initiates new Regional or continent-wide reliability standards through the NERC Standards Authorization Request (SAR) process when necessary, and provides a forum for the comprehensive review and improvement of existing and developing reliability standards. The NPCC Regional Standards Program Area also facilitates and assists with initiating SARs and Requests for Interpretation of ERO standards for the entities within the NPCC footprint. Many of the activities of the NPCC Reliability Standards Program Area are conducted and oversight provided by the NPCC Regional Standards Committee (RSC).

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

- Facilitating active participation of NPCC Regional industry stakeholders in all NERC Reliability Standards activities to promote the development of results-based, cost effective, clear and concise quality standards in a timely and efficient manner.
- Promoting awareness by holding Regional workshops to provide outreach and conducting Regional Standards Committee meetings to inform and educate stakeholders on standards being developed, modified or maintained.
- Internally and informally providing training to staff to facilitate the transition of new standards to compliance monitoring and enforcement.
- Regional coordination activities with Standards Program Areas from other Regions.
- Developing and maintaining Regional Standards as necessary to address Regional reliability related issues or risks and ensure those standards are “not inconsistent with” the NERC continent wide standards. These Regional standards contain requirements that are more stringent, add specificity to, or augment the NERC Continent-wide standards.
- Pursuing retirement of Regional Standards and promoting the reliability objectives of those Regional Standards into the NERC Continent-wide standards.
- Maintaining and abiding by the NPCC Regional Standard Processes Manual assuring compliance with all FERC filed documents with respect to standards development.

Funding Drivers and Reliability Benefits

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

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

2016 Key Assumptions

- Facilitate stakeholder review, comment on, and develop ballot recommendations or list of Regional issues, for all NERC Reliability Standards Projects under informal or formal development or revision prior to the end of ballots
 - NERC and NPCC benefit from NPCC’s Regional coordination consisting of a broad stakeholder review process and development of consensus recommendations to assure proposed standards will support international reliability and provide appropriate reliability objectives for the Continent-wide standards
 - Coordinate a comprehensive review of the results-based standards initiative processes and standards being implemented
 - Conduct and obtain training for performing Quality Reviews of standards at both the Regional level and to assist the ERO with analysis of the continent wide standards
 - Refine the NPCC triage process to assess posted standards and related material to ensure it is properly routed to and addressed by the appropriate NPCC technical or process resources.
- Participate in the northeast stakeholder efforts to develop Standards Authorization Requests (SARs) and Regional SARs to further improve standards in response to any potential inadequacies in reliability or to improve or correct standards
- Monitor and participate in the drafting/revision of key NERC Reliability Standards-CIP, Protections Systems, Balancing Control Performance, and Frequency Response, etc.
 - The NPCC monitoring of the development of standards helps to ensure reliability requirements that are clear, measureable, and enforceable and support international reliability in the Northeast
- Review reliability requirements of ERO and NPCC Regional Standards, NPCC Criteria and ensure consistency and alignment, remove redundancies, adopt Functional Model language and ensure requirements are “results based”
 - The unambiguous assignment of reliability requirements to specific functional entities benefits interconnection and continent-wide reliability
 - Participate in the continuing refinement of the Functional Model to capture evolving issues essential to reliability and new objectives in the industry, i.e. demand resource operator, planning functions, new activities yet to be identified such as those associated with Smart Grid, “Synchro-Phasor” technology, etc.
 - Participate in the continual improvement of the NERC standards development processes and initiatives such as the CEAP, SCPS and PMOS.
 - Contribute to the improvement of process related to NERC providing timely interpretations and tracking the status of in-process interpretations.
- Review all FERC orders and provincial regulations as they relate to the standards, their revision and adoption

- Northeast reliability benefits from careful analyses of regulatory and/or governmental orders or actions adopting standards to assure consistency in interpretation
- Review notices of proposed rulemakings (NOPRs) and coordinate and facilitate discussions related to reliability, compliance, and potential standards related actions
- Review final rulings that are issued and all FERC Directives for potential reliability related issues and opportunities to promote cost effective solutions
- Conduct and support regulatory and/or governmental provincial filings on a periodic basis based on individual provincial laws and requirements outlined in the Memorandum of Understandings for each province.
- Enhance NPCC standards website pages to provide uniform and clear information to the stakeholders while also providing the historical and archived information to support NERC and FERC approvals and expanding requirements

2016 Goals and Key Deliverables

The Reliability Standards program goals and objectives for 2016 are grouped into six categories:

1) Participate in the ERO Results-Based Standards Development

- Participate in the development and revision of the NERC three year work plan through review, commenting, and drafting activities
- Participate in the NERC Standards Committee strategic initiatives to provide a results-based, “defense in depth,” comprehensive set of standards, participate in standards 5 year review activities, and address any outstanding FERC Directives.
- Support the implementation of the NERC Board of Trustees (“BOT”) resolutions specifically, cost effectiveness, timely development, and quality of content attributes of new standards
- Participate in the development of ERO Reliability Standards within NERC’s three-year standards work plan with the emphasis placed on reducing the amount of new FERC Directives issues by closer coordination with the Commission staff
- Conduct thorough reviews of all NERC standards being developed or revised and coordinate comments for Northeastern North America driving consensus to the extent possible
- Support NERC cost effective analysis efforts
- Conduct thorough reviews of all industry requested NERC Formal Interpretations of standards and develop and promote the NERC Informal Guidance Process, a comprehensive process to deal with all standards related questions
- NPCC staff along with NPCC solicited Regional drafting team volunteers, will participate in the drafting of all ERO standards affecting or potentially affecting reliability in the Eastern Interconnection and provide support for review and development of comments and propose improvements with specific emphasis on CIP
- NPCC and its members will review and coordinate potential member’s comments on FERC preliminary staff assessments as appropriate
- Participate in ballots for ERO standards and provide consensus recommendations to the NPCC Members of the NERC Registered Ballot Body or provide a list of issues to allow the Members to cast a ballot based on Regional concerns prior to the end of the ballots
- Review and identify issues on FERC Notice of Proposed Rulemakings for any and all standards related issues as appropriate
- Coordinate and evaluate proposed standards utilizing NPCC’s technical task forces, working groups and committees

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- Educate and notify stakeholders and regulators about issues related to standards development through various means such as webinars and workshops
 - Provide outreach to industry trade groups to educate and drive consensus such as the North American Generator Forum and North American Transmission Forum
 - Provide a forum for NPCC review of proposed and posted standards related documents from the NERC Critical Infrastructure Protection Committee (CIPC) and NPCC Task Force on Infrastructure Security and Technology (TFIST) such as but not limited to whitepapers and technical guidelines
 - Participate in NERC’s Standards Committee standards prioritization process, to identify immediate standards needs and prioritization based on need
 - Participate in the NERC RISC by providing a Regional point of contact for all potential reliability related risks and gaps within the Northeast or as noted by NPCC stakeholders
 - Participate in and provide support to critical standards, such as CIP, Balancing Authority Controls, Voltage and Reactive Control, Real Time Tools, Frequency Response, etc.
 - Identify and initiate Regional Variances to the NERC Reliability Standards as soon as possible, allowing incorporation into the continent wide standard at its inception
 - Identify potential drivers for standards revisions based on revisions to the BES to a bright line criteria and any document revisions required as a result of consideration of the “Exception Process”.
 - Provide continued insights to NERC, based on NPCC experiences, regarding strategy for developing cost effectiveness analysis for standards and support activities to enhance this to identify “benefits” for the draft standards.
 - Provide support and assistance to the ERO, as needed, for conducting Quality Review activities on NERC continent-wide standards
 - Continue to develop new and innovative processes to better utilize the limited internal and external resources in the Region to enable sufficient technical review of posted standards and related materials
 - Support the ERO and the relationships with FERC and applicable provincial governmental authorities for standards development activities as necessary to accomplish the ERO’s strategic goals and objectives

2) Regional Standards Development

- NPCC does not anticipate developing further Regional Standards but reserves the right to do so if a reliability issue exists that is not appropriate for continent-wide development and also will perform clarifications as needed to existing approved Regional Standards.
- Conduct reviews for opportunities to include Regional Standards as Variances into the associated NERC continent wide standards as they individually undergo Enhanced Periodic Reviews

3) Standards Improvement

- Achieve NPCC Northeastern North American reliability goals and objectives by initiating, participating in, and efficiently completing standards related activities
- Leverage internet and web based tools functionality to ensure inter-Regional consistency and quality of Regional Reliability Standards
- Establish long-term strategy for standards improvement and initiate implementation
- Continually identify additional future Regional Standard opportunities if continent-wide standards are not an appropriate solution
- Ensure the topics addressed by the Reliability Standards parallel changing industry needs

- Participate in reliability metrics activities to identify potential measures for benchmarking of reliability to determine if an adequate level of reliability is being achieved
- Support and develop cost-benefit analysis activities to determine if any potential incremental increases in costs of implementing a standard have sufficient enough reliability benefit to implement that standard
- Identify any emerging interconnection wide reliability issues which may need standards solutions and forward to the NERC Reliability Issues Steering Committee.
- Identify opportunities to increase reliability through the revision of standards and their associated requirements

4) Business Practices Interface

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

5) Opportunities for Process Improvement

- Participate in any potential revision and redrafting of the NERC Standards Development Process to consider expedited standards development and cost effectiveness analysis and maintaining the ANSI accreditation for standards development
- Participate in the enhancement of the Single Portal on the NERC website to provide one stop shopping for stakeholders seeking answers to questions.
- Streamline and improve the Regional Standards program tools and IT based solutions
- Refine the records retention programs to ensure sufficient documentation exists for regulatory approvals
- Develop and implement document management systems to allow the efficient and effective revisions of documents, control of authorship and security of documents
- Identify improvements in process for feedback loops to ensure that event analysis, investigation lessons learned, and compliance issues involving violations are fed into the standards program area, as appropriate for review and potential consideration when revising standards
- Support the Functional Model Advisory Group activities to refine functions, tasks and responsibilities of applicable entities
- Solicit and provide outreach to FERC in future revisions to the Regional Standard Processes Manual

6) Communications

- Improve the notifications process to assure awareness of dates and proceedings of all standard development activities
- Strengthen the relationship with the industry's technical committees to ensure adequate input to standards development, such as the North American Generator Forum.
- Participate in NPCC and NERC workshops as necessary, to provided outreach, promote awareness and educate the industry on standards related activities
- Participate in consensus building activities and notification process(es) to engage stakeholders and provide notification to NPCC's subject matter experts for the need to

review standards. Provide the associated coordination for this review utilizing subject matter experts, both internal and external to the Regional Entity staff

- Promote the requirements and reliability objectives of the NERC standards as appropriate to the NPCC members of the NERC Registered Ballot Body in order to achieve consensus and support of beneficial standards and to promote the “One-Enterprise” model.

The NPCC RSC works with the individual NERC standards developers to participate in outreach to the NPCC Region and coordination of issues at each NPCC RSC meeting. NPCC RSC also assists in providing notifications and announcements to NPCC participants in the Northeastern North America NERC Registered Ballot Body of important applicable deadlines for ballot pool registration and for casting ballots thereby enhancing participation, promulgation of important information and increasing awareness

NPCC will also participate in the development and revision of standards as directed by FERC, Canadian provincial and other regulatory and/or governmental authorities. NPCC will support these efforts as needed and potential revision of the NERC Interpretation process. The standards scheduled for revision will be delineated in the 2015 – 2016 NERC Reliability Standards Development Plan, and will be ready to be reviewed and revised throughout 2016.

NPCC will provide support and coordination of NERC standards development activities as outlined in the 2015-2016 Reliability Standards Development Plan and the Standards Committee and ERO strategic goals and initiatives.

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

Resource Requirements

Personnel

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

Consultants and contracts

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

Reliability Standards Program

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

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

Compliance Monitoring and Enforcement and Organization Registration and Certification Program

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

Program Scope and Functional Description

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

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

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

Compliance Implementation, Registration and Certification

The Compliance Implementation and Registration sub-program is responsible for:

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

Compliance Monitoring Program

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

senior NPCC Staff. Findings include the identification of any possible violations. Contents and processing of audit and spot check reports are in accordance with NERC directives for reporting. Specific lessons learned are factored into the program to promote continuous improvement and are presented at workshops in conjunction with the Compliance Implementation Program. An annual comprehensive spot-check program is established based on the NERC and NPCC Risk Elements, NPCC's assessment of follow-ups on entities who have previously violated a Reliability Standard, follow-up on entities that have been involved in a significant system event, and other requirements which at the discretion of NPCC could pose a higher risk to reliability if not followed properly. The schedule for Spot Checks is not public.

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

Compliance Entity Risk Assessment

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

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

Compliance Investigation

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

Compliance Enforcement

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

Compliance Enforcement responsibilities:

- a) Issuing all Notices as described in the CMEP including the Notice of Possible Violation (NOPV), Notice of Find, Fix and Track (FFT) Treatment; Notice of Alleged Violation (NOAV), and the Notice of Confirmed Violation (NOCV);
- b) Conducting comprehensive enforcement investigations based on the facts and circumstances related to all possible violations of Reliability Standards, whether identified in an audit, a self-report, complaint, or other source, and determining whether further action is warranted;

- c) Reviewing, approving, submitting to NERC and tracking the progress of all mitigation plans /mitigating activities associated with confirmed violations;
- d) Coordinating settlement activities once they have been initiated and submitting settlement agreements to NERC for approval;
- d) Identifying and processing candidates for the FFT Process;
- e) Administer both the compliance exception process and the self-logging process for identified minimal violations;
- f) Participating in the Hearing Process by representing NPCC before the Hearing Body. Compliance Hearings would be conducted at NPCC under the supervision of a qualified, independent hearing officer contracted by NPCC;
- g) Issuing Remedial Action Directives when appropriate; and
- h) Implementing the risk-based compliance enforcement model including :
 - a. Notifying the registered entity, within 60 days on average, whether a non-compliance will proceed through enforcement, be treated as a compliance exception or additional information is needed (“Triage”);
- i) Utilizing the Compliance Exception Process; and
- j) Utilizing the Self-Logging Process; and
- k) Develop and monitor a set of enforcement metrics that support NERC’s Strategic Plan and Oversight Program

2016 Key Assumptions and Cost Impacts

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

- Regarding the Compliance Audit Program, Technical Feasibility Exception (TFE) reviews are conducted both on-site at the entity’s facility and at the NPCC offices when possible. TFE’s continue to be requested as entities replace and install new equipment/devices/components that meet the criteria set forth in Rules of Procedure Appendix 4D. Compliance estimates four on-site reviews will be performed in 2016.

- Decrease in audit costs reflects Risk Assessment activity that is the basis for entity engagement scoping. The Risk Assessment includes an assessment of an entity's Internal Controls which is used for future reduction in engagement scoping and frequency of engagements.
- Potential increases due to the newly identified role related to implementing the QCMEP in Quebec and the continuing role of implementing the NB CMEP in New Brunswick.
- The 2016 Business Plan projects no increases in Enforcement Processing activities over the 2015 Budget.
- The 2016 Business Plan projects the need for 1 Compliance Investigation. These Compliance Investigations are manpower intensive for NPCC staff (requiring allocation of more resources and potentially higher than normal costs)

2016 Goals and Key Deliverables

- Conduct 2016 CMEP consistent with a risk-based compliance monitoring and enforcement model, assessing Inherent Risk Assessment; conducting voluntary Internal Control Evaluation; and expanding the use of compliance exceptions and the self-logging program for disposition of minimal violations. The CMEP would monitor and enforce all applicable NERC Reliability Standards and applicable Regional Reliability Standards.
 - Continue to process identified violations as effectively as possible, including the timely identification of a violation and its disposition method (e.g. compliance exceptions; FFT; etc.), and the timely issuance of appropriate notification to the registered entity and NERC;
 - Continue to implement settlement process when applicable and send proper notifications to NERC and FERC and continue to enhance the settlement process by modifying existing practices and adopting new practices to reduce the duration of settlement negotiations without sacrificing the rigor and quality of the negotiated settlements;
 - Develop and analyze appropriate performance metrics that track settlement process duration and utilize results of analysis to further enhance process.
 - Conduct necessary Hearings related to resolution of outstanding disputes regarding violations and/or sanctions. Send results of hearings to NERC and FERC.
- Implement compliance responsibilities identified in the approved Canadian MOUs;
- Annual report to NERC and Régie on NPCC implementation of QCMEP
- Annual report to NERC and New Brunswick Electric Utility Board (NBEUB) on NPCC implementation of NB CMEP.
- Review and revise NPCC Compliance Registry based on FERC approved risk-based approach ;
- Evaluate CMEP and Canadian entity compliance program implementation with the objective of establishing a long-term strategy for compliance improvement, and initiate the implementation of the long term strategy;
- Provide NPCC Regional Entity input, through participation in appropriate NERC compliance committees, on policy and implementation issues related to compliance and enforcement including the development of compliance elements for all new or revised NERC Reliability Standards;

- Provide required information to NERC on a timely basis including reporting of alleged violations and confirmed violations
- Track the progress of, report status of, and approve mitigation plans and mitigating activities;
- Conduct 2016 Compliance Engagement Schedule based on risk to the BES and number of registered entities and promote RAI initiatives by:
 - Utilizing the Audit Checklist and Auditor’s Handbook for all on-site and off-site audits
 - Preparing an Inherent Risk Assessment for all scheduled engagements and Internal Control Assessment for all entities that volunteer for one;
- On-site CIP audits may be combined with scheduled 2016 on-site audits;
- Assure that NPCC Staff is trained to conduct Entity Risk Assessment and CMEP engagements including CIP Compliance Audit training;
- Assure that NPCC Staff is trained to conduct Certification of entities intending to Register as BA, RC or TOP for the first time, or Certification Reviews of changes by existing BAs, RCs or TOPs that meet the criteria requiring a Certification Review;
- Continue to implement compliance reform consistent with a risk-based approach by being an integral participant in committees and workgroups that are involved in the development of polices elated to the implementation of a risk-based compliance and enforcement model;
- Continue to expand the utilization of compliance exception and self-logging, as it relates to the processing of minimal violations;
- NPCC will collaborate with NERC to promote better coordination, planning, delivery and management of training efforts across the enterprise through a unified learning management system (LMS), without adversely impacting region-specific training requirements;
- Continue to implement physical security outreach and cyber security outreach by visiting registered entity sites to perform an assessment of their physical security, evaluate their cyber security and supply recommendations for improvements;
- Enhance the CDAA to expand its capabilities from both the registered entity perspective and the NPCC Compliance staff perspective;
- Conduct 2016 Compliance Workshops and interim information sessions for registered entities as necessary as a part of Training and Education program area.
- Continue to promote practices to enhance the benefits of the self-reporting of violations by the registered entity. This could include the emphasis on the benefits of a registered entity improving its internal processes used for identifying and submitting self-reports improvement in the way Regional Entities process self-reports and the streamlining and standardizing of the amount and type of data needed to evaluate a self-report.

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

Resource Requirements

Personnel

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

Consultants and contracts

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

Compliance Monitoring and Enforcement and Organization Registration and Certification Program

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

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

Reliability Assessment and Performance Analysis Program

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

Program Scope and Functional Description

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

- Reviewing the adequacy of the NPCC systems to supply load considering forecast demand, installed and planned supply and demand resources and required reserves; and,
- Assessing the impact of planned transmission and resource additions or modifications on NPCC system reliability.

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

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

2016 Key Assumptions

Key focus area activities include:

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

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

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

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

In addition, NPCC supports:

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

Definition of the Bulk Electric System (BES)

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

Eastern Interconnection Reliability Assessment Group

The primary function of the Eastern Interconnection Reliability Assessment Group (ERAG) is to augment reliability of the bulk-power system in the Eastern Interconnection through periodic reviews of generation and transmission expansion. These assessments are conducted by the ERAG Steering Committees. The assessment-related activities indicated for the ERAG Management and Steering Committees below, are done in support of ERO Goal 4a. ("4a. Risks

are identified and prioritized based on reliability impacts, cost and practicality of assessments, projected resources, and emerging issues.”) In addition, ERAG has the responsibility to develop the annual set of seasonal and future steady state and dynamic simulation base cases for use by the Regional Entities and other industry groups in the Eastern Interconnection. This is done through the ERAG Multi-Regional Modeling Working Group (MMWG). The base case compilation and development-related activities indicated for the ERAG Management and MMWG below, are done in support of ERO Goal 4d. (“4d. Reliability models and data accurately represent system behavior and are shared among stakeholders.”) NPCC participates in the ERAG activities as one of the six Eastern Interconnection Regional Entities.

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

Management Committee Activities

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

Multi-Regional Modeling Working Group Items

- ✓ Complete the steady state and dynamic simulation base case data compilation and development for the 2016 series of cases. This will include 12 steady state base cases and 8 dynamic simulation base cases;
- ✓ Check and confirm that the dynamic model data passes all applicable checks and acceptance criteria. Include 60 second steady state simulation of each case to detect numerical errors; and,
- ✓ Apply changes to the MMWG dynamics case so they are available for interconnection dynamics studies.
- ✓ Incorporate dispatch information into the future and seasonal ERAG MMWG base cases so that the dispatches are more closely aligned with economic dispatch practices;
- ✓ Determine how the Regional MMWG case development processes will change due to the use of the new web-based System Dynamics Data Base program;

- ✓ Continue the review of the NERC governor survey information to assess how to revise the governor-turbine plant control models at most generators. Recommend the necessary changes in the models for specific generators;
- ✓ Continue the effort to use NERC Governor Survey and actual multiple frequency drop event analysis to make necessary changes to the modeling of governor-turbine control systems to achieve frequency response that more closely reflects actual response during system frequency deviation events;
- ✓ Apply MMWG base case non-disclosure agreement process so that MMWG cases continue to have sufficient protections in place for use and transmittal of confidential data and information.
- ✓ Verify that procedures in the MMWG manual are followed;

System Assessments Items

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

NERC

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

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

As well as:

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

2016 Goals and Key Deliverables

Task Force on Coordination of Planning

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

TFCP activities include, but are not limited to:

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

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

Key TFCP Reliability Assessment and Performance Analysis Deliverables

- ✓ Coordinate activities related to reactive power and voltage control practices, which includes under-voltage load shedding (UVLS) with the Task Force on Coordination of Operation and the Task Force on System Studies to ensure that developments in the NERC Planning Committee and its Subcommittees are addressed.
- ✓ Coordinate the development of additional Criteria as necessary, and track any new and developing standards through the Regional Standards Committee (RSC).
- ✓ Monitor the development of Bulk Power System (BPS) Regional Standard.
- ✓ Monitor the actions of the NERC Systems Analysis and Modeling Subcommittee (SAMS) in the areas of resource adequacy, system protection and system control.
- ✓ Oversee the Revised A-10 BPS Implementation Plan (dated December 1, 2009).
- ✓ Oversee and evaluate the annual NPCC Long Range Adequacy
- ✓ Overview (LRAO) and associated NERC ProbA review.
- ✓ Evaluate and approve Area Transmission Adequacy Reviews.
- ✓ Coordinate, monitor, review, and make recommendations on the retirement of existing in-service Special Protection Systems (SPS); and the implementation of proposed new or modified Special Protection Systems.

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

Task Force on System Studies

The primary mission of the NPCC Task Force on System Studies (TFSS) is to provide active overall coordination of system studies of the reliability of the interconnected bulk power systems and for the review of certain NPCC documents. In addition, the TFSS provides technical support regarding operating expertise to the NPCC Regional Standards Committee and the NPCC Compliance Committee as requested.

TFSS activities include, but are not limited to:

- Participating with the Task Force on Coordination of Planning, the Task Force on Coordination of Operation, and the Task Force on System Protection in reviews of the NPCC Reliability Directory No.1 and other NERC Reliability Standards and NPCC criteria, guidelines, procedures and documents which provide for the uniform implementation, interpretation and monitoring of conformance to criteria, guidelines and procedures related to system studies.
- Conducting NPCC Balancing Authority Area Reviews, in accordance with NPCC Reliability Directory No. 1, based on material presented by the Balancing Authority Areas. These reviews will assess the impact of planned transmission and resource additions or modifications on system reliability, and determine the Balancing Authority Area's conformance with the NPCC Basic Criteria.
- Reviewing and approving changes to Balancing Authority Areas' lists of bulk power system elements, in accordance with the *Classification of Bulk Power System Elements* (Document A-10). Annually review and update the NPCC BPS List.
- Reviewing and classifying new and modified Special Protection Systems, in accordance with NPCC Reliability Directory No. 7. Annually reviewing and updating the NPCC Special Protection System List.
- Conducting such load flow, transient stability, and other studies as required analyzing the overall reliability of the planned bulk power transmission systems of NPCC and the

interconnections between NPCC and other Regional reliability organizations. As a part of this effort, analyze potential inter-Area effects of Special Protection Systems.

- Conducting analytical studies as appropriate to support the coordination of system planning, system operation and system protection in NPCC.
- Maintaining, through the SS-37 Working Group, a library of load flow base cases and associated dynamics data, for use in and support of Balancing Authority Area Reviews, overall transmission assessments, operational studies, inter-Regional studies, etc. Coordinate this effort with the NERC inter-Regional base case development process.
- In conjunction with other Task Forces, reviewing major system disturbances to ascertain the adequacy of the interconnected systems. Also, reviewing any associated recommendations for system modifications and considering the need for criteria changes.
- Identifying and recommending improved system study techniques. This includes, but is not limited to, the following:
 - improved techniques and models for power system simulation;
 - improved techniques for power system Reliability Assessment;
- Conducting a periodic review of the adequacy of the NPCC underfrequency load shedding program. Annually reviewing and updating the NPCC underfrequency load shedding database.
- Maintaining a listing and monitoring the status of major transmission and generation projects within NPCC.
- Maintaining liaison with other NPCC Task Forces and report to the Reliability Coordinating Committee as required.
- Monitoring the work of industry research and development organizations such as the IEEE, Canadian Electricity Association, Electric Power Research Institute, CIGRE and other technical organizations.

Key TFSS Reliability Assessment and Performance Analysis Deliverables:

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

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

Task Force on System Protection (TFSP)

The purpose of the NPCC Task Force on System Protection (TFSP) is to promote the reliable and efficient operation of the interconnected bulk power systems in Northeastern North America through the establishment of directories, criteria, guidelines, and procedures and coordination of design, relative to the protection associated with the bulk power systems. In addition, the TFSP provides technical support regarding operating expertise to the NPCC Regional Standards Committee and the NPCC Compliance Committee as requested.

The Reliability Assessment and Performance Analysis activities of the TFSP include, but are not limited to:

- Assessing proposed protection systems and special protection systems in accordance with NPCC Reliability Directory No. 4 and No. 7.

- Reviewing and analyzing the performance of protection systems following selected major power system disturbances and events, inside as well as outside NPCC in accordance with NPCC Reliability Directory No. 4. Issue recommendations for changes to NPCC Documents, as appropriate.
- Providing technical advice on protection issues to NPCC and coordinate with other Task Forces on the application of Intelligent Electronic Devices (IEDs) that include functions related to energy management systems in addition to their protective functions, in order to safeguard the integrity of the protective functions.
- Through the SP-7 Working Group, review, on a quarterly basis all protection system (including special protection system) misoperations reported to NPCC.
- Reviewing and assessing significant protection issues of common interest or informational value.
- Reviewing and assessing regulatory and industry based documents as they relate to system protection.
- Maintaining an effective liaison with North America groups working in the protection areas (for example: NERC System Protection & Control Subcommittee.)
- Exchanging information with other power pools, Regional Reliability Councils, Regional Transmission Organizations and other industry groups on matters concerned with system protection.
- Identifying the need for special studies and new documents, recommend action to the Reliability Coordinating Committee.

Key TFSP Reliability Assessment and Performance Analysis Deliverables:

- ✓ Assess proposed protection systems and special protection systems for compliance with Directory No. 4 and Directory No. 7
- ✓ Review and analyze the performance of protection systems of power system disturbances, lessons learned, and events, brought to the attention of the Task Force, inside as well as outside NPCC in accordance with *Procedures for Task Force on System Protection Review of Disturbances* (Document C-30). Issue recommendations for changes to NPCC Documents and lessons learned, as appropriate. Provide support to the NERC Event Analysis Coordinating Group as required.
- ✓ Provide formal review and response for all NERC lessons learned as requested by the RCC. Issue recommendations for changes to NPCC Documents, as appropriate.
- ✓ Participate or serve as lead Task Force in the implementation of applicable Regional Reliability Standards.
- ✓ Participate as required in the ongoing development and submission of NPCC inputs/comments into the development of protection related NERC Reliability Standards.
- ✓ Maintain ongoing log of protection relay failures
- ✓ Through the SP-7 Working Group, review protection system misoperations as they occurred in the NPCC Region and participate in providing the NPCC input for NERC Metric ALR4-1 on protection misoperations.

- ✓ Review mitigations and/or progress reports for BPS Risk Reduction Implementation at each meeting and annually report to the RCC on the status of this implementation. Oversee NPCC implementation of the new NERC SPS/RAS Operations/Misoperations Reporting Template.

Task Force on Coordination of Operation

The NPCC Task Force on Coordination of Operation (TFCO) facilitates the coordination of operations among the NPCC Reliability Coordinator areas and adjacent NERC Regions to enhance the reliability of the bulk power system. In addition, the TFCO provides technical support regarding operating expertise to the NPCC Regional Standards Committee and the NPCC Compliance Committee as requested.

The activities of the NPCC TFCO include, but are not limited to:

- Conducting seasonal reviews of the overall reliability of the generation and transmission systems in NPCC, and coordinating these efforts with parallel assessments conducted by the NPCC Task Force on Coordination of Planning and by NERC. Reviewing the operational preparedness of NPCC and recommending possible actions to mitigate any potential problems identified for each operating period.
- Reviewing operations and system disturbances and providing any necessary follow-up, including the recommendation of remedial or mitigating actions.
- Facilitating the reliable operational integration of new bulk power system facilities.
- Coordinating the development of operating NPCC requirements and procedures affecting the reliability and operability of the bulk power system in coordination with, and as directed by, NERC and NPCC.
- Promoting and sponsoring inter-Balancing Authority Area and inter-Regional studies to enhance reliability and operational effectiveness of the bulk power system.
- Providing coordination of operating issues with other NPCC Task Forces and other Regions.

Key TFCO Reliability Assessment and Performance Analysis Deliverables:

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

NPCC Regulatory/Governmental Affairs Advisory Group

The purpose of the NPCC Regulatory/Governmental Affairs Advisory Group is to promote NPCC interaction and coordination with Federal/State/Provincial governmental and/or regulatory agencies on a coordinated Regional basis, and identify and develop policy input for NPCC and Northeast Regional governmental and/or regulatory bodies.

The NPCC Governmental/Regulatory Affairs Advisory Group provides a forum where industry and governmental and/or regulatory representatives can exchange views and strive to develop consensus policy recommendations on reliability issues specific to the NPCC Region (Northeastern United States and Eastern Canada) and share actionable information among NPCC, NERC and other related governmental and/or regulatory agencies related to Regional energy and reliability matters.

Based on the portion of professional/technical staff time and other resources devoted to Reliability Assessment and Performance Analysis, NPCC estimates that it will expend 21 percent of its resources on these activities.

Resource Requirements**Personnel**

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

Consultants and contracts

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

Reliability Assessment and Performance Analysis Program

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

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

Training, Education, and Operator Certification Program

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

Program Scope and Functional Description

The NPCC Training, Education, and Operator Certification program supports NERC Rules of Procedure Section 900. The program provides education and training necessary to understand and operate the bulk electric system. The target audience of the program is bulk power system operating personnel - including system operations personnel, operations support personnel (engineering and information technology), supervisors and managers, and training personnel. NPCC staff training and development is incorporated within each respective program area.

Training Program Background and Description

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

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

Funding Drivers and Reliability Benefits

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

- to system operation practices. PJM system operators and trainers are also invited to and normally attend and participate in these seminars.
- Seminar attendees also receive Continuing Education Hours (CEHs) and operator trainers from each RC / BA area utilizes the seminar content by including it in their internal training programs to provide CEHs to all system operators
 - The seminars help to improve system operation coordination through better contact among operators
- Continually review and revise the curriculum of the training seminars to better emphasize NERC standards, Regional Standards and business practices, NPCC wide-area operations and Regionally-specific criteria and procedures.
 - Enhance the system operator's awareness and knowledge of the standards, criteria and procedures they apply in real time operation.
 - Provide more sharing of new training approaches, exchange of information on internal methods of system operator selection, training material and training sessions.
 - Enhance efficiency and cost savings in the training programs in the NPCC RC / BA areas
 - Provide a forum among NPCC RC/BA areas for sharing of approaches to meet the requirements of the NERC PER standards. The sharing of approaches used by some NPCC Areas to address any changes needed to existing system operator training programs due to PER-005-2 requirements is valuable to CO-2 Working Group members.
 - Determine what changes would be needed for the NPCC Reliability Coordinator / Balancing Authority Areas to meet proposed expanded Systematic Approach to Training (SAT) requirement for operations support staff in PER-005-2.
 - NPCC will conduct two Standards and Compliance workshops in 2016, for NPCC Stakeholders, for the express purpose of providing the most current and applicable information related to the development of NERC and Regional Reliability Standards and the implementation of the Compliance Monitoring and Enforcement Program (CMEP).

2016 Key Assumptions

NPCC regularly conducts seminars as well as Spring and Fall Standards and Compliance workshops specifically designed, primarily through the conduct of targeted breakout class room sessions and presentations on current industry related activities, to provide for the most efficient exchange of information between the NPCC Compliance and Standards Staff and the NPCC Stakeholders. Presentations in the past have been conducted by FERC, NERC and Stakeholder representatives in addition to NPCC Staff members. To supplement these workshops, NPCC is also considering expanding the use of on-line webinars. These webinars will focus on a specific topic pertinent to developments related to compliance program implementation, standards development or technical topics.

NPCC also regularly conducts spring and fall System Operator Seminars. These seminars involve system operators from the NPCC RC/BA Areas and PJM. These will be held in early May and early November.

With the exception of meeting expenses, it is proposed that the NPCC resources to support Training and Education will remain virtually unchanged for the calendar year.

2016 Goals and Key Deliverables

- Prepare and conduct the 2016 spring and autumn NPCC System Operator Seminars
- Coordinate the effects of the PER-005-2 expanded SAT training requirements within the NPCC RC/BA Area programs.
- Expand the content of the Reliability Coordinator training programs, to meet the requirements generated by PER-005-2, as necessary.
- Continue collaboration and sharing of the intended RC/BA approaches, experiences and materials to task identification and training development associated with NERC Standard PER-005-2. Create and expand the restricted-access NPCC repository of training resources and learning verification activities addressing fundamental power system topics, training methods and operation procedure training exercises, which may be shared as elements of operator training in compliance with NERC Standard PER-005, “System Personnel Training”.
- Participate in NERC Staff Training Group activities and provide NPCC input to the development of training policies by this group.

Based on the portion of professional/technical staff time and other resources devoted to training, education, and operator certification, NPCC estimates that it will expend 1 percent of its resources on this activity.

Resource Requirements**Personnel**

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

Training, Education, and Operator Certification Program

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

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

Situation Awareness and Infrastructure Security Program

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

Program Scope and Functional Description

The Situation Awareness and Infrastructure Security Program is the combination of near real time awareness of conditions on the bulk power system with the programs necessary to increase the physical and cyber security of the electricity infrastructure, including the operation and maintenance of tools and other support services for the benefit of Reliability Coordinators and the system operators within the registered entities. Maintaining the real-time awareness of conditions on the interconnected bulk power systems by the NPCC Reliability Coordinator is critical to maintaining reliable operation within NPCC, including the communication of information concerning system conditions and abnormal events among the neighboring system operators responsible for the reliable operation of the bulk power systems. When a disturbance does occur, it is critical to use the event as a learning opportunity and provide a forum for the active coordination of reliability and operation among the NPCC Reliability Coordinator areas and neighboring NERC Regions to enhance the reliability of the interconnected bulk power system through the lessons to be learned which can be gleaned from such an event.

Event Analysis Program

NERC and the industry follow three avenues in the analysis of a disturbance: the identification of lessons to be learned, a formal cause code analysis and a review of applicable standards

The Event Analysis Program recognizes that many events which occur on the bulk power system beyond those identified through NERC Reliability Standard EOP-004-2, "Event Reporting," can have varying levels of significance to the electric system, providing otherwise unrealized lessons to be learned from these events and the trending of such events to identify possible reliability concerns. By integrating a "bottom-up" approach to a disturbance review within the framework of the NERC Event Analysis Program, consistency, comparability, flexibility and timeliness in the event analysis process will be promoted by NPCC, the registered entities and NERC in a collaborative initiative. Upon the identification of an event, the goal of the Event Analysis Program is to:

- identify what transpired;
- categorize the event within the NERC Event Analysis Program;
- establish the sequence of events;
- understand the essential root causes of the event;
- identify recommendations or corrective actions; and

- develop and disseminate to the industry lessons to be learned so that the operational reliability of the bulk power system can be further enhanced.

In assessing any system event, it is recognized that, if the timely dissemination of lessons learned from an event or disturbance is to be realized, any potential compliance implications associated with an event must be addressed and dismissed. Throughout an event analysis effort, to make this process successful and complete, and to solidify the “bottom-up” approach, registered entities are encouraged to establish a liaison between the event analysis and compliance functions internal to the registered entity during the event analysis process. This serves to facilitate the development of a registered entity compliance self-assessment report which will perform a sufficiency review of the reliability standards deemed applicable to the event, assisting in the self-reporting of possible violations should any be discovered.

To complete this effort, the entity, the Region and NERC staff will collaborate to assess the NERC Event Analysis Report and perform a formal cause code analysis, identifying a root cause and complementing any lessons learned gathered from the disturbance.

The adoption by NERC of the Event Analysis Program brings clarity and certainty about what system events are relevant to analyze and to what level of detail, targeting potential risks to the reliability of the bulk power system for detailed and in depth analysis; only concise and succinct reviews are desired for more minor events. It also delineates the expectations of roles and responsibilities of the registered entities, NPCC and NERC in a uniform review of system disturbances by the industry, and, ultimately, the program promotes the timely development and dissemination of valuable lessons learned to the industry. The identification and tracking of emerging common risks through the assessment of events will further distinguish trends which may be of concern to reliability. By rigorously pursuing the lesser events on the system and learning from these disturbances, the larger event can be avoided or mitigated.

NPCC Staff works step-by-step with the registered entity in the total event analysis process, permitting the entity to assume the primary role in the initial analysis, the development of lessons learned which may benefit the industry and the Standards sufficiency review.

Situational Awareness

Operational Status

On an ongoing, but non-real time basis, NPCC monitors the operational status of the bulk power system and coordinates normal and pre-emergency communication, awareness and assistance in addition to the same during an emergency among the Reliability Coordinators within NPCC and its neighboring RCs: the New Brunswick Power Corporation, Hydro-Québec TransÉnergie, the ISO New England, Inc., the New York ISO and the Independent Electricity System Operator in Ontario. The industry is notified of significant bulk power system events that have occurred in one Reliability Coordinator Area, and which have the potential to impact reliability in other NPCC Reliability Coordinator Areas or Regions external to NPCC. These events include contingencies on the bulk power system, potential shortfalls of operating reserve, operating problems, potential security threats and potential threats or disruptions to the cyber systems.

The “NPCC Emergency Preparedness Conference Call Procedures” provide a mechanism that enables the Reliability Coordinator in NPCC, and, as circumstances may require, their counterparts in neighboring Regions, to rapidly communicate the status of current operating

conditions, to facilitate the procurement of assistance during emergency conditions and to identify potential physical or cyber threats to the system.

Items of particular concern that can be discussed during the calls may include, but are not limited to, the following: anticipated weather conditions critical to the system or systems experiencing or projecting resource deficiencies; load forecast; largest first and second contingencies; potential need for emergency transfers; operating reserve requirements and expected available operating reserve capacity deficiencies; potential fuel shortages or potential fuel supply disruptions which could lead to energy shortfalls; identified or projected voltage conditions; status of short term transactions; additional capability available within four hours and additional capability available within twelve hours; generator outages; significant transmission outages; expected transfer limits and limiting elements; anticipated implementation of NERC Transmission Loading Relief (TLR); changes in the status of relay protection systems; arming of special protection systems not normally armed; and/or the application of abnormal operating procedures.

NPCC has also established a daily conference call to serve as a complement to the NPCC Emergency Preparedness Conference Call. The participants of the call are the Reliability Coordinators within NPCC and its neighboring RCs, the Midwest ISO and PJM. The conference call is implemented through a bridge, the initiation of the call quickly ringing all pre-selected telephones simultaneously. The goal of the call is to alert all Reliability Coordinators of emerging problems. If no system difficulties are anticipated for the day, no unnecessary information is to be discussed. Subjects for discussion are limited to credible events which could impact the ability of an entity to serve its load and meet its operating reserve obligations or would impose a burden to the interconnection, including the following: Projected Load; Adverse Weather; Operating Reserve; Generation; Transmission; and Sabotage. If conditions worsen in the course of the day, the NPCC Emergency Preparedness Conference Call will be implemented.

NPCC also monitors the status of the bulk power system through the NERC Situational Awareness-FERC, NERC, Regions (SAFNR) initiative, a near real-time operating display for the United States portion of the Reliability Coordinators footprints of North America. Transmission voltage levels of 230 kV and above are displayed, and the tool provides the ability to “drill down” to detailed bus information, including generation outputs and bus voltages.

To ensure the capability for continued voice communications among NPCC and its Reliability Coordinators, a satellite telephone network was also established, and it is tested on a monthly basis. This back-up communications system will function in the event of a collapse of the Public Switched Telephone Network (PSTN), permitting continued cross-border voice communications among the Canadian Reliability Coordinators of NPCC and the Reliability Coordinators in the United States.

Critical Infrastructure Objectives

NPCC’s critical infrastructure objectives are defined within the scope of the NPCC Task Force on Infrastructure Security & Technology, (TFIST) and include, but are not confined to:

- Providing a forum for NPCC review of proposed and posted documents from the NERC Critical Infrastructure Protection Committee (CIPC)
- Representing and advocating NPCC’s position in the activities of NERC groups involved in the development and/or implementation of physical and cyber security

NPCC’s 2016 critical infrastructure goals and objectives, supporting ERO Goal 4.c.:

- Oversee the implementation of version 5 of the CIP Standards
- Monitor the Homeland Security Information Network (HSIN), ES-ISAC, Critical Information Protection Information Sharing (CIPIS), NERC Alerts and Canadian Information Sharing and share information with CO-8
- Coordinate Cyber Protection activities, discussions and hold workshops as may be required to maintain Cyber Security of BES Cyber Assets.
- Provide continued support and participation in NERC's Critical Infrastructure Protection Committee (CIPC)
- Review and submit comments on NERC proposed Reliability Standards, modified Reliability Standards, proposed Guidelines and modified Guidelines related to Infrastructure Security and Technology
- Keep current on all governmental agencies regarding applicable security recommendations and requirements, and other applicable security and reliability recommendations and keep the RCC and its committees appropriately informed, e.g. Sector Specific Plan.
- Develop and maintain levels of expertise in those areas of concern to the task force through activities such as periodic workshop presentations, seminars, and meetings, open to the general NPCC membership
- Regarding the Cross Border Emergency Telecommunications recommendation
 - Continue to annually report to RCC on this testing
 - Continue to support CO-8's monthly testing

System Operations Security Objectives

NPCC's system operations security objectives are defined within the scope of the NPCC Task Force on Coordination of Operation (TFCO) and include, but are not confined to:

- Coordinating inter-Regional pre-emergency actions in the event of a threat to the security of the Northeastern North American bulk power supply system
- Assisting in the development of real time operating tools assuring cyber security concerns are addressed

2016 Key Assumptions

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

2016 Goals and Key Deliverables

- Monitor the reliable implementation of version 5 of the Cyber Standards.
- Work directly with applicable NPCC Task Forces to provide an in depth assessment of Lessons Learned unique to the NPCC members and NPCC criteria.
- Assist NERC in the development of a data base which will provide a common repository for event reporting and data.
- Establish a mechanism for the dissemination of the detailed Event Analysis Report to the broad industry.
- Assess and implement the Lessons Learned generated by the GridEx III wide-area exercise

Based on the portion of professional/technical staff time and other resources devoted to situation awareness and infrastructure security, NPCC estimates that it will expend 10 percent of its resources on this activity.

Resource Requirements

Personnel

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

Consultants and contracts

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

Situation Awareness and Infrastructure Security Program

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

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

Administrative Services

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

Program Scope and Functional Description

Administrative services support the previously identified five program areas of: reliability standards; compliance monitoring and enforcement and organization registration and certification; training, education, and operator certification; reliability assessment and performance analysis; and situation awareness and infrastructure security. Administrative services consist of: technical committees and members' forums; general and administrative; legal and regulatory; information technology; human resources; and finance and accounting.

Methodology for Allocation of Administrative Services Expenses to Programs

NPCC total overhead expenses, such as office rent and office costs, will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.

Administrative Services

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

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

Technical Committees and Member Forums

Program Scope and Functional Description

The success of the NPCC programs depends on the active and direct volunteerism and participation of its members. The stakeholders are the source of expertise in the industry. To promote the reliable and efficient operation of the interconnected bulk power systems in Northeastern North America, NPCC invites high level policy makers from Federal, Provincial and State regulatory and/or governmental authorities and senior executives within NPCC and NERC to identify and discuss emerging issues related to the reliability of the NPCC Region.

2016 Key Assumptions

- NPCC's standing committee and subgroup structure for effective stakeholder involvement will continue in 2016
- NPCC will continue to utilize methods to encourage active involvement in its Regional programs that require less stakeholder travel and face-to-face meetings, as the economy improves in 2016
- NPCC will continue to invest in technology and innovation to allow efficient collaboration on technical issues related to reliability

2016 Goals and Key Deliverables

The 2016 NPCC General Meeting provides an opportunity for NPCC Members to meet high level policy makers from Federal, Provincial and State regulatory and/or governmental authorities and senior NERC and NPCC executives to discuss topics related to the reliable planning and operation of the power system, including consideration of emerging reliability, critical infrastructure and environmental issues.

2016 Public Information Committee Goals and Objectives

The objective of the NPCC Public Information Committee is to highlight and summarize NPCC activities and accomplishments in the past year, disseminate and coordinate the appropriate release of information to the media, respond to related requests for information, and coordinate with related NPCC Area, NERC media and public information activities. Activities anticipated include, but are not limited to:

- Conducting the Media Event – release of the Summer 2016 NPCC Reliability Assessment
- Participation in NERC Regional communication initiatives:
 - Regional communications teleconferences as required
 - Coordination of Emergency or Blackout communications plans
 - Coordination with other NERC activities as required (i.e., situation awareness, event analysis, reliability assessments, etc.)

Resource Requirements

Personnel

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

General and Administrative

Program Scope and Functional Description

The NPCC general and administrative function provides executive management of the corporation, management of NPCC office, and other administrative support programs.

NPCC total overhead expenses, such as office rent and office costs, will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.

Resource Requirements

Personnel

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

Legal and Regulatory

Program Scope and Functional Description

NPCC's professional legal services provide counsel to the President and CEO, Board of Directors, Vice President and COO, Treasurer, General Counsel and staff on a wide range of legal and regulatory matters including legislation, corporate law, code of conduct, confidentiality, governance, employment law, tax matters, contract law and other areas affecting NPCC. In-house counsel provides legal advice to advance significant corporate policy and strategic planning initiatives and also provide legal support to other program areas on matters arising in connection with the performance of NPCC's delegated functions. In-house counsel draft agreements and pleadings and provide interpretations of relevant statutes, regulations, court opinions, and regulatory decisions of FERC, state agencies and provincial authorities. Outside counsel, as necessary, reviews items filed with the governmental agencies for legal sufficiency, maintains relationships with U.S. and Canadian jurisdictions and provides contract review.

Resource Requirements

Personnel

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

Professional Services

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

Information Technology

Program Scope and Functional Description

NPCC's Information Technology services ensure information assets and the environment in which they operate are secure and in conformance to NPCC IT Policies and Procedures. NPCC maintains an offsite backup server for continuity of essential operations in the event that its primary location is unavailable.

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

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

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

2016 Key Assumptions

- Continue to develop and maintain the compliance portal through collaboration with other Regional Entities and NERC (CUG).
- Support the Event Analysis program through continued participation in the tools used for the tracking and analysis of system events and identification of better practice elements.
- Support the Bulk Electric System Exception Process "BEP" to enable and facilitate tracking and processing of exceptions submitted. Maintenance of the BESNET support services such as updates, patching, coordinating issues with NERC.
- Support Cyber Security Reviews done by compliance to provide advisory role during those reviews.

2016 Goals and Key Deliverables

Responsibilities encompass a variety of complex technical, administrative, and supervisory work in the development, installation, and maintenance of information technology systems. IT goals include, but are not limited to:

- Conduct initial implementation and utilization of a document management system
- Create an information security program and environment aimed at reducing breach of security risks
- Determine longer-term software and systems needs and hardware acquisitions
- Develop and implement information security standards and procedures

- Ensure all information systems are functional and secure, and that all applications running on those systems meet business requirements for performance, availability, and security
- Plan and implement organization-wide information systems, services, and network facilities, including local area networks, wide-area networks, and peripheral systems
- Provide outreach and education to NPCC members in IT best practices
- Continually improve Disaster Recovery policies and practices to ensure continuity of service

Resource Requirements

Personnel

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

Human Resources

Program Scope and Functional Description

NPCC has assembled an exceptional team of highly qualified employees to carry out the activities of NPCC. The human resources function, in adherence with applicable federal and state laws, designs, plans, and implements human resources policies and procedures, including staffing, compensation, benefits, employee relations, and training and development.

An enhanced employee time tracking system was implemented in 2013 based on FERC audit recommendations. Employee time tracking and reporting is also handled by the human resources program area.

Resource Requirements

Personnel

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

Accounting and Finance

Program Scope and Functional Description

The accounting and finance function directs the overall financial plans and accounting practices of the organization; oversees treasury, accounting, budget, tax, and audit activities; and oversees financial and accounting system controls and standards. NPCC uses a CPA firm to prepare its unaudited statements of activities and financial statements for quarterly reviews. Independent audits have identified this system as a best practice.

2016 Goals and Key Deliverables

The objectives are to provide or obtain the financial and accounting services for NPCC and coordinate with NERC requirements:

- Utilize the NERC System of Accounts for consistency
- Utilize an accrual method of accounting for consistency with NERC in methodology
- Alignment of changes in budget and changes in aggregate assessment
- Cash Management
- Budget Development using the NERC budget template formats
- Forecasts and Projections
- Alignment of NPCC Committees, Task Forces and Working Groups with the programs
- Payroll and expense administration
- Preparation of unaudited Quarterly Financial Variance Reports
- IRS Reporting
- Annual Independent Audit initiated by the Regional Entity

Resource Requirements

Personnel

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

Regional Entity Assessment Analysis

In the area of assessments there are distinct funding mechanisms as outlined in the following table. For the Regional Entity division, the North American Electric Reliability Corporation (NERC) will assess load serving entities (LSEs) or their designees (within NPCC the designees are the Balancing Authority Areas (BAAs) for New York, New England, New Brunswick, Nova Scotia, Ontario and Québec) based upon 2014 proportional Net Energy for Load (NEL) and other specific program area funding arrangements and make quarterly remittances to the Regional Entity on or about the 15th day of January, April, July and October. For funding associated with the criteria services division, the Independent System Operators/Balancing Authority Areas (ISO/BAAs) will be assessed by NPCC for their proportional share of the divisional budget based upon 2014 NEL within the Region. Non ISO/BAA Full Members will be assessed no membership fee.

NPCC Cost Allocation Methodology

The accompanying table provides information regarding cost allocation for both the Regional Entity division and the criteria services division of NPCC, including the details associated with the funding of the Compliance Program within the RE division. For purposes of determining assessments to support NPCC's resource requirements, costs are allocated among the BAAs within NPCC as the designees for the load-serving-entities in New York, New England, Ontario, Québec, New Brunswick and Nova Scotia.

In order to reflect and respect the international membership and nature of NPCC, the compliance responsibilities and authorities within the U.S., and the specific compliance responsibilities within each of the Canadian provinces within NPCC, the attendant costs of portions of the compliance program differ among the areas within the Regional Entity. Within the U.S. portion of NPCC all costs attributable to delegated (statutory) functions performed by NPCC, including all compliance functions, are assessed based on a NEL allocation. Within the Canadian portion of NPCC those costs attributable to compliance functions performed by NPCC on behalf of provincial governmental and/or regulatory authorities are allocated consistent with the unique Memoranda of Understanding or Agreements that have been entered into for those provinces. To address these different compliance regimes, NPCC developed a composite cost allocation methodology that allocates compliance costs on a fair and equitable basis within the Regional Entity.

As an initial step of that methodology, the NEL for each of the BAAs and their relative percentage to the NPCC total NEL is calculated for the most recent year for which data is available, the second previous year. In order to establish the RE division funding requirements for each balancing authority area on a NEL basis for all programs except for Compliance the proposed expenses and fixed assets of all other programs are calculated and the adjustment for the RE division cash reserve requirement is identified. Any penalty monies received from NPCC registered entities within the U.S. prior to June 30th of the year preceding the business plan and budget year are then allocated among the NPCC program areas based on their FTE ratio and between the U.S. BAAs based on their relative NELs. Consistent with each of the Canadian provincial MOUs and agreements, all penalty monies resulting from compliance actions within Canada, if any, would remain within the applicable province. The total budgeted fees for NPCC workshop participation are indicated as a credit, with the resultant addition being the RE division assessment, without the compliance program costs, calculated on a NEL basis.

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

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

Audits and Investigations (AI) related costs, representing 51.18% of the costs of the compliance program, are allocated between U.S. and Canadian BAAs in NPCC, and among the Canadian provinces, using an audit-based methodology. The audit-based methodology incorporates relative costs based on categories of compliance audits which are reflective of their size and complexity, as well as the differing compliance program implementation models that are utilized in NPCC due to the international nature of the Regional Entity. The portion allocated to the U.S. BAAs in NPCC is calculated using the audit-based methodology, and this amount is then re-allocated between the New York and New England BAAs based on their relative NEL.

The remaining 25.21% of the costs of the compliance program represent Mitigation and Enforcement (ME) related costs and are allocated between U.S. and Canadian BAAs in NPCC, and among the Canadian provinces, using an enforcement activity based methodology,. Based on historical data, NPCC reviewed each BAAs percentage of violations, mitigation plans and settlement agreements to determine each BAAs total average percentage of enforcement activities. The portion allocated to the U.S. BAAs in NPCC is calculated using the enforcement activity based methodology, and this amount is then re-allocated between the New York and New England BAAs based on their relative NEL.

Any penalty monies received from NPCC registered entities within the U.S. by June 30th of the year preceding the business plan and budget year are then allocated among the NPCC program areas based on their FTE ratio and between the U.S. BAAs based on their relative NELs, and then added to the total compliance program expenses and fixed assets to yield a total compliance program assessment.

Finally, the total RE division funding requirements and assessments by BAA are tabulated and the total funding requirements and assessments for NPCC, both the RE and CS divisions, are combined.

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

A-1	B-1	B-1a.	C-1	C-1a.	D-1	E-1	F-1	G-1	H-1	I-1	J-1	K-1	L-1
NPCC Balancing Authorities (LSE Designees)	2014 Net Energy for Load (MWh)	2014 NPCC US NEL (MWh)	2014 NEL % of NPCC Total	2014 NEL % of NPCC U.S. Total	2016 NPCC RE Division Expenses & Fixed Assets Minus CORC Program	Adjustment to RE Division Cash Reserve Requirement	2016 RE Division Funding Requirement Minus CORC Program	Penalty Monies Applied to RE Division Minus CORC Program	Budgeted Workshop Fees	2016 NPCC CS Division Expenses & Fixed Assets	2016 NPCC CS Division Adjustment to Cash Reserve Requirement	2016 NPCC CS Division Funding Requirement & Member Fees	
New England	127,175,000	19,832,488	15.60%	44.27%	1,273,801	-117,567	1,156,234	-12,628	-12,693	1,130,913	229,475	-19,143	210,332
New York	160,059,000	24,960,2%	15.60%	55.72%	1,603,171	-147,967	1,455,204	-15,894	-15,975	1,423,336	288,811	-24,093	264,718
Ontario	139,804,000	21,801,93%	15.60%	19.24%	1,400,295	-129,242	1,271,053	0	-13,953	1,257,099	252,263	-21,044	231,219
Quebec	189,311,000	29,523,77%	15.60%	1.72%	1,896,163	-175,009	1,721,154	0	-18,894	1,702,260	341,593	-28,496	313,097
New Brunswick	13,953,000	2,179,92%	15.60%	12.85%	139,755	-12,899	126,856	0	-1,393	125,464	25,177	-2,100	23,077
Nova Scotia	10,944,000	1,706,68%	15.60%	10.11%	109,616	-10,117	99,499	0	-1,092	98,407	19,747	-1,647	18,100
Total	641,246,000	100,000,000%	100,000,000%	100,000,000%	\$6,422,801	-\$92,801	\$5,830,000	-\$28,522	-\$64,000	\$5,737,478	\$1,157,066	-\$96,525	\$1,060,542

A-2	B-2	CORC Audit and Investigation Cost Allocation ³			CORC Mitigation and Enforcement Cost Allocation ⁴			G-2	H-2	I-2	J-2	K-2	L-2	M
		C-2	D-2	E-2	F-2	G-2	H-2							
NPCC Balancing Authorities (LSE Designees)	2014 NEL Based Allocation of 23.6% of 2016 CORC Program Fundamentals ²	2016 Audit and Investigation Allocation Methodology a U.S. b NPCC c Canada	2016 51.18% of CORC Program a U.S. b Canada c NEL Based	2016 Mitigation and Enforcement Allocation Methodology a U.S. b Canada c NEL Based	2016 23.21% of CORC Program a U.S. b Canada c Activity Based	2016 Total CORC Program Expenses & Fixed Assets	2016 Total CORC Program Penalty Monies Applied to CORC Program (F-1 plus G-1)	2016 Total CORC Program Assessment (G-2 plus H-2)	2016 RE Division Total Funding Requirement (F-1 plus G-2)	2016 RE Division Total Funding Requirement (F-1 plus G-2)	2016 RE Division Total Funding Requirement (F-1 plus G-2)	2016 RE Division Total Funding Requirement (F-1 plus G-2)	2016 NPCC Total Funding Requirement (L-1 plus K-2)	2016 NPCC Total Assessment & Member Fees (L-1 plus K-2)
New England	405,101	46,0655%	1,615,452	55.84865%	832,331	2,852,884	-17,056	2,835,847	4,009,118	3,966,760	4,219,449	4,219,449	4,177,092	
New York	509,849	36,35613%	2,033,164	30.33215%	1,047,549	3,590,562	-21,442	3,569,120	5,045,766	4,992,456	5,310,484	5,310,484	5,257,174	
Ontario	445,329	5,00147%	221,404	4.07653%	88,902	755,634	0	755,634	2,026,687	2,012,733	2,257,905	2,257,905	2,243,952	
Quebec	605,027	7,77035%	343,975	8.52078%	185,822	1,132,825	0	1,132,825	2,853,979	2,835,085	3,167,076	3,167,076	3,148,182	
New Brunswick	44,446	2,58136%	114,271	0.58065%	12,663	171,380	0	171,380	298,236	296,843	321,312	321,312	319,920	
Nova Scotia	34,861	2,22516%	98,303	0.62123%	13,548	146,911	0	146,911	246,411	245,318	264,511	264,511	263,418	
Total	\$2,042,612	100,000,000%	\$3,648,617	100,000,000%	\$1,879,880	\$8,650,196	-\$38,478	\$8,611,718	\$14,480,196	\$14,480,196	\$15,540,738	\$15,540,738	\$15,409,758	

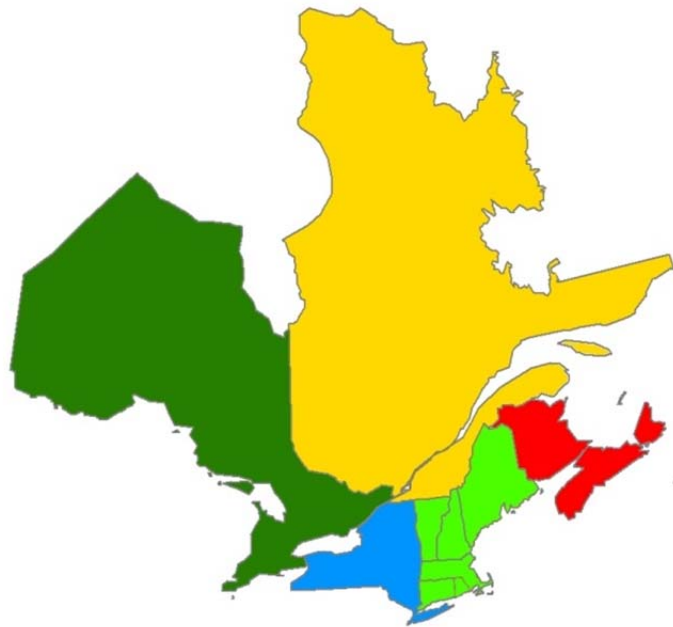
1. Consistent with NERC's Policy on Allocation of Certain Compliance and Enforcement Costs, the NPCC Board approved Allocation Methodologies for Certain NPCC Compliance Program Area Costs Assessed to Non-U.S. Entities.

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

3. Audit and Investigation expenses of \$4,426,769 represent 51.18% of the Total CORC Program Costs. The Canadian costs are allocated utilizing an audit based methodology. The portion of \$2,421,666% attributable to U.S. NPCC is allocated between the New York and New England balancing authority areas based on their respective net energy for load (NEL) as shown in Columns B-1a and C-1a. The ratios in C-1a are applied to the 82.42166% of U.S. audit costs to obtain the percentages (Column C-2) which are then applied to the 21.18% of CORC costs. Audit based allocation uses Compliance Registry Data registrations as of May 1, 2015.

4. Mitigation and Enforcement expenses of \$2,180,815 represent 23.21% of the Total CORC Program Costs. The Canadian costs are allocated utilizing an enforcement activity based methodology. The portion of \$6,200,8% attributable to U.S. NPCC is allocated between the New York and New England balancing authority areas based on their respective net energy for load (NEL) as shown in Columns B-1a and C-1a. The ratios in C-1a are applied to the 82.42166% of U.S. enforcement costs to obtain the percentages (Column C-2) which are then applied to the 25.21% of CORC costs.

Section B – Supplemental Financial Information 2016 Business Plan and Budget



Section B — Supplemental Financial Information

Reserve Balance

Table B-1 – Reserve Balance

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

¹ Total Reserve within a range of 16.67% - 33.33% of Budget.

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

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

⁴ Represents collections prior to June 30, 2015.

Explanation of Changes in Reserve Policy from Prior Year

None

Breakdown by Statement of Activity Sections

The following detailed schedules are in support of the Regional Entity division Statement of Activities on page 13 of the 2016 Business Plan and Budget. All significant variances have been disclosed by program area in the preceding pages.

Penalty Sanctions

U.S. penalty monies received prior to June 30, 2015 are to be used to offset assessments in the 2016 Budget, as documented in the NERC Policy – Accounting, Financial Statement, and Budgetary Treatment of Penalties Imposed and Received for Violations of Reliability Standard. Penalty monies received from July 1, 2015 through June 30, 2016 will be used to offset U.S. load serving entity designee assessments in the 2017 Budget.

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

Allocation Method: U.S. penalty sanctions received have been allocated to the following Regional Entity division programs to reduce assessments: Reliability Standards; Compliance Monitoring & Enforcement and Organization Registration & Certification; Reliability Assessments and Performance Analysis; Training, Education and Operator Certification; and Situation Awareness and Infrastructure Security. U.S. penalty sanctions are allocated based upon the number of FTEs in the Program divided by the aggregate total FTEs in the Programs receiving the allocation.

Table B-2 – Penalty Sanctions

Penalty Sanctions Received Prior to June 30, 2015	Date Received	Amount Received
Penalty Payment 1	11/14/2014	\$ 5,000.00
Penalty Payment 2	11/24/2014	\$ 20,000.00
Penalty Payment 3	11/20/2014	\$ 12,000.00
Penalty Payment 4	12/1/2014	\$ 20,000.00
Penalty Payment 5	3/5/2015	\$ 10,000.00
Total Penalties Received		\$ 67,000.00

Table B-3 – Supplemental Funding

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

Explanation of Significant Variances –2016 Budget versus 2015 Budget

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

Table B-4 – Personnel Expenses

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

Explanation of Significant Variances –2016 Budget versus 2015 Budget

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

Table B-5 – Meeting Expense

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

Explanation of Significant Variances –2016 Budget versus 2015 Budget

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

Table B-6 Consultants and Contracts

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

Explanation of Significant Variances –2016 Budget versus 2015 Budget

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

Table B-7 Office Rent

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

Explanation of Significant Variances –2016 Budget versus 2015 Budget

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

Table B-8 Office Costs

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

Explanation of Significant Variances –2016 Budget versus 2015 Budget

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

Table B-9 Professional Services

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

Explanation of Significant Variances –2016 Budget versus 2015 Budget

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

Table B-10 – Miscellaneous

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

Table B-11 Other Non-Operating Expenses

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

Table B-12 Fixed Assets

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

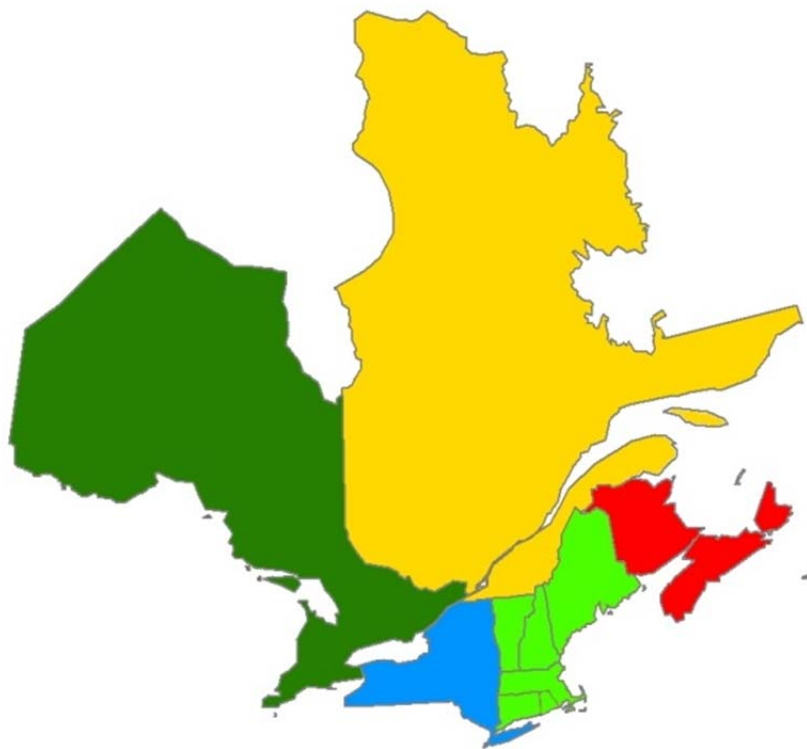
Explanation of Significant Variances –2016 Budget versus 2015 Budget

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

Table B-13 2017 and 2018 Projections

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

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



Section C —2015 Criteria Services Division Business Plan and Budget

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

NPCC Regionally-Specific Criteria Services Background

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

Membership and Governance

Full members are subject to compliance with Regionally-specific criteria, in addition to continent-wide Reliability Standards, and receive criteria-related services from the Criteria Services division.

Full Members, aside from those who perform the Balancing Authority function, are not assessed an annual membership fee. Those that perform Balancing Authority functions are assessed and remit a proportional net energy for load share of expenses for criteria services. NPCC would also directly assign criteria service division costs to a Balancing Authority Area or entity, where significant costs are incurred for that Balancing Authority Area. The funding for NPCC’s Criteria Services division is approved by the NPCC Board of Directors.

Criteria Services Division Functional Scope

Through its Criteria Services division, NPCC promotes the reliable and efficient operation of the international, interconnected bulk power systems in Northeastern North America through the establishment of Regionally-specific criteria, and monitoring and enforcement of compliance with such criteria.

NPCC provides Full Members with Regional reliability assurance services, and acts as the vehicle through which States and Provinces can fulfill their political mandates, with respect to resource adequacy, as well as overseeing the Northeastern North American electric infrastructure.

Major 2016 Assumptions and Cost Impacts

The Criteria Services division services are expected to remain stable throughout 2016 when compared to the Regional Entity division.

- The Criteria Compliance Enforcement Program (CCEP) review and evaluation process has matured and been enhanced after its inception in 2012. Criteria Compliance submittals to the CC are done as necessary.
- Past non-compliances, if any, followed the due process stated in the CCEP-1 process document and proper resolution/enforcement action taken.

2016 Primary Goals and Objectives

- Continue with the development and maintenance of a set of NPCC Phase II Directories which are “not inconsistent with” the NERC Reliability Standards and which clearly delineate the more stringent NPCC criteria requirements
 - The combination of North American and Regional Reliability Standards with the more-stringent NPCC Regional criteria provides for consistency and operational clarity while providing a more robust defense in-depth, results based, standards to ensure BES reliability
 - Continually review the criteria found in the NPCC Directories and the ERO standards to ensure no redundancies or inconsistencies exist.
 - Retire Directory Criteria which have been overtaken by improved NERC standards
 - Continually file the more stringent requirements with the New York State Department of Public Service and Canadian Provinces as applicable
- Review, maintain, and revise the NPCC Regional Reliability Directories to facilitate compliance assessments and ensure the Criteria portions of the Directories are “not inconsistent” with, nor duplicative with, the approved and effective NERC Standards.
- The criteria services division and CCEP Working Group (reporting to the Compliance Committee) will work with the various Task Forces to develop Criteria Compliance Reporting Forms for additional NPCC Directories to ensure that the more stringent or Regionally-specific criteria is being met.
- The criteria services division and CCEP working group will work with TFCO, TFCP, TFSS, and TFSP to review criteria and measures within each specific NPCC Directory to identify and develop them into specific reporting forms for approval.
- Continually review impact of Bulk Electric System definition on Directory and Criteria content and compliance reporting.
- Continually review potential impacts of Sector or NPCC organizational changes on the Directories and Criteria by performing a review of enforcement and arbitration processes as needed
- Assist Legal with preparation of revised Directories for Regulatory filings with the individual Provinces in accordance with their respective Memorandum of Understandings (MOUs) as well as the State of New York Public Service Commission

- Facilitate any requested interpretations for NPCC Criteria with the necessary subject matter experts and identify potential opportunities for clarifications of the Criteria.
- Conduct review of the following Documents including incorporation of Phase II Directory effort:
 - Develop a new Directory for Disturbance Monitoring Equipment to house criteria, guides, and procedures.
 - Review and respond to Requests for Interpretations and Clarifications to existing NPCC Standards, Directories, and Criteria
 - Directory 7 – NPCC Special Protection Systems – Serve as lead Task Force working in conjunction with TFCP and TFSS on revisions required to ensure consistency with the development of the new NERC standard on Remedial Action Schemes.

NPCC Reliability Directory Maintenance and Development

The NPCC Regional Reliability Directories were developed to demonstrate that the NPCC more stringent criteria are “not inconsistent with” the NERC Reliability Standards as mandated by the NERC Rules of Procedure. The conversion of NPCC’s criteria into Directories was undertaken to remove any redundancies with the NERC or NPCC Regional Reliability Standards and to clearly delineate the more stringent NPCC criteria requirements, assign Functional Model designations to those responsible for compliance and create measurable compliance criteria. In 2013 the directories were further reviewed and revision of the directories is underway to transition the criteria language into a “requirement type” format. This further revision facilitates the NPCC Region’s CCEP and ensures the continued delineation of the more stringent and more specific Regional criteria from the latest approved and effective set of NERC ERO standards.

In 2016, work will proceed with maintenance, revision, or potential retirement of the individual Directories to address any future redundancies with new or modified NERC or NPCC Reliability Standards, as well as the continued need for additional more stringent or specific NPCC Regional criteria requirements as NERC Reliability Standards are developed and existing standards are revised. NPCC will continue to rely on contractors for subject matter expertise on an as-needed basis throughout 2016. The amount of Regional documents being converted into Directories and the maintenance of the Directories require subject matter expert input. In addition, changes will be necessary to bring the Phase II Directory project to completion. This project will require significant resources and involves the translation of the existing criteria language into “requirements” which are clear, concise and measurable. Also, a standards style template will be applied to the existing Directories to make them more consistent with the look of the standards. As NERC standards improve the need for NPCC Directories and amount of criteria contained therein will gradually decrease over time, however in the interim, significant review is necessary to ensure the criteria remain “not inconsistent with” the NERC standards as outlined in the NERC Rules of Procedure. NPCC will conduct internal reviews of all draft standards against Regional criteria and utilize subject matter experts to identify reliability and compliance related concerns. NPCC will file the revised NPCC Directories and notifications of retirements of Directories with the Canadian governmental and/or provincial Regulatory authorities within the NPCC “footprint”, on an as needed basis, in accordance with established provincial procedures and agreements executed with NPCC.

The following Directories will either be under revision or reviewed for further development based on a schedule set forth in the NPCC Reliability Assessment Program:

NPCC Operations and Planning Directories

The following Directories are envisioned to remain active for 2016.

Directory #1, Basic Criteria for Design and Operation of Interconnected Power Systems

This directory documents NPCC's Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with all the existing NERC TPL, BAL, IRO, INT, MOD, TOP, PRC and VAR standards. The NPCC Task Force on Coordination of Planning will lead a multi-disciplinary working group, consisting of operations and planning subject matter experts to review and revise this directory to reflect the FERC ruling on TPL and other TOP changes.

Directory #2, Emergency Operations

This directory documents NPCC's Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with all the existing NERC EOP and TOP standards. The NPCC Task Force on Coordination of Operation will lead this review and revision.

Directory # 4, BPS Protection

This Directory documents NPCC's Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with certain applicable NERC PRC standards. The NPCC Task Force on System Protection will lead this review and revision.

Directory # 5, Operating Reserve Requirements

This directory documents NPCC's Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with all the existing applicable NERC BAL, INT, and IRO standards. The NPCC Task Force on Coordination of Operation will lead this review and revision.

Directory # 7, Special Protection Systems

This Directory documents NPCC's Regionally-specific, more stringent criteria for application and approval of SPS. The NPCC Task Force on System Protection will lead this review and revision.

Directory # 8 System Restoration

This Directory documents NPCC's Regionally-specific, more stringent criteria with which each applicable entity must plan for and perform power system restoration following a major or a total blackout, and demonstrates coordination and consistency with applicable NERC EOP standards. The NPCC Task Force on Coordination of Operation will lead this review and revision.

Directory # 9, Verification of Generator Gross and Net Reactive Power Capability

This Directory documents NPCC's Regionally-specific, more stringent criteria for verifying the Gross Reactive Power Capability and Net Reactive Power Capability of generators or generating facilities. The NPCC Task Force on Coordination of Operation will lead this review and revision.

Directory # 11, *Disturbance Monitoring*, This directory documents NPCC's Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with certain existing NERC PRC standards. The NPCC Task Force on System Protection will lead this review and

revision until such time as the NPCC PRC-002-01 Disturbance Monitoring Regional Standard is adopted by FERC and the applicable governmental authorities.

Directory # 12, *UFLS Program*, This directory documents NPCC’s Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with certain existing NERC and NPCC developing PRC standard(s). The NPCC Task Force on System Studies will lead this review and revision until such time as the NPCC PRC-006-01 UFLS Regional Standard is approved by the NPCC membership, NERC BOT, the FERC and all the applicable governmental authorities in the Provinces of Canada within NPCC’s footprint.

NPCC Criteria Compliance Background

The NPCC criteria services division assures the reliable operation of the bulk power system through implementation of a comprehensive compliance program. The compliance program that includes monitoring, assessing and enforcing compliance with more stringent, Regionally specific NPCC Criteria requirements, is known as the NPCC Criteria Compliance and Enforcement Program (CCEP) described in process document CCEP-1. This program was developed by the criteria services division and the CCEP Working Group under the purview of the NPCC Compliance Committee. The products of this program support the various Task Forces in their assessments of the NPCC Directories in meeting their goals for the Reliability Coordinating Committee as stated in Section A of this Business Plan.

The more stringent, Regionally-specific NPCC Criteria requirements reflect the unique operational and planning aspects of the bulk power system within the NPCC Region and are included in the NPCC “A” documents and their successors, the NPCC Directories.

NPCC issues non-monetary sanctions to enforce compliance with NPCC Criteria.

- The CCEP program is described in document CCEP-1, *NPCC Criteria Compliance and Enforcement Program (CCEP) Process Document*
- The implementation plan is described in document CCEP-2, *Implementation Plan for 2011 NPCC Criteria Compliance and Enforcement Program*
- On April 5, 2011, the above became effective upon Full Member approval of CCEP-1, and CCEP-2 and retired the following
 - NPCC Criteria A-8, Reliability Compliance and Enforcement Program (RCEP)
 - NPCC Guide B-22, Guidelines for Implementation of the NPCC Inc. Compliance Program
 - NPCC Procedure C-32, Review Process for NPCC Reliability Compliance Enforcement Program
 - Each of the above have been annotated as “retired effective 4/5/11 upon Full Member approval of CCEP-1... and CCEP-2...” on the NPCC public website

The CCEP-1 document

- recognizes the applicability of NPCC’s Regionally-specific, more stringent reliability criteria to the Full Members of NPCC, consistent with the *Amended and Restated ByLaws*, and respects the provisions of the several Canadian Memoranda of Understanding in the execution of the processes described

- provides a comprehensive CCEP Process Diagram showing the process of evaluating and approving Criteria Certification submittals, and additional processes and responsibilities in the event that non-compliances, disputes and sanctions arise
- describes the roles and responsibilities of Reporting Members, CC, RCC and Enforcement Panel in the compliance review and enforcement process
- describes Levels of Non-Compliance, associated non-monetary Sanctions, Lateness Policy and the Arbitration/Dispute Resolution process
- addresses Mitigation Plans for any violations under the enforcement process; and
- lists the mandatory Certification Forms to be submitted for review by the Task Forces to ensure compliance with NPCC Directories are being met

The CCEP currently requires annual submittal of Certification Forms by the Reliability Coordinators and Balancing Authorities to confirm compliance with various NPCC Directories. Currently the required Certification forms are for Directory #1- *Area Transmission Review*, Directory #8 - *Key Facility List*, Directory #9 – *Generator Real Power Verification*, Directory #10 - *Verification of Generator Gross and Net Reactive Power Capability*, and Directory #12 - *UFLS Program Requirements*. In 2015 NPCC anticipates expansion of the CCEP to include compliance assessment activities to all active Directories.

The CCEP identifies those specific NPCC Directories that are subject to monitoring, assessment and enforcement. These Directories also are subject to NPCC Criteria Compliance Audits.

The NPCC Compliance Committee (CC) has final approval of compliance assessments related to CCEP. The CCEP describes the roles and responsibilities of committees and panels used to resolve contested compliance and/or sanction or penalty determinations related to NPCC Directories.

Explanation of Significant Variances – 2016 Budget versus 2015 Budget

Resource Requirements

Personnel

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

2015 Budget and Projection and 2016 Budget Comparisons

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

Personnel Analysis

Total FTE's by Program Area	Budget 2015	Projection 2015	Direct FTEs 2016 Budget	Shared FTEs ¹ 2016 Budget	Total FTEs 2016 Budget	Change from 2015 Budget
CRITERIA SERVICES DIVISION						
Operational Programs						
Reliability Standards	1.07	1.07	1.00	0.07	1.07	0.00
Compliance Enforcement and Organization Registration and Certification	0.00	0.00	0.00	0.00	0.00	0.00
Training and Education	0.00	0.00	0.00	0.00	0.00	0.00
Reliability Assessment and Performance Analysis	1.07	1.07	1.00	0.07	1.07	0.00
Situation Awareness and Infrastructure Security	0.00	0.00	0.00	0.00	0.00	0.00
Total FTEs Operational Programs	2.14	2.14	2.00	0.14	2.14	0.00
Administrative Programs						
Member Forums	0.00	0.00	0.00	0.00	0.00	0.00
General and Administrative	0.00	0.00	0.00	0.00	0.00	0.00
Information Technology	0.00	0.00	0.00	0.00	0.00	0.00
Legal and Regulatory	0.00	0.00	0.00	0.00	0.00	0.00
Human Resources	0.00	0.00	0.00	0.00	0.00	0.00
Accounting and Finance	0.00	0.00	0.00	0.00	0.00	0.00
Total FTEs Administrative Programs	0.00	0.00	0.00	0.00	0.00	0.00
Total FTEs	2.14	2.14	2.00	0.14	2.14	0.00

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

Reserve Analysis 2015-2016

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

¹ Total Reserve may be within a range of 16.67% - 33.33% of Budget.

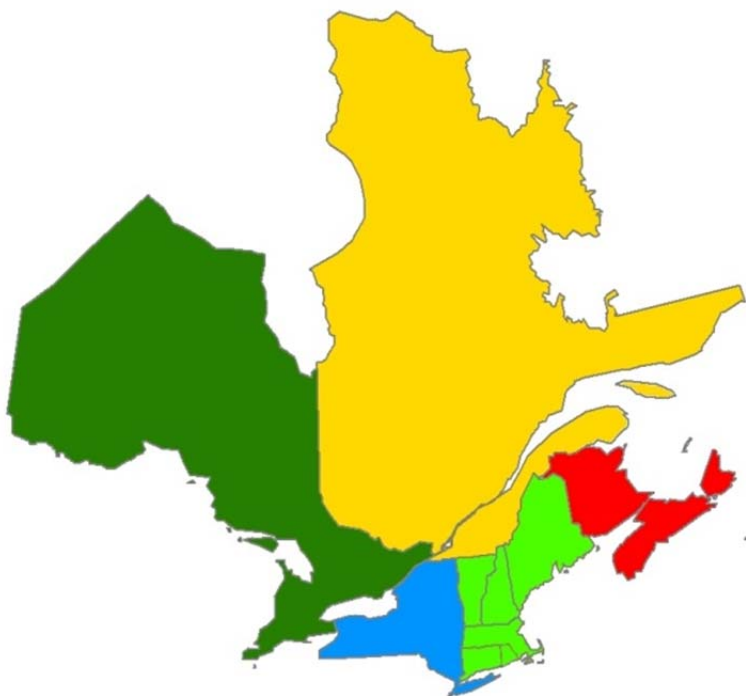
² Total NPCC Operating Reserve must be within a range from 8.33% to 25.00% of Budget. \$245,328 represents 21.20% of the 2016 budget of \$1,157,066, however the combined total of the RE and CS budgets does not exceed 25.00%

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

Explanation of Changes in Reserve Policy from Prior Year

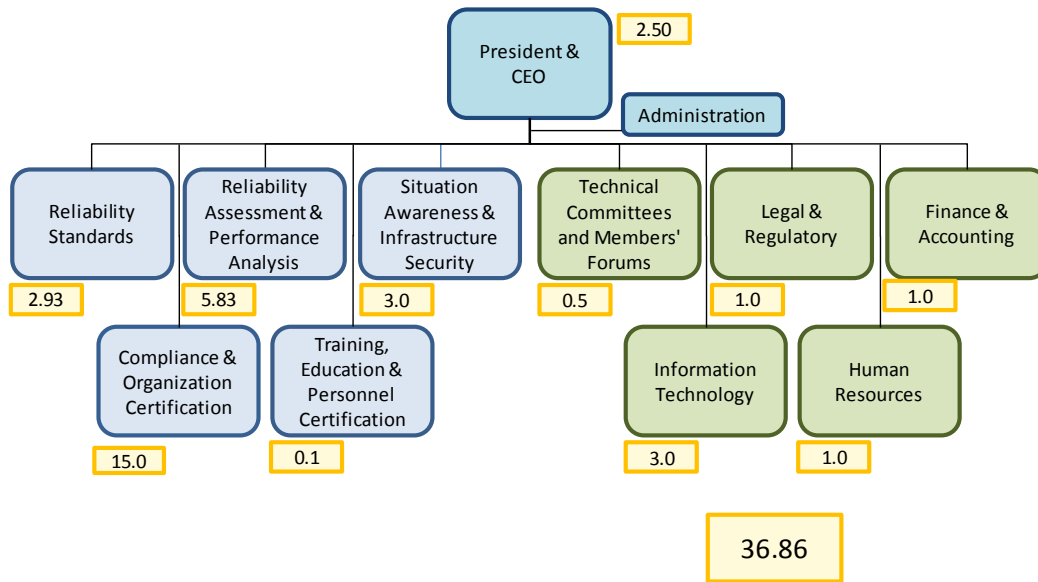
None

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

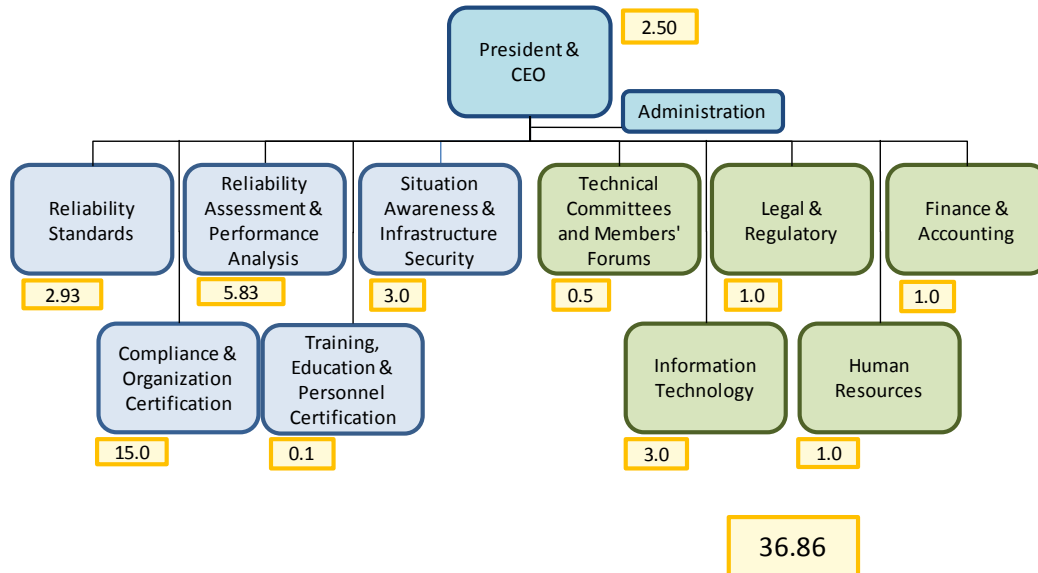


Appendix A

2015 Budget Staff Allocations - RE Division

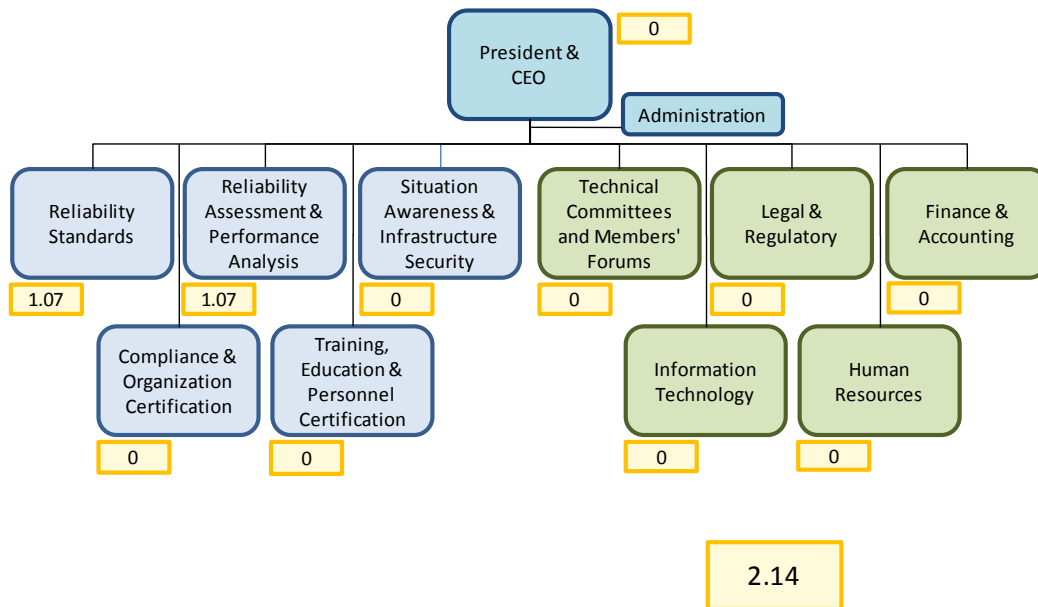


2016 Budget Staff Allocations - RE Division

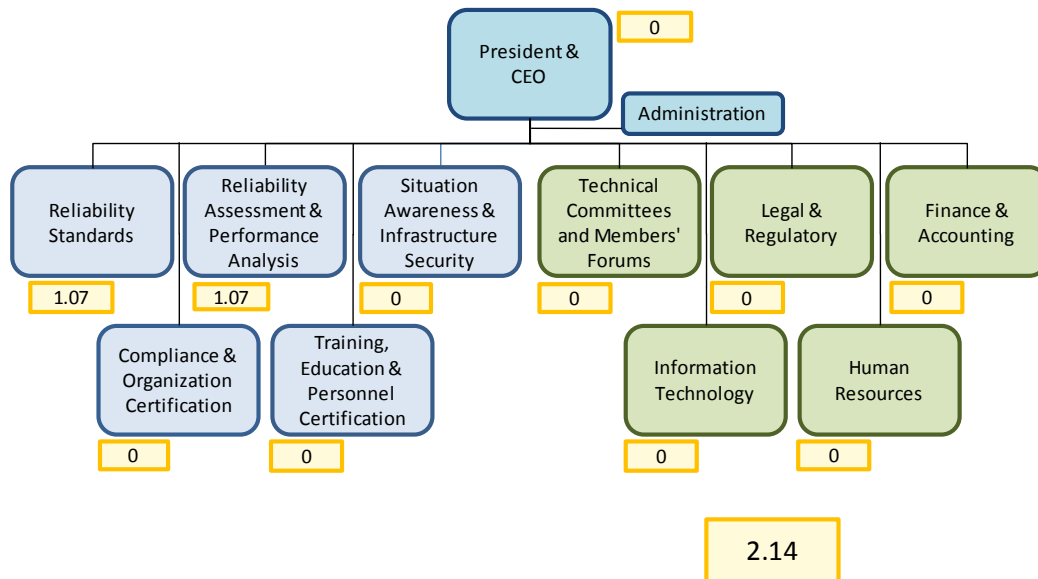


Section D — Additional Financial Statements

2015 Budget Staff Allocations - CS Division



2016 Budget Staff Allocations - CS Division



Appendix B Acronyms

This section lists acronyms used in this document.

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

Section D — Additional Financial Statements

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

Appendix C Index of Figures and Tables

Figure 1.	Budget by Program Area Chart	11
Table 1.	NPCC Budget for 2016	3
Table 2.	Budget by Program Area	11
Table 3.	Total FTE's by Program Area	12
Table 4.	Budget and Projection Comparison, 2015 to 2016	13
Table A-1.	Reliability Standards Budget	15
Table A-2.	Reliability Standards Budget Detail	22
Table A-3.	Compliance Monitoring and Enforcement and Organization Registration and Certification Budget	23
Table A-4.	Compliance Monitoring and Enforcement and Organization Registration and Certification Budget Detail	30
Table A-5.	Reliability Assessments and Performance Analysis (RAPA) Budget	31
Table A-6.	Reliability Assessments and Performance Analysis (RAPA) Budget Detail	43
Table A-7.	Training, Education, and Operator Certification Budget	44
Table A-8.	Training, Education, and Operator Certification Budget Detail	47
Table A-9.	Situation Awareness and Infrastructure Security Budget	48
Table A-10.	Situation Awareness and Infrastructure Security Budget Detail	53
Table A-11.	Administrative Services Budget	54
Table A-12.	Administrative Services Budget Detail	55
Table B-1.	Working Capital Reserve Analysis 2015-2016	67
Table B-2.	Penalty Sanctions Received	68
Table B-3.	Supplemental Funding	69
Table B-4.	Personnel Expenses	70
Table B-5.	Meeting Expense	71
Table B-6.	Consultants and Contracts	72
Table B-7.	Office Rent	73
Table B-8.	Office Costs	73
Table B-9.	Professional Services	74
Table B-10.	Miscellaneous	74
Table B-11.	Other Non-Operating Expenses	74
Table B-12.	Fixed Assets	75
Table B-13.	Budget 2016 Compared with 2016-2017 Projections	76
Table C-1.	2015 Criteria Services Division Business Plan and Budget	78
Table C-2.	2015 Budget and Projection and 2016 Budget Comparisons	84
Table C-3.	Personnel Analysis	85
Table C-4.	Reserve Analysis 2015-2016	86
Table D-1.	Statement of Financial Position, Three-Year Comparison	88