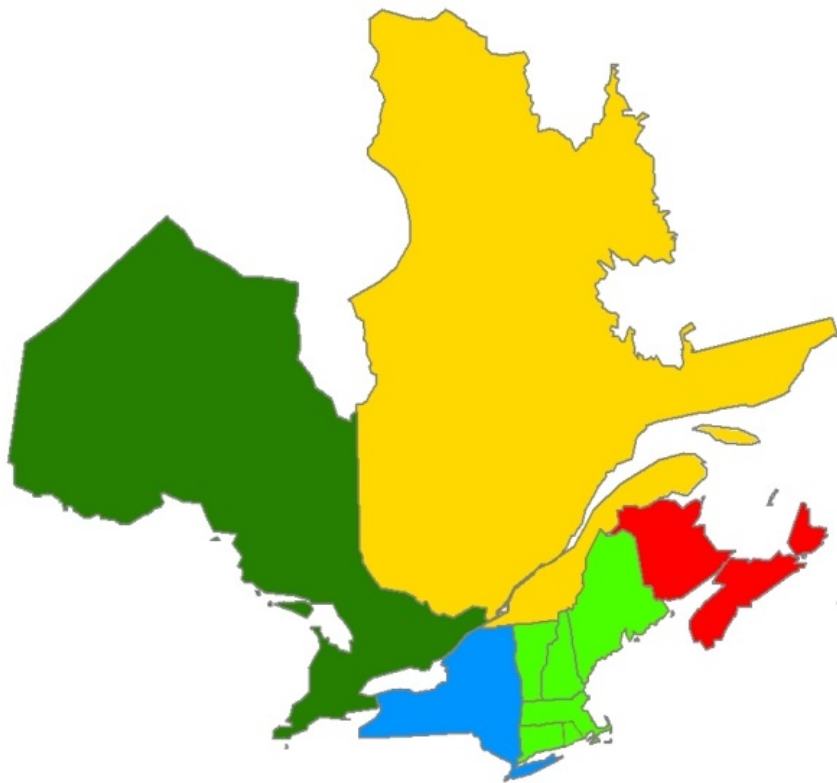




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Northeast Power Coordinating Council, Inc. (NPCC)

2021 Business Plan and Budget



**Updated Draft #1
For Review and Discussion at the
June 3, 2020 Board of Directors Meeting**

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Introduction

Total NPCC Resources				
(in whole dollars)				
	2021 Budget	U.S.	Canada	Mexico
Regional Entity Division FTEs	42.11			
Criteria Services Division FTEs	2.14			
Total FTEs	44.25			
Regional Entity Division Expenses	\$16,346,648			
Criteria Services Division Expenses	\$993,713			
Total Expenses	\$17,340,361			
Regional Entity Division Inc(Dec) in Fixed Assets	\$94,000			
Criteria Services Division Inc(Dec) in Fixed Assets	\$6,000			
Total Inc(Dec) in Fixed Assets	\$100,000			
Regional Entity Division Working Capital Requirement**	(\$558,301)			
Criteria Services Division Working Capital Requirement***	(\$324,222)			
Total Working Capital Requirement	(\$882,523)			
Total Regional Entity Division Funding Requirement	\$15,882,348			
Total Criteria Services Division Funding Requirement	\$675,491			
Total Funding Requirement	\$16,557,838			
Regional Entity Division Assessments	\$15,154,584	\$XXX,XXX	\$XXX,XXX	
Regional Entity Division Assessments Percentage	100%	XX.X%	XX.X%	
Criteria Services Division Membership Fees	\$671,755	\$XXX,XXX	\$XXX,XXX	
Total NPCC Assessments & Membership Fees	\$15,826,338	\$XXX,XXX	\$XXX,XXX	
NEL	XX	XX	XX	
NEL %	100%	XX.XX%	XX.XX%	

** Refer to Table B-1 on page 62 in Section B.

*** Refer to the Reserve Analysis on page 79 in Section C.

2021 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 an operating budget decrease of -2.0% and assessments decrease of -3.5%. All 2021 succession implementation costs will be funded through existing Business Continuity Reserves, having no impact on assessments, and are excluded from the operating budget change calculation. On a divisional level, NPCC proposes a Regional Entity budget and assessment decrease of -1.2% and a Criteria Services division budget decrease of -13.1% and assessment decrease of -36.9%. Criteria Services assessments are decreasing by a percentage greater than decrease in budget in order to reduce operating reserves in accordance with the established policy range. Additional detail regarding reserve balances for the Regional Entity and Criteria Services divisions can be found on pages 62 and 79, respectively. The proposed 2021 funding requirements will be satisfied by a Regional Entity division assessment of \$15,154,584 and Criteria Services division membership fees of \$675,491, for a total of \$15,826,338. The total NPCC assessments and fees represent a decrease of -3.5% compared to the 2020 total assessments and fees of \$16,403,939. 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 Northeastern North America 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 46% U.S. and 54% Canadian. With regard to Canada, approximately 70% of Canadian net energy for load is within the NPCC Region.

Effective January 1, 2016, NPCC executed an Amended and Restated Regional Delegation Agreement with the North American Electric Reliability Corporation (NERC or Electric Reliability Organization "ERO" 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 (MOU) or Agreements with Canadian provincial regulatory and/or governmental authorities in Ontario, Québec, New Brunswick and Nova Scotia.

An Amended and Restated Delegation Agreement effective as of January 1, 2021, between the North American Electric Reliability Corporation ("NERC") and NPCC is expected to be executed later in 2020 indicating that NPCC meets all requirements of Section 215 of the Federal Power Act, the ERO Regulations, and the NERC Rules of Procedure as approved by the Federal Energy Regulatory Commission necessary to qualify for delegation for the coming five year period. This amended and restated Agreement will incorporate the benefits of the NPCC and NERC mutual experience and lessons learned while operating under the predecessor agreement with regard to NPCC U.S. and thereby provide for the more efficient and effective execution of respective responsibilities in a transparent manner that is pursuant to Section 215 and ERO Regulations. It is imperative that NPCC maintain its ability to carry out delegated authorities and responsibilities. NPCC has a 2021 targeted staffing level of 44.25 power industry professionals and support personnel. Details of the 2021 business plans and budget for each program area are included in Section A for the Regional Entity division. The 2021 Regional Entity division supplemental financial schedules are shown in Section B. Section C details the 2021 Criteria Services division business plan and budget.

Membership and Governance

NPCC monitors approximately 243 registered entities and some 496 functions in the Region for compliance with mandatory Reliability Standards. NPCC currently has approximately 95 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.

Under the Criteria Services division, NPCC will seek out and evaluate for membership, entities involved in emerging technologies to assure that those entities that have an impact on Bulk Electric System reliability are included in appropriate NPCC activities.

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, pension, 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. An independent director chairs the FAC and works with the Chief Operating Officer who provides oversight of the finances of the corporation. The FAC Chair along with the CPA Treasurer and

Chief Operating Officer report 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* establish 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 individual provincial MOU or Agreements with each province providing the unique parameters for compliance and enforcement activities for each of the provinces. An MOU between the Independent Electricity System Operator in Ontario (IESO), NERC and NPCC establishes roles and responsibilities with regard to that province. NPCC, NERC and the New Brunswick Energy and Utilities Board are parties to a MOU that sets forth reliability activities for New Brunswick. The Régie de l'énergie, NERC and NPCC executed an Agreement regarding the implementation of the Québec reliability standards compliance monitoring and enforcement program. NPCC, NERC and Nova Scotia executed a MOU that sets forth the mutual understanding of the parties in relation to the approval and implementation of NERC Reliability Standards and NPCC Regional reliability criteria for the province of Nova Scotia.

International Foundation

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

a) U.S. Foundation

The Federal Energy Regulatory Commission (FERC) certified NERC as the 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. 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 Contrôle des mouvements d’énergie (HQCMÉ), a division of Hydro-Québec TransÉnergie, as the Reliability Coordinator for Québec. In accordance with its mandate and as recognized in the 2009 Agreement, it is this entity that is responsible for the filing with the Régie de l’énergie for approval of reliability standards in Québec. HQCMÉ 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.

NPCC also conducts 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

On 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 New Brunswick Energy and Utilities Board (NBEUB) is an independent, quasi-judicial board that is responsible for regulating New Brunswick’s electricity sector under the NB Electricity Act. The NBEUB has the responsibility to adopt and enforce reliability standards in New Brunswick.

As contemplated in the NB Electricity Act, NPCC and the NBEUB entered into a Service Contract dated August 10, 2016, whereby NPCC provides CMEP and other services for the NBEUB. Additionally, the NBEUB, NPCC, and NERC entered into a Memorandum of Understanding on August 10, 2016, which describes the roles and responsibilities of the three entities and facilitates data sharing. These two documents, along with the NB Electricity Act are the governing documents with respect to conducting CMEP and other reliability related activities in New Brunswick.

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, NB Power 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 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 NB Power 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 provides for NPCC to identify entities that must register with the NBEUB in the New Brunswick specific registry. Additionally, NPCC may 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, as provided for in the Service Contract. 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.

ERO Enterprise Model and Transformation

The collective network of leadership, experience, skills, and technologies shared among NERC and the Regional Entities is referred to as the ERO Enterprise. The ERO Enterprise is a collaborative organization with distinct roles between NERC and the Regional Entities. The ERO Enterprise strives for consistency where necessary, but recognizes that each Regional Entity addresses reliability in unique ways based on its own challenges and stakeholder needs; the model enables innovative and distinctive approaches to address these unique reliability risks and challenges locally. As the ERO Enterprise continues to mature, the organization is working on a transformation initiative to further leverage resources, enhance communication and collaboration, and ensure grid reliability. A set of declarations was established in 2019, committing the ERO Enterprise to:

- Work together as one team and honor each of its roles;
- Actively support ERO Enterprise activities while eliminating unnecessary duplication of work;
- Collaborate to develop clear and consistent guidance across the ERO Enterprise;
- Share information, knowledge, and resources across the ERO Enterprise;
- Develop and share harmonized messages across ERO Enterprise communications; and

- Support innovation, initiatives, and the sharing of best-practices across the ERO Enterprise.



NERC has unique responsibilities to oversee program areas, set qualifications and expectations for the performance of delegated activities, and assess, train, and give feedback to corresponding Regional Entity programs. NERC and the Regional Entities also coordinate activities to identify, prioritize, and address risks to reliability. The Regional Entities have a mirrored set of responsibilities within the ERO Enterprise model, providing input into the overall development of each ERO program area, providing training and development to meet ERO qualifications, and ensuring delegated responsibilities are completed. Regional Entities also have an obligation to meet professional standards of independence and objectivity and provide the best available expertise for addressing regional risks.

ERO Enterprise Long-Term Strategy

NERC and the Regional Entities are continually refining their individual and collective operating and governance practices in support of strategic and operational goals and objectives that are designed to ensure the ERO fulfills its statutory obligations. This collaboration is done while acknowledging the unique differences across the Regions, and the different corporate and governance responsibilities of each entity.

In 2019, ERO Enterprise leadership came together to revise the *ERO Enterprise Long-Term Strategy* as part of an effort to streamline its strategic and operational documents and ensure alignment with the NERC Reliability Issues Steering Committee's (RISC's) currently identified bulk power system (BPS) risks. This strategy, which was approved by the NERC Board of Trustees on December 12, 2019, can be found within the NERC Business Plan and Budget, and includes the following strategic focus areas:

1. Expand risk-based focus in all standards, compliance monitoring, and enforcement programs;
2. Assess and catalyze steps to mitigate known and emerging risks to reliability and security, leveraging the RISC's biennial *ERO Reliability Risk Priorities Report*;
3. Build a strong, Electricity Information Sharing and Analysis Center (E-ISAC)-based security capability;
4. Strengthen engagement across the reliability and security ecosystem in North America; and
5. Capture effectiveness, efficiency, and continuous improvement opportunities.

As part of the business planning and budgeting process, NERC and the Regional Entities identify and discuss departmental goals and activities to ensure alignment with the long-term strategy and harmonization across the ERO Enterprise where appropriate. Program area narratives in each organization's business plan and budget may reference how activities support each of the strategic focus areas.

2021 Key Goals and Key Deliverables

NPCC activities that support ERO Enterprise Long-Term Goals are detailed in each of the following program area sections. For example, key goals and deliverables within the Reliability Standards program area include supporting the development of risk-responsive Reliability Standards as well as facilitating a Distributed Energy Resources (DER) Forum. Within the Compliance Monitoring and Enforcement and Organization Registration and Certification program, in addition to conducting objective, risk-informed compliance monitoring, enforcement and entity registration activities, this area will be addressing increased reliability enhancement activities and implementing the ERO Enterprise CMEP data application (Align). The Reliability Assessment and Performance Analysis program will be focusing on reduction of known risks to reliability and the identification and assessment of emerging reliability risks, such as changing resource composition. In the Situation Awareness and Infrastructure Security area there is an increasing focus on the identification and reduction of cyber and physical security risks through expanded outreach. In order to achieve these goals and expanded efforts, while minimizing increases in budget, significant reprioritization within the business plan and reallocation of resources were required.

Regional Entity Division Functional Scope

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

- Active participation in the development and revision of North American Reliability Standards for the bulk electric system, and as needed development of Reliability Standards and Variances 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 bulk electric infrastructure.
- Participating in reliability and security activities that enhance resilience of the bulk power system.

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, in conjunction with NERC and the other Regional Entities, has developed and deployed an ERO Enterprise-wide CMEP data application (Align) for gathering data, analysis, and tracking of compliance information to carry out these responsibilities in a consistent and cost-effective manner.

NPCC has organized the remaining staff into program areas consistent with ERO Act 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.

2021 Overview of Regional Entity Division Cost Impacts

The proposed Regional Entity division assessment of \$15,154,584, to support the Regional Entity division operating budget of \$15,963,128, is a decrease of -1.2% compared to the 2020 assessment of \$15,338,737.

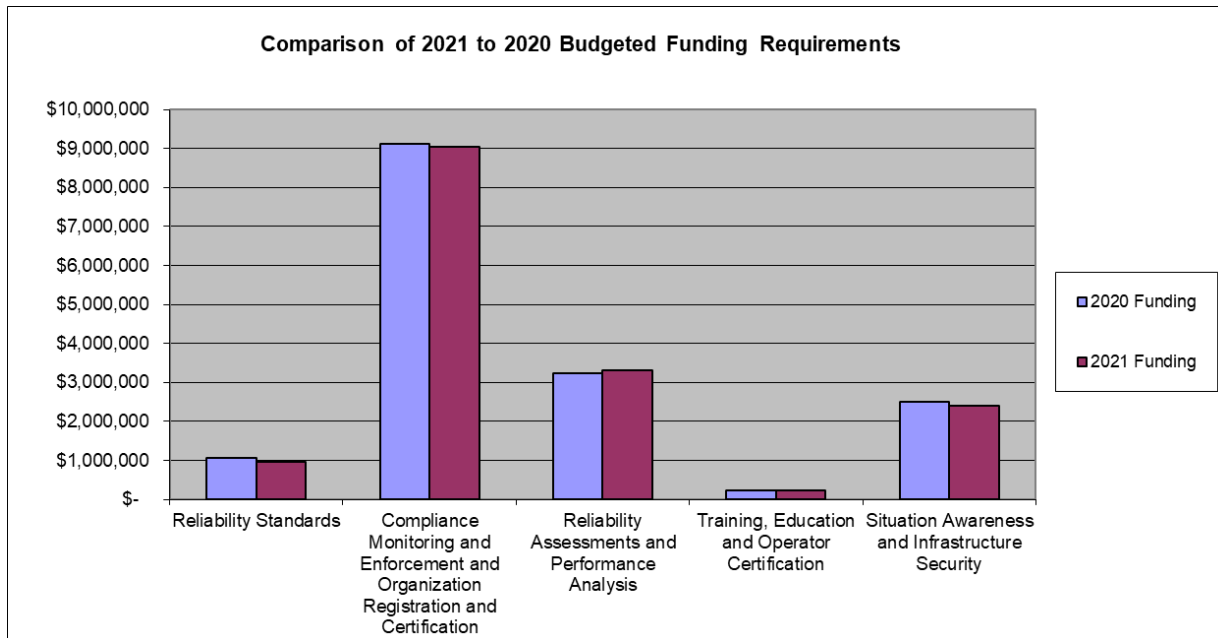
2020 Projections

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. 2020 Projections reflect expectations based on the first quarter variance report. It is anticipated that projections could change throughout 2020 and would be reflected in each subsequent quarter's variance report. The full health and subsequent financial impacts of the COVID-19 pandemic to the NPCC Region are currently unknown.

Summary by Program

Program	Budget 2020	Projection 2020	Budget 2021	Variance	
				2021 Budget v 2020 Budget	Variance %
Reliability Standards	\$ 1,071,015	\$ 1,071,015	\$ 968,675	\$ (102,339)	-9.6%
Compliance Monitoring and Enforcement and Organization Registration and Certification	\$ 9,109,633	\$ 8,922,633	\$ 9,030,944	\$ (78,689)	-0.9%
Reliability Assessments and Performance Analysis	\$ 3,231,169	\$ 3,231,169	\$ 3,314,770	\$ 83,601	2.6%
Training, Education and Operator Certification	\$ 239,412	\$ 239,412	\$ 242,257	\$ 2,845	1.2%
Situation Awareness and Infrastructure Security	\$ 2,505,877	\$ 2,443,877	\$ 2,406,482	\$ (99,396)	-4.0%
Total	\$ 16,157,107	\$ 15,908,107	\$ 15,963,128	\$ (193,979)	-1.2%

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

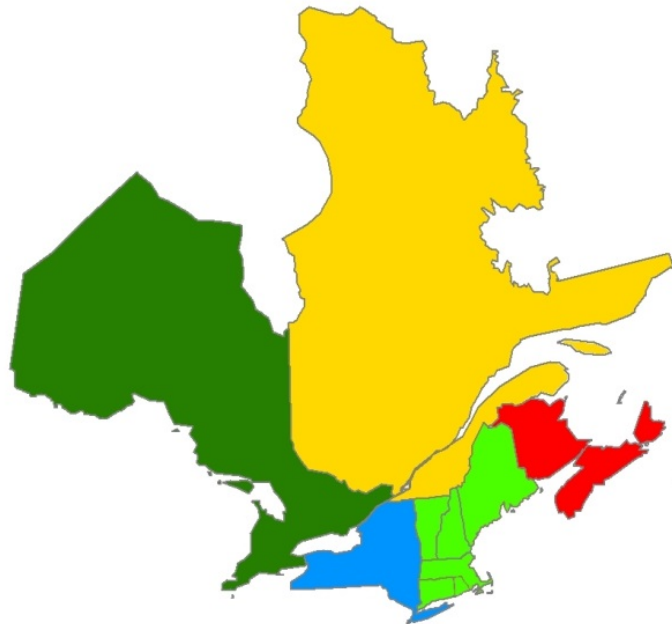
Total FTEs by Program Area	Budget 2020	Projection 2020	Direct FTEs 2021 Budget	Shared FTEs ¹ 2021 Budget	Total FTEs 2021 Budget	Change from 2020 Budget
REGIONAL ENTITY DIVISION						
Operational Programs						
Reliability Standards	1.93	1.93	1.00	0.84	1.84	-0.09
Compliance Monitoring and Enforcement and Organization Registration and Certification	18.00	17.45	19.45	0.00	19.45	1.45
Training, Education, and Operator Certification	0.10	0.10	0.10	0.00	0.10	0.00
Reliability Assessment and Performance Analysis	5.43	5.43	4.50	0.94	5.44	0.01
Situation Awareness and Infrastructure Security	5.40	5.40	5.40	0.00	5.40	0.00
Total FTEs Operational Programs	30.86	30.31	30.45	1.78	32.23	1.37
Administrative Programs						
Technical Committees and Member Forums	0.50	0.50	0.00	0.10	0.10	-0.40
General and Administrative	2.73	3.23	2.50	0.23	2.73	0.00
Information Technology	2.00	2.55	2.55	0.00	2.55	0.55
Legal and Regulatory	2.00	2.00	2.00	0.00	2.00	0.00
Human Resources	1.00	0.50	0.50	0.00	0.50	-0.50
Accounting and Finance	2.00	2.00	2.00	0.00	2.00	0.00
Total FTEs Administrative Programs	10.23	10.78	9.55	0.33	9.88	-0.35
Total FTEs	41.09	41.09	40.00	2.11	42.11	1.02

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

2020 Budget and Projection and 2021 Budget Comparisons

Statement of Activities and Capital Expenditures 2020 Budget & Projection, and 2021 Budget						
REGIONAL ENTITY DIVISION						
	2020 Budget	2020 Projection	Variance ⁽²⁾ 2020 Projection v 2020 Budget Over(Under)	2021 Budget ⁽³⁾	Variance 2021 Budget v 2020 Budget Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ 15,338,737	\$ 15,338,737	\$ -	\$ 15,154,584	\$ (184,153)	
Penalty Sanctions ⁽¹⁾	120,000	120,000	-	604,000	484,000	
Total ERO Funding	\$ 15,458,737	\$ 15,458,737	\$ -	\$ 15,758,584	\$ 299,847	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	67,500	33,750	(33,750)	67,500	-	
Interest & Investment Income	55,800	55,800	-	56,264	464	
Total Funding (A)	\$ 15,582,037	\$ 15,548,287	\$ (33,750)	\$ 15,882,348	\$ 300,311	
Expenses						
Personnel Expenses						
Salaries	\$ 7,704,262	\$ 7,544,262	\$ (160,000)	\$ 7,982,119	\$ 277,857	
Payroll Taxes	479,019	462,019	(17,000)	485,768	6,748	
Benefits	1,943,385	1,895,385	(48,000)	2,021,243	77,859	
Retirement Costs	882,950	858,950	(24,000)	909,832	26,882	
Total Personnel Expenses	\$ 11,009,617	\$ 10,760,617	\$ (249,000)	\$ 11,398,962	\$ 389,346	
Meeting Expenses						
Meetings & Conference Calls	\$ 397,750	\$ 332,750	\$ (65,000)	\$ 334,400	\$ (63,350)	
Travel	845,900	845,900	-	727,920	(117,980)	
Total Meeting Expenses	\$ 1,243,650	\$ 1,178,650	\$ (65,000)	\$ 1,062,320	\$ (181,330)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 2,071,150	\$ 2,071,150	\$ -	\$ 1,509,800	\$ (561,350)	
Office Rent	832,700	832,700	-	870,141	37,441	
Office Costs	685,981	685,981	-	837,420	151,439	
Professional Services	947,000	947,000	-	1,005,000	58,000	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	51,000	51,000	-	51,000	-	
Total Operating Expenses, excluding Depreciation	\$ 4,587,831	\$ 4,587,831	\$ -	\$ 4,273,361	\$ (314,470)	
Total Direct Expenses	\$ 16,841,098	\$ 16,527,098	\$ (314,000)	\$ 16,734,643	\$ (106,454)	
Indirect Expenses	\$ (409,450)	\$ (409,450)	\$ -	\$ (387,995)	\$ 21,456	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 16,431,647	\$ 16,117,647	\$ (314,000)	\$ 16,346,648	\$ (84,999)	
Change in Net Assets (=A-B)	\$ (849,611)	\$ (569,361)	\$ 280,250	\$ (464,301)	\$ 385,310	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 170,000	\$ 170,000	\$ -	\$ 94,000	\$ (76,000)	
TOTAL BUDGET (=B+C)	\$ 16,601,647	\$ 16,287,647	\$ (314,000)	\$ 16,440,648	\$ (160,999)	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (1,019,611)	\$ (739,361)	\$ 280,250	\$ (558,301)	\$ 461,310	
⁽¹⁾ \$604,000 of penalty sanctions collected to date and prior to June 30, 2020.						
⁽²⁾ 2020 Projections reflect expectations based on the first quarter statement of activities. It is anticipated that projections could change throughout 2020 and would be reflected in each subsequent quarter's statement of activities.						
⁽³⁾ 2021 Budget includes non-recurring succession planning costs in the amount of \$477,520 to be funded from existing Business Continuity Reserves, having no impact on assessments. The 2021 total operating budget exclusive of non-recurring succession planning costs is \$15,963,128.						

Section A – Regional Entity Division 2021 Business Plan and Budget



Section A — 2021 Regional Entity Division Business Plan and Budget

Reliability Standards Program

Reliability Standards Program Resources			
(in whole dollars)			
	2020 Budget	2021 Budget	Increase (Decrease)
Total FTEs	1.93	1.84	-0.09
Direct Expenses	\$693,683	\$629,706	(\$63,977)
Indirect Expenses	\$366,700	\$333,603	(\$33,097)
Other Non-Operating Expenses	\$0	\$0	\$0
Fixed Asset Additions	\$10,632	\$5,366	(\$5,265)
Total Funding Requirement	\$1,071,015	\$968,675	(\$102,339)

Program Scope and Functional Description

The NPCC Reliability Standards Program Area operates in accordance with NPCC’s filed and approved Regional Delegation Agreement and NERC Rules of Procedure Section 300. The program supports the ERO Standards Program Area roles and responsibilities, the ERO Enterprise Long-Term Strategy and aligns with NPCC’s Strategic Plan and Board of Director goals. NPCC’s Reliability Standards Program Area provides an efficient and effective mechanism for stakeholders to provide input and facilitate the development of, and improvement to, NERC and Regional reliability standards. NPCC works with the ERO and its stakeholders to expand the risk-based focus in all standards. The primary objectives of NPCC’s Reliability Standards Program Area are to support the development of ERO standards and Regional variances which establish “results-based” requirements and continue to deliver a high level of BPS reliability and security, with no identified gaps, and with due consideration given to cost effectiveness. NPCC supports the ERO efforts to develop reliability standards in a timely and efficient manner and which are also responsive to FERC Directives and industry risk.

At the Regional level, the standards program area develops, and maintains NPCC Regional Reliability Standards, and ERO Standards Variances for the northeast as required. The NPCC Reliability Standards Program Area also provides oversight to ensure that NPCC’s Regional Reliability Criteria contained in the form of Directories, are developed, approved, and maintained as necessary to implement, augment, or to facilitate compliance with NERC Reliability Standards. NPCC’s reliability criteria are not reliability standards but are mandatory and subject to enforcement as outlined in the NPCC *Amended and Restated Bylaws* and various ISO tariffs, and individual interconnection agreements, as well as other executed contractual agreements. Regional Reliability Criteria may also address issues not within NERC’s statutory jurisdiction for Reliability Standards, such as resource adequacy, and conform to requirements in Section 313 of the NERC Rules of Procedure.

In addition, the NPCC Reliability Standards Program Area has been conducting Distributed Energy Resources (DER) Forums. Conventional fossil fuel units and nuclear retirements are increasingly being replaced by Variable Energy Resources on the transmission system and DER on the distribution system. DER is commonly referred to as “grid edge resources” and has introduced the concept of decentralized generation. It is projected that the future reliable operation of the BES, as defined in the US Federal Power Act, will be increasingly dependent on these

resources. The control systems of DER introduce new capabilities that could enhance reliability and understanding interoperability issues between transmission and distribution systems will become increasingly important. NPCC is engaged in a number of areas to promote their reliable integration into the BES and opportunities to provide industry guidance for interconnecting DER.

2021 Key Assumptions

- The number of continent-wide Reliability Standards development projects is expected to remain relatively stable, except as required to address any new FERC directives to create or modify Reliability Standards, or industry submittals of standard authorization requests. Also, there will be continued development activity on Cyber standards and it is expected some new standards will be developed related to cold weather preparedness and resilience (hardening for Electromagnetic Pulse – EMP, and other high impact low frequency events).
- Continent-wide Reliability Standards projects will consist primarily of acting on recommendations of the various phases of the Standards Efficiency Review project, Standards Grading activities, conducting periodic reviews on existing Reliability Standards to improve their content and quality, responding to identified risks to reliability (including those that may be identified through the implementation of risk-based Compliance Monitoring and Enforcement), and addressing FERC directives that may arise.
- NPCC’s Regional Reliability Standards development activity is expected to remain at a stable level, driven by requests that the Regional Entity may receive or reliability issues that are identified and not under consideration by NERC. Creation of Variances to NERC Reliability Standards to address reliability concerns or to recognize the unique topology and reliability considerations of the Northeast (i.e. Québec’s recognition as an asynchronous interconnection within NPCC’s footprint) will be performed as necessary.
- The number of NERC and Regional standards interpretations is expected to remain low. Compliance Implementation Guidance documents, which provide approaches to being compliant with NERC Reliability Standards may be developed using NPCC’s open process and other industry vetting practices. These guidance documents are currently being developed by industry and the Standard Drafting Teams, and the number of requests may increase. The NPCC Reliability Standards program area will assist and facilitate support of these activities.
- Consistent with the NERC Rules of Procedure Sections 312 and 313, as continent-wide standards continue to evolve, NPCC Regional Standards and Criteria will need to be continually reviewed to ensure they augment but do not add redundancy to the ERO standards.

2021 Goals and Key Deliverables

- Participate in the annual development and revision of the NERC’s three-year Reliability Standards Development Plan (RSDP) through review, commenting, and other RSC activities.
- Participate in the NERC Standards Committee, as a representative for NPCC Regional stakeholders to advance strategic initiatives, to measure the effectiveness and quality of standards, support ERO efforts to address outstanding FERC Directives, and provide input in the prioritization of standards development projects.
- Support further development of cost effectiveness principles processes and pilots. Continue to provide insights to NERC, based on NPCC experiences, regarding strategy for developing cost effectiveness analysis for standards and identify opportunities to identify cost of risk mitigation for the draft standards.

- Participate in the NERC Standards Efficiency Review Project to retire standard requirements that are duplicative, administrative and add no additional benefit to the reliable operation of the bulk electric system.
- Participate in the development of ERO Reliability Standards specified in NERC’s three-year Reliability Standards Development 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 under development or revision by leveraging existing NPCC Task Forces and subject matter experts and coordinate NPCC comments for Northeastern North America.
- Participate in the Periodic Review Standing Team’s grading efforts and coordinate and represent the Regional and interregional input.
- Assist NERC’s review of all industry “Requests for Interpretations” of NERC Reliability Standards.
- NPCC staff and Regional drafting team volunteers will participate in the drafting of all ERO standards and provide support for development of improvements to standards. Those chosen to participate in drafting of standards will provide a point of contact for the NPCC Regional input to the standard being developed.
- NPCC and its members will review and coordinate comments on FERC staff informal assessments of the ERO Enterprise as appropriate.
- Participate in pre-ballot reviews of ERO standards and coordinate the development of consensus recommendations of the NPCC Members to the NERC Standards Drafting Team (SDT) and provide a list of any unaddressed issues to allow the Members to cast a ballot based on regional concerns to enhance the efficiency of the ERO standards development projects.
- Review and identify issues and concerns raised in FERC NOPRs and NOIs for any and all standards related issues as appropriate.
- Educate and notify stakeholders and regulators about issues related to standards development through various means such as webinars and workshops.
- Provide outreach to industry trade groups such as the North American Generator Forum and North American Transmission Forum when requested.
- Monitor the NERC Reliability Issues Steering Committee (RISC) activities as they identify emerging risks and develop recommended actions to mitigate such risks. Provide a Regional point of contact for all potential reliability related risks and gaps within the Northeast or as noted by NPCC’s stakeholders.
- Participate in and provide support to critical standards projects, such as CIP Supply Chain, Facility Ratings (IROL and SOL development), Geomagnetic Disturbances, High Altitude Electromagnetic Pulse (HEMP), changes to standards driven by inverter based DERs, etc.
- Identify opportunities and initiate Regional Variances to the NERC Reliability Standards as soon as possible, allowing incorporation into the continent-wide standard during the development process.
- Conduct reviews of Regional Standards as necessitated by the revision and approval of any associated Continent-wide NERC reliability standards or further reliability related need.
- Conduct the development of any Québec Interconnection-Wide variances to NERC continent-wide standards using the NPCC Reliability Standards Development Process.
- Identify potential reliability benefits and impacts to the BES as a result of DER penetration.
- Conduct ongoing DER Forum activities to solicit and identify both opportunities and challenges to enhancing reliability through education, promotion of awareness and developing guidance, particularly for interconnection of utility scale DER on the Distribution System.

- Update, maintain and revise the NPCC DER guidance document as necessary and promote consistency across the NPCC footprint where possible.
- In conjunction with the Reliability Coordinating Committee, review any DER impacts identified by stakeholders and develop an approach to promote awareness and resolution of any issues.
- Identify opportunities to improve resilience of the BES and develop potential approaches either with the ERO or within the Region.
- Monitor state and provincial proceedings as they relate to the deployment of DER to meet emissions targets (e.g. New York Dept. of Public Service Interconnection Technical Working Group, Massachusetts Technical Standards Group, etc.)
- Identify and coordinate reliability related issues with applicable governmental authorities.
- Ensure the topics addressed by the Reliability Standards align with changing industry and reliability objectives.
- Participate in reliability metrics developmental activities to identify potential measures for benchmarking of reliability and standards to determine if an adequate level of reliability is being achieved through the Enhanced Periodic Review Standing Review Team activities.
- Identify opportunities and processes for cost-effectiveness analysis activities to determine the need to revise a standard during the Periodic Review or Standards Grading efforts.
- Identify any emerging interconnection-wide reliability issues which may need standards solutions and forward to the NERC Reliability Issues Steering Committee for their consideration.
- Identify opportunities to increase reliability or mitigate emerging risk through the revision of standards and their associated requirements.
- Identify any North American Electric Standards Review Board (NAESB) activities which may impact ERO standards.
- Identify potential market related issues that reliability standards or DER may cause during the NPCC RSC coordination and review process.
- Participate in NPCC Compliance and Standards Workshops and any NERC workshops and webinars to promote industry awareness.

Based on the portion of professional/technical staff time and other resources devoted to Reliability Standards development, NPCC estimates that it will expend approximately 6% of its resources on this activity.

Resource Requirements

Personnel

- Partial reallocation of one FTE to Member Forums program area.

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be remotely attended via teleconference and webinar in 2021.

Reliability Standards Program

Funding sources and related expenses for the Reliability Standards section of the 2021 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 2020 Budget & Projection, and 2021 Budget						
Reliability Standards						
	2020 Budget	2020 Projection	Variance 2020 Projection v 2020 Budget Over(Under)	2021 Budget	Variance 2021 Budget v 2020 Budget Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ 1,063,510	\$ 1,063,510	\$ -	\$ 934,193	\$ (129,317)	
Penalty Sanctions	7,505	7,505	-	34,482	26,977	
Total ERO Funding	\$ 1,071,015	\$ 1,071,015	\$ -	\$ 968,675	\$ (102,339)	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	-	-	-	-	-	
Total Funding (A)	\$ 1,071,015	\$ 1,071,015	\$ -	\$ 968,675	\$ (102,339)	
Expenses						
Personnel Expenses						
Salaries	\$ 400,744	\$ 400,744	\$ -	\$ 359,491	\$ (41,253)	
Payroll Taxes	23,034	23,034	-	21,383	(1,650)	
Benefits	110,172	110,172	-	111,331	1,159	
Retirement Costs	43,833	43,833	-	38,780	(5,053)	
Total Personnel Expenses	\$ 577,783	\$ 577,783	\$ -	\$ 530,986	\$ (46,797)	
Meeting Expenses						
Meetings & Conference Calls	\$ 5,000	\$ 5,000	\$ -	\$ 4,000	\$ (1,000)	
Travel	90,900	90,900	-	72,720	(18,180)	
Total Meeting Expenses	\$ 95,900	\$ 95,900	\$ -	\$ 76,720	\$ (19,180)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 20,000	\$ 20,000	\$ -	\$ 20,000	\$ -	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	2,000	2,000	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Total Operating Expenses, excluding Depreciation	\$ 20,000	\$ 20,000	\$ -	\$ 22,000	\$ 2,000	
Total Direct Expenses	\$ 693,683	\$ 693,683	\$ -	\$ 629,706	\$ (63,977)	
Indirect Expenses	\$ 366,700	\$ 366,700	\$ -	\$ 333,603	\$ (33,097)	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 1,060,383	\$ 1,060,383	\$ -	\$ 963,309	\$ (97,074)	
Change in Net Assets (=A-B)	\$ 10,632	\$ 10,632	\$ -	\$ 5,366	\$ (5,265)	
Fixed Asset Additions, excluding Right of Use Assets (C)	10,632	10,632	-	5,366	(5,265)	
TOTAL BUDGET (=B+C)	\$ 1,071,015	\$ 1,071,015	\$ -	\$ 968,675	\$ (102,339)	
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)			
	2020 Budget	2021 Budget	Increase (Decrease)
Total FTEs	18.00	19.45	1.45
Direct Expenses	\$5,590,473	\$5,447,816	(\$142,657)
Indirect Expenses	\$3,420,003	\$3,526,402	\$106,399
Other Non-Operating Expenses	\$0	\$0	\$0
Fixed Asset Additions	\$99,157	\$56,727	(\$42,431)
Total Funding Requirement	\$9,109,633	\$9,030,944	(\$78,689)

Program Scope and Functional Description

The NPCC Compliance Monitoring and Enforcement and Organization Registration and Certification Program (CORC) Program Area operates in accordance with NPCC's filed and approved Regional Delegation Agreement, the NERC Rules of Procedure, and individual Canadian Provincial MOUs and/or Agreements. The program supports Compliance Enforcement (Section 400) and Organization Registration and Certification (Section 500), the ERO Enterprise Long-Term Strategy, and aligns with NPCC Board of Director goals and strategies.

The CORC Program Area 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) data application (Align) in the United States, including the compliance monitoring, mitigation assessment and enforcement of NERC Reliability Standards and Regional Reliability Standards;
- 3) In accordance with the relevant memorandums of understanding (MOU's), the implementation of the risk-based NERC CMEP in Ontario and Nova Scotia, including the assessment and enforcement of NERC Reliability Standards and Regional Reliability Standards effective in those jurisdictions;
- 4) The implementation of the Québec Reliability Standards Compliance Monitoring and Enforcement Program (QCMEP), including the compliance monitoring, assessment and enforcement of NERC Reliability Standards and Regional Reliability Standards effective in Quebec; and
- 5) The implementation of the New Brunswick Compliance Monitoring and Enforcement Program (NBCMEP) in New Brunswick, including the compliance monitoring, assessment and enforcement recommendations of the NERC Reliability Standards and Regional Reliability Standards effective in New Brunswick.

Through the CORC Program Area, NPCC strives to be a strong enforcement authority that is independent, objective, fair, and promotes a culture of reliability excellence through risk-informed compliance monitoring, mitigation, enforcement, and registration. To accomplish this goal, CORC is divided into three sub-program areas: Compliance Fundamentals; Compliance Audits and Investigations; and Compliance Mitigation and Enforcement.

Compliance Fundamentals

The Compliance Fundamentals sub-program area is responsible for registration and certification activities and for general compliance activities that span across the other two sub-program areas. The Compliance Fundamentals sub-program area:

- Collaborate across the ERO through participation in the Risk Performance and Monitoring Group (RPMG), Enforcement Group (EG), Organization Registration and Certification Group (ORCG), and the development of the annual ERO CMEP staff workshop.
- Identifies and registers the BES owners, operators, and users that are required to comply with the NERC and Regional Reliability Standards,
- Conducts Certifications in accordance with the NERC ROP,
- Leads the development of the annual implementation plans (ERO Enterprise, Quebec, New Brunswick),
- Implements the ERO Enterprise registration tool (CORES -Centralized Organization Registration ERO System) and the ERO Enterprise CMEP data application (Align),
- Responds to any complaints submitted to NPCC,
- Maintains any NPCC specific compliance tools or programs needed,
- Conducts two stakeholder compliance workshops on an annual basis,
- Assesses compliance trends and conducts additional outreach, training, and education to support the implementation of Reliability Standards,
- Conducts Inherent Risk Assessments (IRA) on registered entities,
- Conducts formal Evaluations of Internal Controls (EIC) on volunteering registered entities,
- Develops Compliance Oversight Plans (COP) for registered entities,
- Assists with the development of the annual CMEP implementation plans,
- Provides the basis for each registered entity's Compliance Oversight Plan.

Compliance Audits and Investigations

The Compliance Audits and Investigations sub-program area is responsible for conducting all compliance monitoring activities. The Compliance Audits and Investigations sub-program area is focused on the most significant risks to the BPS. The Compliance Audits and Investigations sub-program area:

- Conducts NPCC compliance monitoring activities, including audits, spot checks, and guided self-certifications,
- Incorporates the results of the IRA and EIC into its compliance monitoring process,
- Assesses the maturity of the entity's internal controls during audits,
- Engages the entity on the maturity of the Internal Compliance Program
- Issues reports, including audit reports, spot check reports, guided self-certification reports,
- Implements and maintains the Critical Infrastructure Protection (CIP) Standards Technical Feasibility Exceptions process.

Compliance Mitigation and Enforcement

The Compliance Mitigation and Enforcement sub-program area is responsible for undertaking enforcement activities in accordance with risk-based approaches and conducting technical assessments of registered entities' plans and activities to mitigate noncompliance. Depending on the jurisdiction, enforcement either makes official recommendations to the appropriate regulatory authority or assists and coordinates with NERC to make such official recommendations. The Compliance Mitigation and Enforcement sub-program area:

- Determines the relevant facts and circumstances necessary to understand each noncompliance,

- Evaluates and assigns a risk level to each noncompliance,
- Advises on the level of mitigation required to prevent recurrence of the issue,
- Evaluates and approves the mitigation activities or Mitigation Plan(s) for each noncompliance,
- Assesses the relevant compliance history for each noncompliance,
- Determines the disposition method for each noncompliance,
- Conducts settlement negotiations,
- Calculates penalty sanctions in consistent fashion, and
- Evaluates registered entities for the self-logging program.

2021 Key Assumptions and Cost Impacts

2020	Projected 2021
8 On-Site O&P Audits	8 On-Site O&P Audits
10 On-Site CIP Audits	8 On-Site CIP Audits
40 Off-Site Audits	30 Off-Site O&P Audits
25 Off-Site CIP Audits	10 Off-Site CIP Audits
10 Spot Checks	13 Spot Checks
40 Self-certifications	60 Self-certifications
50 Inherent Risk Assessments	46 Inherent Risk Assessments
7 On-site O&P Internal Control Evaluations	8 Evaluations of Internal Controls
10 On-site CIP Internal Control Evaluations	50 Internal Compliance Program Reviews
225 Violations (Estimated)	225 Violations (Estimated)
Settlements Covering 80 Violations	Settlements Covering 80 Violations
	48 Compliance Oversight Plans (Full Implementation in 2021)
1 Hearings (Unbudgeted)	1 Hearings (Unbudgeted)
1 CI (Estimated)	1 CI (Estimated)
2 Entity Certifications	2 Entity Certifications

- Compliance Monitoring activities will be cost effectively addressed with the addition of two employee auditors (net increase of 1.45 compliance FTEs after the partial re-allocation of a compliance position to IT in 2020), offset by a decrease in independent contractor audit costs.
- The 2021 Business Plan projects the same level of enforcement processing activities as the 2020 Budget. It is expected that the increase in violation processing will also continue in 2021. This is partly due to the increase in the number of cyber systems that are in scope for compliance in most jurisdictions.
- One Compliance Investigation is projected for 2021. Compliance Investigations are manpower intensive for NPCC staff (requiring allocation of more resources and potentially higher than normal costs).

2021 Goals and Key Deliverables

- Conduct scheduled compliance monitoring and enforcement activities pursuant to the 2021 Implementation Plans.
- Continue applying risk-based approaches for CMEP, registration, and certification activities.

- Identify potential issues related to NERC Reliability Standards as a result of compliance monitoring, enforcement and event analysis activities.
- Continue to implement compliance responsibilities in Canada based on the unique regulatory structure specific to each provincial and/or governmental jurisdiction.
- Evaluate monitoring, violation processing, risk-assessment, registration and certification program for sufficiency and effectiveness. Modify as needed.
- Collaborate within the ERO Enterprise to develop and implement a common and consistent CMEP data application (Align) for compliance processes, information systems, and methods among Regions.
- Provide education and outreach to the registered entities on all CMEP, registration, and certification topics, including the development and implementation of the ERO Enterprise Registration tool (CORES – Centralized Organization Registration ERO System) and the Align CMEP data application.
- Conduct two in-person Compliance Workshops.
- Develop annual reports for QCMEP/CMEP activity in Québec and New Brunswick.
- Develop and/or provide input on 2021 CMEP Implementation Plans (ERO Enterprise, Québec, New Brunswick).
- Attend training necessary and/or beneficial to performing Registration, Certification, Entity Risk Assessment, Monitoring, and Enforcement activities.
- Assure that NPCC staff is appropriately trained to conduct Certification and Auditing activities.
- Provide detailed responses to oversight activity performed by NERC, FERC, and other relevant authorities.
- Continue to perform and update IRAs for registered entities.
- Continue to perform formal EIC outreach for registered entities that volunteer for such an assessment.
- Continue to assess internal controls during monitoring engagements
- Conduct 2021 Compliance Engagement Schedule based on budget, risk to the BPS, and number of registered entities
- Utilize the ERO Risk-Based initiatives by:
 - Utilizing the Audit Checklist and Auditor’s Handbook for all on-site and off-site audits.
 - Preparing an updated Inherent Risk Assessment as necessary for all scheduled engagements, performing a formal Evaluation of Internal Controls for all entities that volunteer, and developing Compliance Oversight Plans (COP) for audited entities.
- Continue to perform comprehensive enforcement investigations to determine the relevant facts and circumstances necessary to understand each noncompliance, assess the risk, and evaluate the mitigation activities or Mitigation Plan for each noncompliance. Determine the disposition method in accordance with established risk-based approaches (i.e. Compliance Exceptions, FFTs, Simplified Identification Correction Method (Québec), Settlements, etc.)
- Evaluate the mitigation activities or Mitigation Plan for each noncompliance, track the progress and verify the completion of each Mitigation Plan.
- As necessary, represent NPCC during any enforcement hearings before the NPCC Hearing Body, the NERC Hearing Body, the Régie, or the NBEUB.
- Evaluate registered entities Internal Compliance Programs to determine entry into the self-logging program.

- Analyze noncompliance trends and associated risks in order to develop guidance to registered entities in support of a culture of reliability.
- Perform outreach (webinars, workshops) to educate entities on noncompliance root causes and on techniques for noncompliance assessment and communication associated with self-reporting to NPCC; including the provision of guidance on the development of mitigation activities that will prevent recurrence.
- Assess evolving cyber security risks for opportunities to develop internal control flow diagrams in order to provide entity guidance.

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 56% of its resources on this activity.

Resource Requirements

Personnel

- Two additional employee auditors (net increase of 1.45 FTEs after the partial re-allocation of a compliance position to IT in 2020), to increase in-house expertise rather than utilizing independent contractor labor. The increase in personnel expenses will be offset by a decrease in Consultants and Contracts.

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be remotely attended via teleconference and webinar in 2021.

Fixed Assets

- No new functionality is planned for the Compliance Issues Tracking System (CITS) and CMEP Data Administration Application (CDAA) at this time based on the planned implementation of the ERO Enterprise CMEP data application (Align).

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 2021 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						
2020 Budget & Projection, and 2021 Budget						
Compliance Monitoring and Enforcement and Organization Registration and Certification						
				Variance		Variance
	2020	2020	2020 Projection	v 2020 Budget	2021	v 2020 Budget
	Budget	Projection	Over(Under)	Budget	Over(Under)	Over(Under)
Funding						
ERO Funding						
ERO Assessments	\$ 9,034,625	\$ 9,034,625	\$ -	\$ 8,201,673	\$ (832,952)	
Penalty Sanctions	69,994	69,994	-	364,499	294,505	
Total ERO Funding	\$ 9,104,618	\$ 9,104,618	\$ -	\$ 8,566,171	\$ (538,447)	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	-	-	-	-	-	
Total Funding (A)	\$ 9,104,618	\$ 9,104,618	\$ -	\$ 8,566,171	\$ (538,447)	
Expenses						
Personnel Expenses						
Salaries	\$ 2,928,438	\$ 2,808,438	\$ (120,000)	\$ 3,058,980	\$ 130,541	
Payroll Taxes	202,717	189,717	(13,000)	214,978	12,261	
Benefits	732,104	696,104	(36,000)	834,388	102,284	
Retirement Costs	314,664	296,664	(18,000)	333,201	18,537	
Total Personnel Expenses	\$ 4,177,923	\$ 3,990,923	\$ (187,000)	\$ 4,441,546	\$ 263,623	
Meeting Expenses						
Meetings & Conference Calls	\$ 15,000	\$ 15,000	\$ -	\$ 12,000	\$ (3,000)	
Travel	300,400	300,400	-	269,120	(31,280)	
Total Meeting Expenses	\$ 315,400	\$ 315,400	\$ -	\$ 281,120	\$ (34,280)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 1,097,150	\$ 1,097,150	\$ -	\$ 707,150	\$ (390,000)	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	18,000	18,000	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Total Operating Expenses, excluding Depreciation	\$ 1,097,150	\$ 1,097,150	\$ -	\$ 725,150	\$ (372,000)	
Total Direct Expenses	\$ 5,590,473	\$ 5,403,473	\$ (187,000)	\$ 5,447,816	\$ (142,657)	
Indirect Expenses	\$ 3,420,003	\$ 3,420,003	\$ -	\$ 3,526,402	\$ 106,399	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 9,010,476	\$ 8,823,476	\$ (187,000)	\$ 8,974,218	\$ (36,258)	
Change in Net Assets (=A-B)	\$ 94,142	\$ 281,142	\$ 187,000	\$ (408,046)	\$ (502,189)	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 99,157	\$ 99,157	\$ -	\$ 56,727	\$ (42,431)	
TOTAL BUDGET (=B+C)	\$ 9,109,633	\$ 8,922,633	\$ (187,000)	\$ 9,030,944	\$ (78,689)	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (5,015)	\$ 181,985	\$ 187,000	\$ (464,773)	\$ (459,758)	

Reliability Assessment and Performance Analysis Program

Reliability Assessment and Performance Analysis Program Resources			
(in whole dollars)			
	2020 Budget	2021 Budget	Increase (Decrease)
Total FTEs	5.43	5.44	0.01
Direct Expenses	\$2,169,556	\$2,312,599	\$143,043
Indirect Expenses	\$1,031,701	\$986,305	(\$45,396)
Other Non-Operating Expenses	\$0	\$0	\$0
Fixed Asset Additions	\$29,913	\$15,866	(\$14,047)
Total Funding Requirement	\$3,231,169	\$3,314,770	\$83,601

Program Scope and Functional Description

NPCC, through its top technical committee, the Reliability Coordinating Committee (RCC), integrates the deliverables of its Task Forces’ and Working Groups’ Reliability Assessment and Performance Analysis (RAPA) related activities.

Seasonal assessments of the overall NPCC resource adequacy 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 criteria 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.

2021 Key Focus Areas

In collaboration with NERC, Key Focus Area activities for 2021 include:

- Undertake special assessments and studies, including case-specific examples of real and potential impacts, to understand emerging risks from new technologies, and launch appropriate task forces to develop mitigation options. Some of these efforts may be in collaboration with state regulators, policymakers, and stakeholders, such as the National Association of Regulatory Utility Commissioners (NARUC), focusing on distributed energy resources and other risks emanating from events or conditions on the increasingly integrated distribution system that may cause cascading of the BPS.
- Integrate NERC and Regional Entity assessments to ensure that identified risks are being properly addressed, and continue to monitor those risks to understand region-specific expressions of industry-wide issues and impacts.
- Develop measures of BPS and cyber resilience, including the ability to prepare for, withstand, and recover from extreme contingencies, such as high-impact, low frequency events, and identify processes and approaches to enhance resilience through NERC’s reliability and security toolkit as well as industry action. Work in collaboration with the forums and Department of Energy (DOE).

- Use data analytics, research, and relationships with other critical infrastructures to identify leading indicators of emerging risks and the potential harm of currently unknown risks, and prioritize and communicate these to industry for awareness and mitigation.
- Collaborate effectively with other non-profit organizations that share elements of the ERO Enterprise’s reliability and security mission, and seek out and work with representatives of academia, other critical infrastructures, and international experts to broaden the ERO Enterprise’s collective knowledge and awareness of current and unknown risks and strategies to address them.
- Leveraging the Regional Entity’s specialized and localized point of view, strengthen and expand outreach, coordination, and collaboration with state energy regulators and related offices to address risks to reliability stemming from the relocation of resources and interdependency between the operations of distribution and the BPS.
- Strengthen proactive outreach and communications with key provincial, federal, and state regulatory, legislative, and policy bodies and associations across North America.

Eastern Interconnection Reliability Assessment Group (ERAG)

The primary function of the Eastern Interconnection Reliability Assessment Group (ERAG) is to support 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 Committee.

NPCC RAPA staff participates with the ERAG Committee as one of the four Eastern Interconnection Regional Entities, and acts as the liaison between the ERAG Multiregional Modeling Working Group (MMWG), NPCC Reliability Coordinating Committee (RCC), NPCC Task Force on System Studies (TFSS) and the NPCC SS-37 Working Group on Base Case Development.

ERAG Committee Activities 2021 Goals and Deliverables

- Oversee the steady state and dynamic simulation base case data compilation and development.
- Oversee the ERAG assessment plan and coordinate assessment efforts with NERC Assessment Program staff. Determine the targeted ERAG assessment topic for 2021. Determine the method of assessment: analytical study, research effort, peer review.
- Make appropriate revisions, as necessary, to the ERAG Strategic Direction (i.e. anticipated new developments in MMWG process and system assessments).
- Develop and approve the ERAG activity budgets.

Multi-Regional Modeling Working Group 2021 Goals and Deliverables

- Facilitate the completion of the steady state and dynamic simulation base case data compilation and development for the 2021 series of cases.
- Check and confirm that the dynamic model data passes all applicable checks and acceptance criteria and emphasize the accurate modeling of distributed energy resources.
- Incorporate dispatch information into the future and seasonal MMWG base cases so that the dispatches are more closely aligned with economic dispatch practices.
- Continue to improve the representations of the governor-turbine plant control models.
- 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.

ERAG System Assessments 2021 Goals and Deliverables

- Determine an appropriate topic of focus for the 2021 ERAG Assessment. In recent years, ERAG has conducted peer reviews on select topics in lieu of conducting assessments. Conduct the 2021 ERAG Assessment and prepare any associated documentation.
- Coordinate Assessment efforts with the NERC Reliability Assessment and System Analysis (RASA) Program staff to incorporate any risk-based or other approaches to supplement NERC Assessments.

Bulk Electric System Notification and Exception (BESnet) application and Exception Request (ERs)

NPCC supports maintenance of the BESnet application and the processing of the Regional BES Exception Requests (ERs), including periodic certifications that the basis for an Element being included or excluded in the BES through the Exception remains valid. No NPCC Exclusion Exception Requests are due for recertification in 2021. Analysis of an Exception Request from a New Brunswick entity may extend into 2021.

2021 NERC Activities

NPCC will provide the Regional perspective with appropriate NPCC RAPA staff participation on selective NERC Technical Committees and key related NERC Subcommittees, Task Forces and Working Groups, including:

- Inverter-Based Resource Performance Task Force (IRPTF)
- Performance Analysis Subcommittee (PAS)
 - Demand Response Availability Data System Working Group (DADSWG)
 - Generating Availability Data System Working Group (GADSWG)
 - Misoperation Information Data Analysis System Working Group (MIDASWG)
 - Transmission Availability Data System Working Group (TADSWG)
- Reliability Assessment Subcommittee (RAS)
 - Probabilistic Assessment Working Group (PAWG)
- System Analysis and Modeling Subcommittee (SAMS)
 - Load Modeling Task Force (LMTF)
 - Power Plant Model Verification Task Force (PPMVTF)
 - Node Breaker Modeling Group (NBMG)
- System Protection and Control Subcommittee (SPCS)
- Synchronized Measurement Subcommittee (SMS)
- System Planning Impacts from Distributed Energy Resources Working Group (SPIDERWG)
- ERO RAPA Steering Group (ERO RAPA-SG)
 - Reliability Assessment Ad Hoc Team
 - Performance Analysis Ad Hoc Team
 - Event Analysis Ad Hoc Team
 - Situational Awareness Ad Hoc Team
 - System Analysis Ad Hoc Team

ERO – Operations Leadership Team (OLT) 2021 Activities

- Provide analytic support for the ERO Executive Committee;
- Bulk Electric System Exception Process and BES Definition sub-team, under Organization Registration and Certification Group (ORCG);

- ERO-RAPA Group; and,
- Other activities as directed by the ERO Executive Committee.

2021 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 the reliable and efficient planning of the international interconnected bulk power systems in Northeastern North America through the coordination of NPCC Balancing Authority or Control Area (Area) and NERC planning processes and activities.

TFCP Reliability Assessment and Performance Analysis 2021 Goals and Deliverables

- Coordinate the NPCC Area reviews in accordance with the requirements of NPCC Directory No. 1, “Design and Operation of the Bulk Power System.”
- Oversee the NPCC Directory No. 1 Implementation Plan (Dated: September 30, 2015).
- Coordinate the review of proposed new, modified and retired remedial action schemes (RAS) in accordance with the NPCC Directory No. 7, “Procedure for Review of System Special Protection Systems.”
- Coordinate the development of additional NPCC Criteria, as necessary, and track any new and developing Regional NPCC Standards through the NPCC Regional Standards Committee.
- Monitor industry practices and make recommendations to the NPCC Regional Standards Committee regarding related NERC Standards.
- Oversee the activities of the NPCC CP-8 Working Group.
- Evaluate and recommend RCC approval of NPCC Area Transmission Reviews.
- Evaluate and recommend RCC approval of NPCC Area Reviews of Resource Adequacy.
- Conduct, through the CP-8 Working Group, the 2021 NPCC Tie Benefit Study.
- Coordinate the NPCC transition from SPS to RAS.
- Lead the NPCC Task Forces in conducting the review of the reliability and cost benefit of Directory No. 1, Design and Operation of the BPS.
- Support related reliability activities, including consideration of any requests for sub-regional assessments.
- Keep informed on studies and developments in neighboring systems which might impact NPCC reliability.
- Assess use of emerging technologies for consistency with current best reliability practices.
- Review Events Analysis Lessons Learned using the Events Analysis discussion/review template.
- Review the load shape assumption through the CP-8 Working Group used in NPCC Multi-Area probabilistic reliability Assessments.
- Monitor the reliability issues associated with fuel supply, demand resources, energy efficiency, and conservation methods including all intermittent renewable resources and distributed energy resources.

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 international interconnected bulk power systems in Northeastern North America and for the review of related NPCC documents.

TFSS Reliability Assessment and Performance Analysis 2021 Goals and Deliverables

- Review and recommend approval of Area Transmission Reviews.
- Review and classify new and modified Remedial Action Schemes.
- Review and Implement the NPCC A-10 Criteria.
- Perform annual review and update of the Major Project List.
- Participate in the development and submission of NPCC comments/inputs into the development of regional and/or continent-wide reliability standards that address the NERC Reliability Standards.
- Provide support and technical input, for Task Force related Bulk Electric System risks as identified by the NERC Reliability Issues Steering Committee.
- Review existing NPCC Regional Criteria and procedures for validation of data used in power flow and dynamic simulations; propose changes to provide for adequate data validation.
- Perform investigation of Distributed Energy Resources modeling practices.
- Annually develop a library of power flow base cases and associated dynamic cases.
- Enable the annual review of the NPCC event replication procedure and ensure the preparedness of the NPCC Planning Coordinators to develop base cases for a required investigation of a major system event in or affecting NPCC and support the performance of event replication by benchmarking simulations against actual system performance.
- Work with software vendors and NERC to enhance the capability for dynamic simulations.
- Continue to investigate the use of dynamic load models for transient stability studies.
- Investigate the use of load monitoring equipment to aid in the benchmarking of dynamic load models used in transient stability studies.

Task Force on System Protection

The primary purpose of the NPCC Task Force on System Protection (TFSP) is to promote the reliable and efficient operation of the international interconnected bulk power systems in Northeastern North America through the establishment of directories, criteria, guidelines, and procedures and coordination of design, relative to NPCC protection systems.

TFSP Reliability Assessment and Performance Analysis 2021 Goals and Deliverables

- Assess proposed protection systems and remedial action schemes.
- Participate and/or serve as lead Task Force in the implementation of applicable Regional NERC Reliability Standards.
- Review and respond to Questions, Requests for Interpretations and/or Clarifications related to bulk power system protection requirements in NPCC Directories and Criteria.
- Participate in the ongoing development and submission of NPCC inputs/comments into the development of related NERC Reliability Standards.
- Manage the misoperations review and analysis of transmission and generation protection systems.
- Monitor the NPCC metric on protection system Misoperation Risk Index Score calculations.

-
- Review mitigations and/or progress reports for Bulk Power System Risk Reduction Implementation.
 - Provide support and technical input for related protection system risks as identified by the NERC Reliability Issues Steering Committee.
 - Conduct review/development of related NPCC Directories.
 - Consistent with the TFSP’s scope, conduct joint meeting with other Regions to share best practices and experiences.
 - Review ongoing changes to the North American Electric Reliability Corporation Critical Infrastructure Protection Standards and evaluate impacts to Registered Entities Protection Systems, SCADA, and Monitoring Systems.

Task Force on Coordination of Operation

The NPCC Task Force on Coordination of Operation (TFCO) primarily facilitates the coordination of operations among the NPCC Reliability Coordinator areas and adjacent NERC Regions to enhance the reliability of the bulk power system.

TFCO Reliability Assessment and Performance Analysis 2021 Goals and Deliverables

- Prepare and conduct the spring and autumn NPCC System Operator Seminars.
- Develop and securely disseminate the annual compilation of “Facilities for Notification.”
- On a biennial basis, perform a voluntary Critical Operating Tool Analysis Survey accompanied with the previous survey’s recommendation to disseminate and assess the implementation of best practices and recommendations.
- Support an annual enhanced, wide-area restoration drill among the Reliability Coordinator areas of NPCC and their neighboring Reliability Coordinators incorporating the annual review of the NPCC regional restoration plan.
- Support and take part in a biennial, continent-wide Grid Security Exercise (GridEx), including a review of the associated reports and Lessons Learned.
- Monitor and discuss the trends and impacts of the changing resource mix (including (intermittent, DER, batteries, etc.) and the effects of the proliferation of the new resources on real-time operations, as well as behavior during and impacts on recovery and restoration plans.
- Review and analyze the performance of Simultaneous Activation of Reserve (SAR) implementation following an event to enhance the process.
- Conduct seasonal NPCC Reliability Assessment and incorporate the multi-area probabilistic simulation results in each assessment. Coordinate the NPCC input for the annual short-term NERC Reliability Assessment Subcommittee assessment.
- Develop respective scopes for and conduct reviews of applicable NPCC Directories, Criteria, Guides and Procedures in accordance with their applicable review dates.
- Assess the current capabilities of system operations communication systems.
- Evaluate practices, procedures and capabilities of system operators in detection and operational response to potential cyber security incidents, as well as notification and coordination practices and capabilities among NPCC and neighboring system operators in response to cyber intrusion into operations systems.

NPCC Regulatory/Governmental Affairs Advisory Group

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 reliability matters. A related contributing activity is to strengthen proactive outreach and communication with key provincial, federal, state regulatory, legislative, and policy bodies and associations across North America.

NPCC Regulatory/Governmental Affairs Advisory Group 2021 Goals and Deliverables

- Continued outreach to NPCC’s state electricity and environmental regulators stressing the importance of understanding and considering reliability impacts during the development of State/Provincial initiatives (such as the identified Essential Reliability Services, Distributed Energy Resource integration).
- Focus on initiatives concerning regional planning, distributed energy resource requirements, the timing of new generation resources and transmission infrastructure projects.

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% of its resources on these activities.

Resource Requirements

Personnel

- No significant changes.

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be remotely attended via teleconference and webinar in 2021.

Consultants and Contracts

- Increase in consultants and contracts expense is associated with increase in inherent risk and emerging risk reliability assessments.

Reliability Assessment and Performance Analysis Program

Funding sources and related expenses for the Reliability Assessment and Performance Analysis section of the 2021 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						
2020 Budget & Projection, and 2021 Budget						
Reliability Assessment and Performance Analysis						
	2020 Budget	2020 Projection	Variance 2020 Projection v 2020 Budget Over(Under)	2021 Budget	Variance 2021 Budget v 2020 Budget Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ 3,210,055	\$ 3,210,055	\$ -	\$ 3,212,823	\$ 2,768	
Penalty Sanctions	21,115	21,115	-	101,947	80,833	
Total ERO Funding	\$ 3,231,169	\$ 3,231,169	\$ -	\$ 3,314,770	\$ 83,601	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	-	-	-	-	-	
Total Funding (A)	\$ 3,231,169	\$ 3,231,169	\$ -	\$ 3,314,770	\$ 83,601	
Expenses						
Personnel Expenses						
Salaries	\$ 1,006,128	\$ 1,006,128	\$ -	\$ 1,017,371	\$ 11,243	
Payroll Taxes	64,023	64,023	-	64,068	46	
Benefits	218,787	218,787	-	280,566	61,779	
Retirement Costs	109,418	109,418	-	110,034	616	
Total Personnel Expenses	\$ 1,398,356	\$ 1,398,356	\$ -	\$ 1,472,039	\$ 73,683	
Meeting Expenses						
Meetings & Conference Calls	\$ 22,000	\$ 22,000	\$ -	\$ 17,600	\$ (4,400)	
Travel	216,200	216,200	-	172,960	(43,240)	
Total Meeting Expenses	\$ 238,200	\$ 238,200	\$ -	\$ 190,560	\$ (47,640)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 533,000	\$ 533,000	\$ -	\$ 647,000	\$ 114,000	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	3,000	3,000	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Total Operating Expenses, excluding Depreciation	\$ 533,000	\$ 533,000	\$ -	\$ 650,000	\$ 117,000	
Total Direct Expenses	\$ 2,169,556	\$ 2,169,556	\$ -	\$ 2,312,599	\$ 143,043	
Indirect Expenses	\$ 1,031,701	\$ 1,031,701	\$ -	\$ 986,305	\$ (45,396)	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 3,201,257	\$ 3,201,257	\$ -	\$ 3,298,904	\$ 97,647	
Change in Net Assets (=A-B)	\$ 29,913	\$ 29,913	\$ -	\$ 15,866	\$ (14,047)	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 29,913	\$ 29,913	\$ -	\$ 15,866	\$ (14,047)	
TOTAL BUDGET (=B+C)	\$ 3,231,169	\$ 3,231,169	\$ -	\$ 3,314,770	\$ 83,601	
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)			
	2020 Budget	2021 Budget	Increase (Decrease)
Total FTEs	0.10	0.10	0.00
Direct Expenses	\$219,862	\$223,835	\$3,973
Indirect Expenses	\$19,000	\$18,131	(\$869)
Other Non-Operating Expenses	\$0	\$0	\$0
Inc(Dec) in Fixed Assets	\$551	\$292	(\$259)
Total Funding Requirement	\$239,412	\$242,257	\$2,845

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 of training seminars, held twice yearly, at which:

- potential operational problems for the coming season are discussed,
- physical layouts and electrical characteristics of the NPCC and PJM Areas are discussed,
- application of NPCC Directory and NERC Standard requirements pertinent to operation are discussed,
- major industry issues that are important for system operators are discussed,
- significant disturbances are reviewed for lessons learned; and
- table-top drills and communication and coordination exercises are conducted.

The seminars promote camaraderie and better communication among system operators from the NPCC and PJM Reliability Coordinator (RC) Areas and the Nova Scotia Balancing Authority (BA) area, as well as Newfoundland and Labrador Hydro (NLH) Energy Control Center operations. PJM RC has significant interaction with the NPCC RCs and system operators from PJM have been regular participants at past seminars. With the completion of the DC links connecting Newfoundland and Labrador Hydro to the Quebec and Eastern Interconnections, NLH has been increasing their engagement with NPCC, including active participation in the system operator seminars. Examples of specific topics addressed at recent seminars include: 1) additions and impacts to operations of renewable resources, 2) the development of conditions and violations related to major system Blackouts, 3) human performance related to system operations, 4) cybersecurity threats and system operator concerns, 5) system restoration approaches and tie-ins to neighboring systems and 6) application of NPCC Simultaneous Activation of Reserve. Usually, control center visits are included as part of the seminar activities.

This Program also provides for:

- sharing of RC/BA existing training program and system simulator area content;
- verification and sharing of training methods;
- evaluation of training and simulator aids as they become available;
- opportunities to consolidate training among the NPCC RCs and BAs, which includes opportunities to share training material and training sessions; and
- exchange of information on internal methods of system operator training.

2021 Key Long-Term Focus Areas

ERO Enterprise Long-Term Strategy Focus Area activities for 2021 include:

- Build appropriate outreach, training, and education to registered entities through NERC and the Regional Entities to reduce the incidence of known risks to reliability;
- Nurture relationships with key industry trade associations, as well as those associations representing technology, affiliated sectors, and end users to understand context and leverage their experience and reach;
- Collaborate effectively with other non-profit organizations that share elements of the ERO Enterprise’s reliability and security mission, and seek out and work with representatives of academia, other critical infrastructures, and international experts to broaden the ERO Enterprise’s collective knowledge and awareness of current and unknown risks and strategies to address them;

2021 NERC Activities

NPCC will provide the Regional perspective and support with appropriate NPCC Training and Education staff participation on selective NERC Committees, including:

- ERO Enterprise and NATF Electric Power Human Performance Improvement Symposium (EPHPIS) Organizing Committee
- Reliability Training Working Group (RTWG)

Activities below further support the NPCC 2020-23 Strategic Plan through targeted discussion of operational impacts and considerations in the specific Focus Areas, including:

- Critical infrastructure interdependencies
- DERs
- Identifying and collaboratively advancing better practices to mitigation of security threats

Funding Drivers and Reliability Benefits

- System operators participating in the Seminars: 1) share various approaches to addressing operational problems and learn about the characteristics of neighboring systems; 2) gain exposure to NPCC issues and current industry operational topics; 3) review recent NPCC and PJM major external disturbances; 4) review key operational related content in NPCC Directories and NERC Standards; and 5) participate in hands-on “table top exercises” pertaining to system operational practices. PJM system operators and trainers are also invited to participate and normally attend and participate in these seminars;

- Seminar attendees also receive Continuing Education Hours (CEHs) (normally 3 CEHs) and operator trainers from each RC/BA area can utilize the seminar content by including it in their internal training programs to provide CEHs to all system operators; The seminars help to improve system operational coordination through better contact among system operators at other Reliability Coordinator Areas.
- Continually review and revise the curriculum of the training seminars to better emphasize NERC Standard requirements related to system operation, NPCC wide-area operations and Regionally-specific criteria and procedures.
- Enhance system operator awareness and knowledge of the standards, criteria and procedures that are applied in real time operation;
- Provide more sharing of 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 and COM standards;
- NPCC will conduct two Standards and Compliance workshops in 2020, 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).

2021 Key Assumptions

In addition to the Spring and Fall Standards and Compliance workshops, NPCC regularly conducts System Operators seminars, specifically designed with table top exercises, targeted breakout classroom sessions and presentations on current industry related activities, to provide for the most efficient exchange of information between the NPCC and Areas' training staff, 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 and Areas' training staff members. To supplement these seminars and workshops, NPCC may develop webinars that will focus on specific topics pertinent to developments related to system operations, compliance program implementation, standards development or technical issues.

The System Operator seminars involve system operators' participants from the NPCC RC/BA Areas and PJM, as well as Newfoundland and Labrador Hydro, and are held in early May and early November.

Additionally, NPCC staff participates on the ERO Enterprise and NATF Electric Power Human Performance Improvement Symposium (EPHPIS) Organizing Committee, members of which include the Regions and NERC, along with the NATF and is charged with executing the administrative framework for organizing, planning and implementing the event is collaborative in nature. EPHPIS is a continent-wide collaboration between the ERO Enterprise and the North American Transmission Forum (NATF) focused on human performance improvement for the bulk power system (BPS).

Training, Education and Operator Certification 2021 Goals and Deliverables

- Prepare and conduct the 2021 Spring and Fall NPCC System Operator Seminars.
- Continue collaboration and sharing of the intended RC/BA approaches, experiences and materials to task identification and training development

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- As needed, enhance the 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 Standards PER-003-1 “*Operating Personnel Credentials*” and PER-005-2 “*Operations Personnel Training*.”
 - Develop on-line operational training webinars that focus on specific topics pertinent to compliance program implementation, standards development or technical issues.
 - Conduct Spring and Fall 2021 Standards and Compliance workshops addressing the development of NERC and Regional Reliability Standards and the implementation of the Compliance Monitoring and Enforcement Program (CMEP).
 - Support EPHPIS Organization Committee activities and execution of the HP symposium.
 - Participate on the Reliability Training WG and collaborate with the NPCC CO-2 Operations Training WG and other NPCC Members’ training personnel on the activities related to the reliable operation of the BES.

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 2% of its resources on this activity.

Resource Requirements

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be remotely attended via teleconference and webinar in 2021.

Training, Education, and Operator Certification Program

Funding sources and related expenses for the training, education, and operator certification section of the 2021 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						
2020 Budget & Projection, and 2021 Budget						
Training, Education, and Operator Certification						
	2020	2020	Variance	2021	Variance	
	Budget	Projection	2020 Projection v 2020 Budget Over(Under)	Budget	2021 Budget v 2020 Budget Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ 171,524	\$ 171,524	\$ -	\$ 172,883	\$ 1,360	
Penalty Sanctions	389	389	-	1,874	1,485	
Total ERO Funding	\$ 171,912	\$ 171,912	\$ -	\$ 174,757	\$ 2,845	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	67,500	33,750	(33,750)	67,500	-	
Interest & Investment Income	-	-	-	-	-	
Total Funding (A)	\$ 239,412	\$ 205,662	\$ (33,750)	\$ 242,257	\$ 2,845	
Expenses						
Personnel Expenses						
Salaries	\$ 11,793	\$ 11,793	\$ -	\$ 18,352	\$ 6,559	
Payroll Taxes	939	939	-	1,068	129	
Benefits	5,652	5,652	-	6,091	440	
Retirement Costs	1,478	1,478	-	2,324	846	
Total Personnel Expenses	\$ 19,862	\$ 19,862	\$ -	\$ 27,835	\$ 7,973	
Meeting Expenses						
Meetings & Conference Calls	\$ 185,000	\$ 120,000	\$ (65,000)	\$ 184,000	\$ (1,000)	
Travel	15,000	15,000	-	12,000	(3,000)	
Total Meeting Expenses	\$ 200,000	\$ 135,000	\$ (65,000)	\$ 196,000	\$ (4,000)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	-	-	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Total Operating Expenses, excluding Depreciation	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Direct Expenses	\$ 219,862	\$ 219,862	\$ (65,000)	\$ 223,835	\$ 3,973	
Indirect Expenses	\$ 19,000	\$ 19,000	\$ -	\$ 18,131	\$ (869)	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 238,862	\$ 238,862	\$ (65,000)	\$ 241,965	\$ 3,104	
Change in Net Assets (=A-B)	\$ 551	\$ (33,199)	\$ 31,250	\$ 292	\$ (259)	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 551	\$ 551	\$ -	\$ 292	\$ (259)	
TOTAL BUDGET (=B+C)	\$ 239,412	\$ 239,412	\$ (65,000)	\$ 242,257	\$ 2,845	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ 0	\$ (33,750)	\$ 31,250	\$ (0)	\$ (0)	

Situation Awareness and Infrastructure Security Program

Situation Awareness and Infrastructure Security Program Resources			
(in whole dollars)			
	2020 Budget	2021 Budget	Increase (Decrease)
Total FTEs	5.40	5.40	0.00
Direct Expenses	\$1,450,129	\$1,411,680	(\$38,450)
Indirect Expenses	\$1,026,001	\$979,052	(\$46,948)
Other Non-Operating Expenses	\$0	\$0	\$0
Fixed Asset Additions	\$29,747	\$15,749	(\$13,998)
Total Funding Requirement	\$2,505,877	\$2,406,482	(\$99,396)

Program Scope and Functional Description

The Situation Awareness and Infrastructure Security (SAIS) 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 an event does occur, it is critical to provide a forum for active coordination of reliability and operation among the NPCC Reliability Coordinator areas and neighboring NERC Regions and to use an event as a learning opportunity to enhance the reliability of the interconnected bulk power system through the lessons learned, which can be gleaned from such an event.

NPCC's Event Analysis Program resides within the SAIS program area and supports the overall goal of promoting the reliability of the bulk power system in Northeastern North America and the entire North American grid. NERC, Regions and the industry analyze events, identify the lessons to be learned, and conduct a formal cause code analysis. The Event Analysis Program recognizes that many events, which occur on the bulk power system beyond those identified through NERC Reliability Standard EOP-004, "Event Reporting," can have varying levels of significance to the electric system. By implementing a "bottom-up" approach to an event review within the framework of the NERC Event Analysis Program consistency, comparability, flexibility, quality and timeliness in the event analysis process will be promoted by NPCC, the registered entities and NERC in a collaborative initiative, resulting in industry lessons learned and trends identify and prioritizing possible reliability concerns.

2021 Key Focus Areas

NPCC SAIS activities will be in support of the ERO Enterprise Long-Term Strategy Focus Areas for 2021, including:

- Use the full suite of tools, activities and resources for risk mitigation to provide guidance to industry as to how to mitigate emerging risks, evaluating the effectiveness of such approaches;
- Build/enhance appropriate outreach, training, and education to registered entities to reduce the incidence of known risks to reliability;

- Develop measures of BPS and cyber resilience, and identify processes and approaches to enhance resilience through NERC’s reliability and security toolkit as well as industry action. Work in collaboration with the forums and Department of Energy (DOE);
- Strengthen the analysis of cyber impacts on the BPS and mitigate impacts of cyberattacks. Enhance industry’s ability to develop approaches to pre-position the system when under attack and explore recovery strategies;
- Leverage information and cross-sector collaboration with other critical infrastructures to identify leading indicators of emerging risks and the potential harm of currently unknown risks, and prioritize and communicate these to industry for awareness and mitigation;
- Build appropriate outreach, training, and education to registered entities through NERC and the Regional Entities to reduce the incidence of known risks to reliability;
- Ensure the E-ISAC Long-Term Strategic Plan is executed such that the E-ISAC is viewed by industry as meeting its needs as one of its key trusted sources of security information
- Collaborate with other sectors’ security infrastructure where appropriate (e.g., the Financial Systemic Analysis and Resilience Center and the Downstream Natural Gas Information Sharing and Analysis Center) to facilitate cross-sector information sharing and threat analysis;
- Strengthen proactive outreach, communications, relationships and intelligence sharing with key regulatory, legislative, and policy bodies as well as government agencies across North America (US and Canada).
- Nurture relationships with key industry trade associations, as well as those associations representing technology, affiliated sectors, and end users to understand context and leverage their experience and reach;
- Collaborate effectively with other non-profit organizations, other critical infrastructure experts that share elements of the ERO Enterprise’s reliability and security mission, and to broaden the ERO Enterprise’s collective knowledge and awareness of current and unknown risks and strategies to address them; and
- Leveraging the Regional Entities’ specialized and localized point of view, strengthen and expand outreach, coordination, and collaboration with state energy regulators and related offices to address risks to reliability stemming from the relocation of resources and interdependency between the operations of distribution and the BPS;

2021 NERC Activities

NPCC will provide the Regional perspective and support with appropriate NPCC SAIS and EA staff participation on selective NERC Committees, including:

- Event Analysis Subcommittee (EAS)
- Event Analysis Ad Hoc Team
- Situational Awareness Ad Hoc Team
- NERC Physical Security Advisory Group (PSAG)
- Grid Exercise Working Group (GridEx WG)

Activities below further support the NPCC 2020-23 Strategic Plan through targeted discussion of operational impacts and considerations in the specific Focus Areas, including targeted activities, such as:

- Enhancing System Resilience and Assuring Energy Sufficiency
 - Gathering and trending analytical data related to system resilience and identifying better practice elements for BPS reliability

- Developing resilience metrics to better quantify the reliability enhancements of prevent operations in a more secure state, reductions in the system degradation profile, and increasing the speed of recovery
- Assessing gas-electric interdependencies, as well as other common mode failure and single points of disruption scenarios involving communications, water, and other interdependent critical infrastructure sectors
- Addressing Cyber and Physical Threats
 - Developing Regional concurrence on appropriate levels of cyber resilience, the adequacy of security controls, and methodologies to simulate cyber impacts on BPS reliability
 - Expanding Regional support for and interaction with the E-ISAC and enhancing actionable information sharing within Northeastern North America
 - Identifying and collaboratively advancing better practice approaches to mitigating cyber and physical security threats

2021 Key Assumptions

- The monitoring of Lessons Learned will continue to be a major focus of NERC and NPCC in 2021, including:
 - continued reporting, for applicable qualifying events in the voluntary Event Analysis Program, of more detailed information on station equipment failure, per recommendation of the AC Substation Equipment Task Force, to solicit and collect this data, to aid in future analysis of station equipment failures and to identify trends that may be a threat to the reliability of the Bulk Electric System,
 - Introduction of a new EAP category, implemented to capture the effect of “non-consequential” loss of inverter type resources and similarly DC ties between two separate asynchronous systems,
 - continued utilization of a revised Category 1h - EMS/Loss of monitoring or control at a Control Center events Brief Report template and Addendum, developed with the input of the EMS Working Group to ensure continuation of analysis of such events to improve information collection related to such events and associated analysis, taking into account the modifications to the mandatory EOP-004-4 reporting requirements thresholds.
- TFIST support of the following activities:
 - Supply Chain – new version of the Standard, more guidelines by RSTC’s Supply Chain WG and industry (like NATF)
 - Virtualization – updates to several CIP Standards
 - IEC 61850 – addressing a gap in cyber security because it is excluded from CIP
 - CIP-012 implementation
 - CIP-008 – new version which requires notifying E-ISAC and United States National Cybersecurity and Communications Integration Center (NCCIC)
 - IST-4 WG – patch management of relays
 - Grid Ex VI (2021)
 - BES Cyber Systems Information (BCSI) - CIP updates approval and entities’ implementation

- Resource allocation to this program area supports expanded Events Analysis activities; coordination with NERC’s evolving E-ISAC capabilities; and physical and cyber security outreach efforts, including support of NERC’s Security Initiative and cross-sector collaboration activities.
- Support DOE-led effort on the development of the North American Energy Resilience Model (NAERM) in collaboration with the National Labs, the industry and the ERO Enterprise
- Further activities in the cross-sector interdependencies, including natural gas and communications

Situation Awareness 2021 Goals and Deliverables

- NPCC will provide the Regional perspective through NPCC staff support of the NERC Reliability and Security Technical Committee and participation on the key related NERC Subcommittees, Task Forces and Working Groups, including the Event Analysis Subcommittee, the ERO – Event Analysis and Situational Awareness Group.
 - Work directly with applicable NPCC Task Forces and Working Groups to provide an in-depth assessment of Lessons Learned unique to the NPCC Members and NPCC Criteria.
 - Situation Awareness:
 - Monitor the operational status of the bulk power system and coordinate normal and pre-emergency communication, awareness and assistance in addition to the same during an emergency among the Reliability Coordinators within 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.
 - Prepare daily reports and conduct daily and weekly conference calls to serve as a complement to the NPCC Emergency Preparedness Conference Call. The participants of the calls are the Reliability Coordinators within NPCC and its neighboring RCs, the Midcontinent ISO and PJM.
 - Monthly test of the satellite telephone network, to ensure the capability for continued voice communications among NPCC and its Reliability Coordinators.
 - Monthly test of the NPCC Emergency Preparedness Communications Procedure, as required
 - Coordination and communication with the NERC Bulk Power System Awareness group in preparation for and during ongoing significant events in the NPCC’s footprint;
 - Participation in the ERO Enterprise-wide Situation Awareness activities, including NERC SA Oversight Plan specified goals and deliverables in support of the activities to identify, prioritize, and assure effective and efficient mitigation of risk to the reliability and security of the North American Bulk Power System (BPS).
 - Monitor the status of the bulk power system through the NERC Situational Awareness-FERC, NERC, Regions version 3 (SAFNRv3) tool
 - 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 and performance of real-time operating tools ensuring cyber security concerns are addressed.
- Take part in planning activities and distributed play portion of the GridEx VI wide-area exercise, including incorporating and building on Lessons Learned from the GridEx V event and develop new lessons learned.
- Events Analysis:
 - Continue to promote, implement and manage voluntary ERO Event Analysis Process (EAP) and Cause Coding process as part of the ERO Event Analysis Program, including review and analysis of applicable, qualifying events, development of lessons learned and cause coding of events.
 - Promote NPCC’s Event Analysis group’s process for sharing and dissemination of the detailed Event Analysis Report information among industry participants (registered entities).
 - Participation in the ERO Enterprise-wide Events Analysis activities, including NERC EA Oversight Plan specified goals and deliverables in support of the activities to identify, prioritize, and assure effective and efficient mitigation of risk to the reliability and security of the North American Bulk Power System (BPS).
 - Work directly with applicable NPCC Task Forces and Working Groups to provide an in-depth assessment of Lessons Learned unique to the NPCC Members and NPCC Criteria and development of Regional Insights, as applicable.
 - Support ERO Enterprise lessons learned development through participation on the NPCC events lessons learned review teams, as well as lessons learned from other Regions and NERC.

Infrastructure Security Objectives

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

- Providing a forum for NPCC review of proposed and posted documents from the NERC Critical Infrastructure Protection Committee; and,
- 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 physical and cyber security outreach efforts, will supplement infrastructure security focus areas and support the ERO Enterprise contributing activity of “Strengthen relationships and intelligence sharing with key government agencies, such as the DOE as the U.S. electricity sector-specific agency, the Department of Homeland Security (DHS), as well as Natural Resources Canada (NRCan), Canada’s Communications Security Establishment” and “Build appropriate outreach, training, and education to registered entities through NERC and the Regional Entities to reduce the incidence of known risks to reliability” as it pertains to the operational security (both cyber and physical).

NPCC’s Physical Security Working Group – an NPCC group of physical security experts formed to discuss, in a secure environment, emerging threats, trends and new security technologies and strategies utilized by NPCC registered entities for the protection of their facilities in the physical arena. The Working Group is tasked with developing approaches to physical security that will enhance the reliability and resiliency of the BPS and further address any physical security issues that could challenge efficient operation of the BPS, including pertinent items identified in the

biennial RISC report, under Physical and Cyber Security Vulnerabilities. The Group will function as a clearinghouse for intelligence information received from Federal, State and Local partners and will disseminate such information received to NPCC registered entities. In addition, the Working Group shall develop, review, and provide regional input on various industry physical security initiatives, working groups, and task forces, as appropriate.

Infrastructure Security 2020 Goals and Deliverables

- Monitor the reliable implementation of the Cyber Security Standards.
- Monitor the Homeland Security Information Network (HSIN), E- ISAC, NERC Alerts and Canadian Information Sharing and share information with the NPCC CO-8 Working Group, NPCC PSWG and NPCC members' cyber security experts.
- 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.
- Provide support and technical input for TFIST and PSWG related to the Bulk Power System risks as identified by the NERC Reliability Issues Steering Committee; support, discuss and coordinate activities and approaches identified in the recommendations for mitigating security risks.
- Support the NERC Grid Exercise Working Group in GridEx VI planning, simulation and after-action report development portions of the exercise.
- Review infrastructure security & technologies and provide recommendations to enhance physical and cyber security in compliance with NERC guidelines/standards.
- Provide recommendations to enhance physical and cyber security, in compliance with NERC standards, based on assessments of available and emerging infrastructure security technologies, methodologies, and best practices.
- Sponsor periodic workshop presentations to address timely issues and update NPCC Members associated with infrastructure security and technology.
- Provide education, awareness, and support for Cross Sector coordination in Entity agreements and response plans with focus upon Telecommunications, Water and Natural Gas, including monitoring and sharing with the E-ISAC.
- Provide physical and cyber security outreach services to registered entities.
- Support ERO Enterprise Security Initiative and grow coordination and collaboration with the ERO, E-ISAC, other NERC Regions and US and Canadian federal, state and local Authorities.
- Facilitate and provide coordination and technical support and guidance to the NPCC Physical Security Work Group; share and collaborate with other Regions and NERC on good industry practices to enhance security posture.
- Conduct an annual review of cross border emergency telecommunications to verify each Area can communicate with each other.
- Provide a forum for members of NPCC, NPCC Task Forces and Working Group to identify and discuss cyber security issues and practices related to the bulk power system.

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 15% of its resources on this activity.

Resource Requirements

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be remotely attended via teleconference and webinar in 2021.

Situation Awareness and Infrastructure Security Program

Funding sources and related expenses for the situation awareness and infrastructure security section of the 2021 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						
2020 Budget & Projection, and 2021 Budget						
Situation Awareness and Infrastructure Security						
	2020	2020	Variance	2021	Variance	
	Budget	Projection	2020 Projection	Budget	2021 Budget	
			v 2020 Budget		v 2020 Budget	
			Over(Under)		Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ 2,484,879	\$ 2,484,879	\$ -	\$ 2,305,284	\$ (179,596)	
Penalty Sanctions	20,998	20,998	-	101,198	80,200	
Total ERO Funding	\$ 2,505,877	\$ 2,505,877	\$ -	\$ 2,406,482	\$ (99,396)	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	-	-	-	-	-	
Total Funding (A)	\$ 2,505,877	\$ 2,505,877	\$ -	\$ 2,406,482	\$ (99,396)	
Expenses						
Personnel Expenses						
Salaries	\$ 924,110	\$ 884,110	\$ (40,000)	\$ 885,454	\$ (38,656)	
Payroll Taxes	61,713	57,713	(4,000)	60,595	(1,117)	
Benefits	202,020	190,020	(12,000)	233,918	31,898	
Retirement Costs	99,986	93,986	(6,000)	96,873	(3,113)	
Total Personnel Expenses	\$ 1,287,829	\$ 1,225,829	\$ (62,000)	\$ 1,276,840	\$ (10,990)	
Meeting Expenses						
Meetings & Conference Calls	\$ 8,000	\$ 8,000	\$ -	\$ 6,400	\$ (1,600)	
Travel	94,300	94,300	-	75,440	(18,860)	
Total Meeting Expenses	\$ 102,300	\$ 102,300	\$ -	\$ 81,840	\$ (20,460)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 60,000	\$ 60,000	\$ -	\$ 50,000	\$ (10,000)	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	3,000	3,000	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Total Operating Expenses, excluding Depreciation	\$ 60,000	\$ 60,000	\$ -	\$ 53,000	\$ (7,000)	
Total Direct Expenses	\$ 1,450,129	\$ 1,388,129	\$ (62,000)	\$ 1,411,680	\$ (38,450)	
Indirect Expenses	\$ 1,026,001	\$ 1,026,001	\$ -	\$ 979,052	\$ (46,948)	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 2,476,130	\$ 2,414,130	\$ (62,000)	\$ 2,390,732	\$ (85,398)	
Change in Net Assets (=A-B)	\$ 29,747	\$ 91,747	\$ 62,000	\$ 15,749	\$ (13,998)	
Total Funding (A) Requirement	\$ 2,446,383	\$ 2,446,383	\$ (62,000)	\$ 2,374,983	\$ (71,400)	
Fixed Asset Additions, excluding Right of Use Assets (C)	29,747	29,747	-	15,749	(13,998)	
TOTAL BUDGET (=B+C)	2,505,877	2,443,877	(62,000)	2,406,482	(99,396)	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ 0	\$ 62,000	\$ 62,000	\$ (0)	\$ 0	

Administrative Services

Administrative Services Program Resources						
(in whole dollars)						
	Direct Expenses			FTEs		
	2020 Budget	2021 Budget	Increase (Decrease)	2020 Budget	2021 Budget	Increase (Decrease)
Technical Committees and Members Forum	\$75,793	\$35,729	(\$40,064)	0.50	0.10	-0.40
General and Administrative ²	\$3,874,453	\$3,874,497	\$44	2.73	2.73	0.00
Legal and Regulatory	\$761,007	\$748,924	(\$12,084)	2.00	2.00	0.00
Information Technology	\$1,144,119	\$1,341,144	\$197,024	2.00	2.55	0.55
Human Resources	\$158,731	\$67,066	(\$91,666)	1.00	0.50	-0.50
Finance and Accounting	\$703,291	\$735,648	\$32,357	2.00	2.00	0.00
Total Administrative Services¹	\$6,717,395	\$6,803,007	\$85,612	10.23	9.88	-0.35

¹ NPCC's 2021 Administrative Services Direct Expenses and Fixed Assets total \$6,803,007 of which \$387,995 is allocated to NPCC's Criteria Services division, which is a non-statutory function. As a result of the allocation to the Criteria Services division, the Administrative Expenditures included in the 2021 statutory budget are \$6,415,012 which is an increase of \$107,067 from the 2020 budget of \$6,307,945.

² Succession implementation costs of \$477,520 included in General and Administrative Direct Expenses will be funded from Board approved Business Continuity Reserves and will not impact assessments.

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 2021 business plan are shown in the table below. Explanations of variances by expense category are included within the Supplemental Tables found in Section B.

Statement of Activities and Capital Expenditures 2020 Budget & Projection, and 2021 Budget						
ADMINISTRATIVE SERVICES						
	2020 Budget	2020 Projection	Variance 2020 Projection v 2020 Budget Over(Under)	2021 Budget	Variance 2021 Budget v 2020 Budget Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ (625,856)	\$ (625,856)	\$ -	\$ 327,728	\$ 953,584	
Penalty Sanctions	-	-	-	-	-	
Total ERO Funding	\$ (625,856)	\$ (625,856)	\$ -	\$ 327,728	\$ 953,584	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	55,800	55,800	-	56,264	464	
Total Funding (A)	\$ (570,056)	\$ (570,056)	\$ -	\$ 383,992	\$ 954,048	
Expenses						
Personnel Expenses						
Salaries	\$ 2,433,049	\$ 2,433,049	\$ -	\$ 2,642,472	\$ 209,423	
Payroll Taxes	126,595	126,595	-	123,675	(2,920)	
Benefits	674,649	674,649	-	554,948	(119,700)	
Retirement Costs	313,571	313,571	-	328,620	15,049	
Total Personnel Expenses	\$ 3,547,864	\$ 3,547,864	\$ -	\$ 3,649,716	\$ 101,852	
Meeting Expenses						
Meetings & Conference Calls	\$ 162,750	\$ 162,750	\$ -	\$ 110,400	\$ (52,350)	
Travel	129,100	129,100	-	125,680	(3,420)	
Total Meeting Expenses	\$ 291,850	\$ 291,850	\$ -	\$ 236,080	\$ (55,770)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 361,000	\$ 361,000	\$ -	\$ 85,650	\$ (275,350)	
Office Rent	832,700	832,700	-	870,141	37,441	
Office Costs	685,981	685,981	-	811,420	125,439	
Professional Services	947,000	947,000	-	1,005,000	58,000	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	51,000	51,000	-	51,000	-	
Total Operating Expenses, excluding Depreciation	\$ 2,877,681	\$ 2,877,681	\$ -	\$ 2,823,211	\$ (54,470)	
Total Direct Expenses	\$ 6,717,395	\$ 6,717,395	\$ -	\$ 6,709,007	\$ (8,388)	
Indirect Expenses	\$ (6,272,855)	\$ (6,272,855)	\$ -	\$ (6,231,487)	\$ 41,368	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 444,540	\$ 444,540	\$ -	\$ 477,520	\$ 32,980	
Change in Net Assets (=A-B)	\$ (1,014,596)	\$ (1,014,596)	\$ -	\$ (93,528)	\$ 921,068	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ -	\$ -	\$ -	\$ -	\$ -	
TOTAL BUDGET (=B+C)	\$ 444,540	\$ 444,540	\$ -	\$ 477,520	\$ 32,980	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (1,014,596)	\$ (1,014,596)	\$ -	\$ (93,528)	\$ 921,068	

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 subject matter 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.

2021 Key Assumptions

- NPCC's standing committee and subgroup structure for effective stakeholder involvement will continue in 2021.
- 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 2021.
- NPCC will continue to invest in technology and innovation to allow efficient collaboration on technical issues related to reliability.

Technical Committees and Member Forums 2021 Goals and Deliverables

- The 2021 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; and,
- 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 2021 NPCC Reliability Assessment; and,
 - Participation in ERO Regional Communication Group 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

- The Meeting Coordinator position, which was partially allocated to this program area, was eliminated in 2020 based on changes in meeting formats from in-person to remote attendance due to the COVID-19 pandemic. One FTE has been partially reallocated to this program area.

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be remotely attended via teleconference and webinar in 2021.

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

- During 2020 an executive search will be conducted in order to identify a successor CEO to transition into that role by vote of the Membership at its Annual Meeting in early December to become effective January 1, 2021. The incumbent President and CEO has identified a planned retirement at the end of first quarter of 2021. The expectation is that the identified successor will be retained effective January 1, 2021 coincident with the assumption of the Chief Executive Office. Costs related to the executive search recruiting efforts and succession plan implementation will be funded from the existing Business Continuity Reserve, identified by the NPCC Board of Directors in 2017 for release during 2020 and within 2021, as approved by the Board. Therefore, 2021 assessments will not be impacted by these President and CEO succession-related expenses.

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be remotely attended via teleconference and webinar in 2021.

Legal and Regulatory

Program Scope and Functional Description

NPCC's professional legal services provide counsel to the President and CEO, Board of Directors, Senior Vice President and COO, Treasurer, General Counsel and Secretary and staff on a wide range of legal, compliance and regulatory matters including legislation, corporate law, code of conduct, member services, privacy, confidentiality, governance, employment law, tax matters, contracts and other areas affecting NPCC. To ensure and maintain independence and objectivity consistent with ERO Enterprise value drivers, NPCC's in-house professional services evaluate internal controls and corporate, operational, strategic and reputational risk, and participate in risk identification, evaluation and mitigation activities. In-house professional legal services provide advice and advance significant corporate policy and strategic planning initiatives, assisting in the development of NPCC's strategic focus areas and their alignment with ERO Enterprise approaches. In addition, in-house professional legal services provide support to other program areas on matters arising in connection with the performance of NPCC's delegated functions to achieve organizational excellence consistent with NPCC's values. The Legal and Regulatory program area is also responsible for activities associated with the Corporate Secretary function such as preparing Board materials and minutes, facilitating and conducting Board training, and ensuring that meetings of the Board of Directors and Committees adhere to the Bylaws and other relevant governing documents. Outside counsel, as necessary, reviews complex matters for legal sufficiency and provides independent legal advice and guidance on certain employment and Human Resource related matters.

Resource Requirements

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be remotely attended via teleconference and webinar in 2021.

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 and all applicable Critical Electric Infrastructure Information protection and Confidentiality requirements. 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 and leveraging ERO solutions which have been approved by the ERO Executive Committee (ERO EC), 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 2021 Business Plan and Budget assumes agreed upon ERO Enterprise applications will be available and includes only NPCC costs for Region specific support needs.

2021 Key Assumptions

- Continue to maintain the compliance portal through collaboration with other Regional Entities and NERC (CUG), while transitioning to the ERO Enterprise CMEP data application (Align).
- 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.

2021 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:

- Implementation of a security control framework.
- Work with the ERO Enterprise to collaborate and implement a data loss prevention program.
- Continue to expand the utilization of the document management system throughout the company.

-
- Constantly review and evaluate security measures taken to reduce breach of security risks.
 - Ensure all information systems are functional and secure, and that all applications running on those systems meet business requirements for performance, availability, and security.
 - Provide outreach and education to NPCC members in IT best practices.
 - Continually improve Disaster Recovery and Business Continuity policies and practices to ensure continuity and reliability of IT and business related services.
 - Upgrade various hardware and equipment.

Resource Requirements

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be remotely attended via teleconference and webinar in 2021.

Fixed Assets

- Capital expenditures planned for 2021 include the implementation of a security controls framework and data loss prevention strategy, as well as continuing enhancement of the document management system and equipment upgrades.

Human Resources

Program Scope and Functional Description

NPCC has assembled an exceptional team of highly qualified employees to carry out its activities. 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; knowledge transfer, training and development; and employee time tracking.

Resource Requirements

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be remotely attended via teleconference and webinar in 2021.

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 consistently identified this system as a best practice.

2021 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

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be remotely attended via teleconference and webinar in 2021.

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 2019 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 2019 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 ISOs/BAAs within NPCC as the designees for the load serving entities (LSEs) 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, any sub-Regional reliability assessment costs in response to U.S. only regulatory initiatives will be considered for allocation to U.S. only ISOs/BAAs consistent with NERC Rules of Procedure section 1102. Additionally, the compliance responsibilities and authorities within the U.S., and the specific compliance responsibilities within each of the Canadian provinces within NPCC, and 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 net energy for load (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 U.S. only reliability assessment and 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 XX% 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 XX% 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 XX% 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 BAA's total average percentage of enforcement activities. The portion allocated to the U.S. BAA's 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.

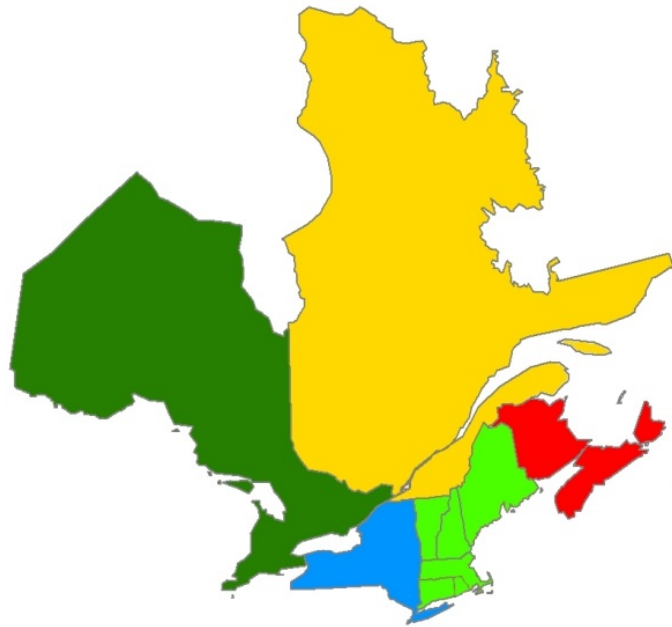
Any penalty monies received from NPCC registered entities within the U.S. by June 30th of the year preceding the business plan and budget year are then allocated among the NPCC program areas based on their FTE ratio and between the U.S. BAAs based on their relative NELs, and then added to the total compliance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

The CORC actual vs budget variance from the most recent year for which audited financials are available is broken out from the rest of the Adjustment to Cash Reserve and assigned to the CORC program allocation of costs. Within Québec these costs are funded directly by the regulator, therefore, the assignment of program area variances needs to respect those specific circumstances.

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.

		Table to be Inserted		

Section B — Supplemental Financial Information 2021 Business Plan and Budget



Section B – Supplemental Financial Information

Reserve Balance

Table B-1 Reserve Balance

Working Capital and Operating Reserve Analysis 2020-2021				
REGIONAL ENTITY DIVISION				
	Total Reserve	Operating Reserve	Working Capital	Business Continuity
Beginning Total Reserve, December 31, 2019	5,623,649	3,300,234	1,383,415	940,000
Plus: 2020 ERO Funding (from LSEs or designees)	15,338,737	15,338,737		
Plus: 2020 Other funding sources	89,550	89,550		
Less: 2020 Projected expenses & capital expenditures	(16,287,647)	(15,843,107)		(444,540)
Projected Total Reserve, December 31, 2020	4,764,288	2,885,413	1,383,415	495,460
Desired Total Reserve, December 31, 2021	4,205,988	2,818,049 ¹	1,369,999 ²	17,940 ³
Less: Projected Total Reserve, December 31, 2020	(4,764,288)	(2,885,413)	(1,383,415)	(495,460)
Increase(decrease) in assessments to achieve desired Total Reserve	(558,301)	(67,365)	(13,416)	(477,520)
2021 Expenses and Capital Expenditures	16,440,648			
Less: Penalty Sanctions ⁴	(604,000)			
Less: Other Funding Sources	(123,764)			
Less: Release of Business Continuity Reserve Funds ³	(477,520)			
Adjustment to Working Capital to achieve desired Total Reserve balance ²	(13,416)			
Adjustment to Operating Reserve to achieve desired Total Reserve balance ¹	(67,365)			
2021 Assessment	15,154,584			

¹ Operating Reserve within a range from 8.33% to 25.00% of Budget. \$2,818,049 represents 17.14% of the 2021 budget of \$16,440,648

² Working Capital equal to 8.33% of Budget. \$1,369,999 represents 8.33% of the 2021 budget of \$16,440,648

³ Business Continuity Reserve (BCR) established in 2017 as approved by the NPCC Board of Directors to fund Succession Planning related expenses.

⁴ Represents collections July 1, 2019 to June 30, 2020.

Explanation of Changes in Reserve Policy from Prior Year

There was no change to the existing Working Capital and Operating Reserve Policy. A separate Business Continuity Reserve (BCR) in the amount of \$1,000,000 (allocated between the Regional Entity and Criteria Services divisions) was established in 2017 as approved by the NPCC Board of Directors, upon recommendation by the Management Development and Compensation Committee and endorsement by the Finance and Audit Committee, to be drawn upon as subsequently brought before the Board of Directors for approval of release of funds in association with President & CEO succession related activities associated with the planned or a sudden retirement, as well as other sudden changing workforce staffing requirements which could be brought about by coincident multiple staff retirements.

Breakdown by Statement of Activity Sections

The following detailed schedules are in support of the Regional Entity division Statement of Activities on page 14 of the 2021 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, 2020 are to be used to offset assessments in the 2021 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, 2019 through June 30, 2020 are listed below. Penalty monies received from July 1, 2020 through June 30, 2021 will be used to offset U.S. load serving entity designee assessments in the 2022 Budget.

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, 2020	Date Received	Amount Received
	9/16/2019	\$ 50,000.00
	9/10/2019	\$ 20,000.00
	12/24/2019	\$ 84,000.00
	1/17/2020	\$ 450,000.00
Total Penalties Received		\$ 604,000.00

Table B-3 Supplemental Funding

Outside Funding Breakdown By Program (excluding ERO Assessments & Penalty Sanctions)	Budget 2020	Projection 2020	Budget 2021	Variance 2021 Budget v 2020 Budget
Reliability Standards				
Total	\$ -	\$ -	\$ -	\$ -
Compliance Monitoring, Enforcement & Org. Registration				
	\$ -	\$ -	\$ -	\$ -
	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -
Reliability Assessment and Performance Analysis				
	\$ -	\$ -	\$ -	\$ -
	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -
Training and Education				
Workshops	\$ 67,500	\$ 33,750	\$ 67,500	\$ -
Total	\$ 67,500	\$ 33,750	\$ 67,500	\$ -
Situation Awareness and Infrastructure Security				
	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -
Technical Committees and Member Forums				
	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -
Administrative Services Programs				
Interest & Investment Income	\$ 55,800	\$ 55,800	\$ 56,264	\$ 464
Total	\$ 55,800	\$ 55,800	\$ 56,264	\$ 464
Total Outside Funding	\$ 123,300	\$ 89,550	\$ 123,764	\$ 464

Explanation of Significant Variances

- NPCC Spring Workshop was held via webinar due to the COVID-19 pandemic. NPCC plans to hold two in-person workshops in 2021.
- NPCC estimates interest & investment income of \$56,328 in 2021 from investment of reserves in a 100% U.S. Treasury Securities money market fund, which will offset 2021 assessments.

Table B-4 Personnel Expenses

Personnel Expenses	Budget 2020	Projection 2020	Budget 2021	Variance 2021 Budget v 2020 Budget	Variance %
Salaries					
Salary	\$ 7,664,262	\$ 7,664,262	\$ 7,794,119	\$ 129,857	1.7%
Employment Agency Fees	\$ 16,000	\$ 16,000	\$ 170,000	\$ 154,000	962.5%
Temporary Office Services	\$ 24,000	\$ 24,000	\$ 18,000	\$ (6,000)	-25.0%
Total Salaries	\$ 7,704,262	\$ 7,704,262	\$ 7,982,119	\$ 277,857	3.6%
Total Payroll Taxes	\$ 479,019	\$ 479,019	\$ 485,768	\$ 6,748	1.4%
Benefits					
Education Reimbursement	\$ 27,500	\$ 27,500	\$ 16,000	\$ (11,500)	-41.8%
Training and Seminars	\$ 83,580	\$ 83,580	\$ 80,614	\$ (2,966)	-3.5%
Medical Insurance	\$ 1,168,854	\$ 1,168,854	\$ 1,293,060	\$ 124,206	10.6%
Life-LTD-STD Insurance	\$ 110,889	\$ 110,889	\$ 109,106	\$ (1,783)	-1.6%
Worker's Compensation	\$ 32,000	\$ 32,000	\$ 27,400	\$ (4,600)	-14.4%
Vacation	\$ 504,062	\$ 504,062	\$ 495,063	\$ (8,998)	-1.8%
Relocation	\$ -	\$ -	\$ -	\$ -	-
Total Benefits	\$ 1,926,885	\$ 1,926,885	\$ 2,021,243	\$ 94,359	4.9%
Retirement					
Pension Contribution	\$ -	\$ -	\$ -	\$ -	-
Employee Savings Plan	\$ 770,950	\$ 770,950	\$ 797,832	\$ 26,882	3.5%
Savings Admin	\$ 36,000	\$ 36,000	\$ 36,000	\$ -	0.0%
Deferred Compensation	\$ 76,000	\$ 76,000	\$ 76,000	\$ -	0.0%
Total Retirement	\$ 882,950	\$ 882,950	\$ 909,832	\$ 26,882	3.0%
Total Personnel Costs	\$ 10,993,117	\$ 10,993,117	\$ 11,398,962	\$ 405,846	3.7%
FTEs	41.09	41.09	42.11	1.02	2.5%
Cost per FTE					
Salaries	\$ 187,497	\$ 187,497	\$ 189,554	\$ 2,057	1.1%
Payroll Taxes	\$ 11,658	\$ 11,658	\$ 11,536	\$ (122)	-1.0%
Benefits	\$ 46,894	\$ 46,894	\$ 47,999	\$ 1,105	2.4%
Retirement	\$ 21,488	\$ 21,488	\$ 21,606	\$ 118	0.5%
Total Cost per FTE	\$ 267,538	\$ 267,538	\$ 270,695	\$ 3,157	1.2%

Explanation of Significant Variances

- Increase of one FTE in 2021.
- Staff vacancy rate increased to 6% in 2021 from 0% in 2020.
- Increase in Employment Agency Fees represents recruiting fees to retain experienced engineers as a part of succession planning.
- Personnel expenses include succession planning related costs that will be funded through business continuity reserves and do not impact assessments.
- Medical insurance increase reflects a premium increase of 10%. Additionally, fewer employees are waiving NPCC coverage for that of a prior employer.

Table B-5 Meeting Expense

Meeting Expenses	Budget 2020	Projection 2020	Budget 2021	Variance 2021 Budget v 2020 Budget	Variance %
Meetings	\$ 361,750	\$ 361,750	\$ 325,400	\$ (36,350)	-10.0%
Travel	\$ 845,900	\$ 845,900	\$ 727,920	\$ (117,980)	-13.9%
Conference Calls	\$ 36,000	\$ 36,000	\$ 9,000	\$ (27,000)	-75.0%
Total Meeting Expenses	\$ 1,243,650	\$ 1,243,650	\$ 1,062,320	\$ (181,330)	-14.6%

Explanation of Significant Variances

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be remotely attended via teleconference and webinar in 2021.
- Decrease in conference calls expense is a result of ERO Enterprise contracted rate.

Table B-6 Consultants and Contracts

Consultants	Budget 2020	Projection 2020	Budget 2021	Variance 2021 Budget v 2020 Budget	Variance %
Consultants					
Reliability Standards	\$ -	\$ -	\$ -	\$ -	-
Compliance Enforcement and Organization Registration and Certification	\$ -	\$ -	\$ -	\$ -	-
Reliability Assessment and Performance Analysis	\$ -	\$ -	\$ -	\$ -	-
Training and Education	\$ -	\$ -	\$ -	\$ -	-
Situation Awareness and Infrastructure Security	\$ -	\$ -	\$ -	\$ -	-
Member Forums	\$ -	\$ -	\$ -	\$ -	-
General and Administrative	\$ 279,000	\$ 279,000	\$ -	\$ (279,000)	-100.0%
Legal and Regulatory	\$ -	\$ -	\$ -	\$ -	-
Information Technology	\$ -	\$ -	\$ -	\$ -	-
Human Resources	\$ -	\$ -	\$ -	\$ -	-
Accounting and Finance	\$ -	\$ -	\$ -	\$ -	-
Consultants Total	\$ 279,000	\$ 279,000	\$ -	\$ (279,000)	-100.0%
Contracts	Budget 2020	Projection 2020	Budget 2021	Variance 2021 Budget v 2020 Budget	Variance %
Reliability Standards	\$ 20,000	\$ 20,000	\$ 20,000	\$ -	0.0%
Compliance Enforcement and Organization Registration and Certification	\$ 1,097,150	\$ 1,097,150	\$ 707,150	\$ (390,000)	-35.5%
Reliability Assessment and Performance Analysis	\$ 533,000	\$ 533,000	\$ 647,000	\$ 114,000	21.4%
Training and Education	\$ -	\$ -	\$ -	\$ -	-
Situation Awareness and Infrastructure Security	\$ 60,000	\$ 60,000	\$ 50,000	\$ (10,000)	-16.7%
Member Forums	\$ -	\$ -	\$ -	\$ -	-
General and Administrative	\$ 75,000	\$ 75,000	\$ 80,000	\$ 5,000	6.7%
Legal and Regulatory	\$ -	\$ -	\$ -	\$ -	-
Information Technology	\$ -	\$ -	\$ -	\$ -	-
Human Resources	\$ -	\$ -	\$ -	\$ -	-
Accounting and Finance	\$ 7,000	\$ 7,000	\$ 5,650	\$ (1,350)	-19.3%
Contracts Total	\$ 1,792,150	\$ 1,792,150	\$ 1,509,800	\$ (282,350)	-15.8%
Total Consultants and Contracts	\$ 2,071,150	\$ 2,071,150	\$ 1,509,800	\$ (561,350)	-27.1%

Explanation of Significant Variances

- General and Administrative consulting costs in 2020 are related to an executive search to identify a successor CEO. The search is expected to be completed during 2020.
- Ongoing effort to decrease the use of consultants and contractors when possible. (See program area sections for detail regarding a specific program area.)

Table B-7 Office Rent

Office Rent	Budget 2020	Projection 2020	Budget 2021	Variance 2021 Budget v 2020 Budget	Variance %
Office Rent	\$ 650,000	\$ 650,000	\$ 650,000	\$ -	0.0%
Utilities	\$ 47,000	\$ 47,000	\$ 47,000	\$ -	0.0%
Maintenance	\$ 37,000	\$ 37,000	\$ 45,000	\$ 8,000	21.6%
Security	\$ 2,700	\$ 2,700	\$ 3,141	\$ 441	16.3%
Real Estate Taxes	\$ 96,000	\$ 96,000	\$ 125,000	\$ 29,000	30.2%
Total Office Rent	\$ 832,700	\$ 832,700	\$ 870,141	\$ 37,441	4.5%

Explanation of Significant Variances

- Increases in Maintenance and Real Estate Taxes are based on historical actual expenses.

Table B-8 Office Costs

Office Costs	Budget 2020	Projection 2020	Budget 2021	Variance 2021 Budget v 2020 Budget	Variance %
Telephone	\$ 88,720	\$ 88,720	\$ 88,720	\$ -	0.0%
Internet Expense	\$ 74,340	\$ 74,340	\$ 70,500	\$ (3,840)	-5.2%
Office Supplies	\$ 33,000	\$ 33,000	\$ 28,000	\$ (5,000)	-15.2%
Computer Supplies and Maintenance	\$ 424,921	\$ 424,921	\$ 576,000	\$ 151,079	35.6%
Subscriptions & Publications	\$ 14,000	\$ 14,000	\$ 20,000	\$ 6,000	42.9%
Dues	\$ 3,400	\$ 3,400	\$ 9,000	\$ 5,600	164.7%
Postage	\$ 1,200	\$ 1,200	\$ 1,200	\$ -	0.0%
Express Shipping	\$ 6,000	\$ 6,000	\$ 6,000	\$ -	0.0%
Copying	\$ 26,400	\$ 26,400	\$ 24,000	\$ (2,400)	-9.1%
Reports	\$ 2,000	\$ 2,000	\$ 2,000	\$ -	0.0%
Stationary and Office Forms	\$ 2,000	\$ 2,000	\$ 2,000	\$ -	0.0%
Equipment Repair/Service Contracts	\$ -	\$ -	\$ -	\$ -	-
Bank Charges	\$ 10,000	\$ 10,000	\$ 10,000	\$ -	0.0%
Sales and Use Tax	\$ -	\$ -	\$ -	\$ -	-
Merchant Credit Card Fees	\$ -	\$ -	\$ -	\$ -	-
Presentation and Publicity	\$ -	\$ -	\$ -	\$ -	-
Total Office Costs	\$ 685,981	\$ 685,981	\$ 837,420	\$ 151,439	22.1%

Explanation of Significant Variances

- Increase in Computer Supplies and Maintenance is related to various security and network infrastructure improvements. (See Information Technology program area section for additional details.)

Table B-9 Professional Services

Professional Services	Budget 2020	Projection 2020	Budget 2021	Variance 2021 Budget v 2020 Budget	Variance %
BOT Fee	\$ 332,000	\$ 332,000	\$ 300,000	\$ (32,000)	-9.6%
BOT Search Fee	\$ -	\$ -	\$ -	\$ -	-
Legal - Reorganization	\$ -	\$ -	\$ -	\$ -	-
Accounting & Auditing Fees	\$ 310,000	\$ 310,000	\$ 370,000	\$ 60,000	19.4%
Legal Fees - Other	\$ 235,000	\$ 235,000	\$ 260,000	\$ 25,000	10.6%
Insurance - Commercial	\$ 70,000	\$ 70,000	\$ 75,000	\$ 5,000	7.1%
Total Services	\$ 947,000	\$ 947,000	\$ 1,005,000	\$ 58,000	6.1%

Explanation of Significant Variances

- Consultant treasurer related fees were reclassified from BOT Fee to Accounting & Auditing Fees.

Table B-10 Miscellaneous

Miscellaneous Expense	Budget 2020	Projection 2020	Budget 2021	Variance 2021 Budget v 2020 Budget	Variance %
Miscellaneous Expense	\$ 51,000	\$ 51,000	\$ 51,000	\$ -	0.0%
Total Miscellaneous Expense	\$ 51,000	\$ 51,000	\$ 51,000	\$ -	0.0%

Table B-11 Other Non-Operating Expenses

Other Non-Operating Expenses	Budget 2020	Projection 2020	Budget 2021	Variance 2021 Budget v 2020 Budget	Variance %
Interest Expense	\$ -	\$ -	\$ -	\$ -	-
Office Relocation	\$ -	\$ -	\$ -	\$ -	-
Total Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	-

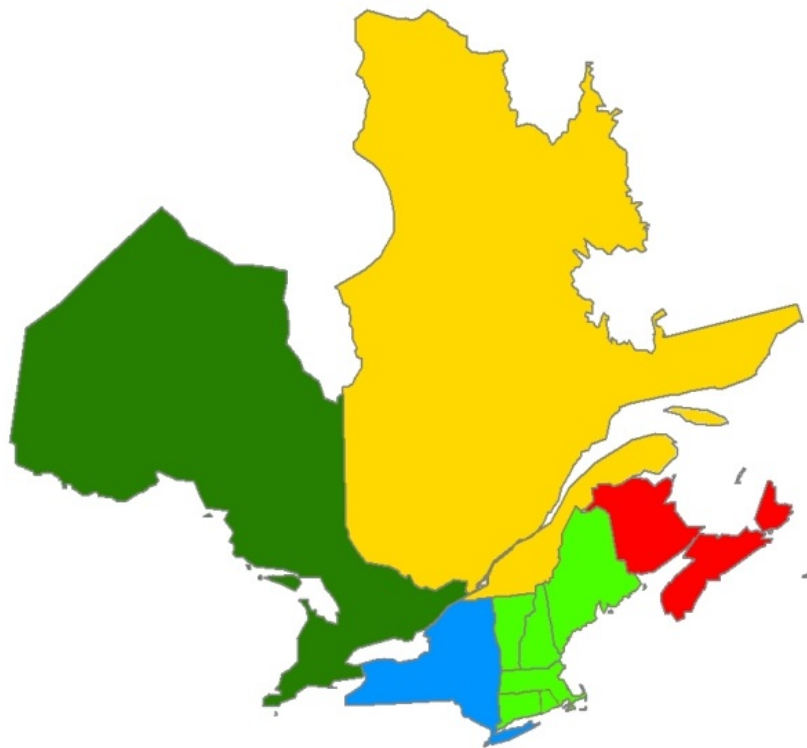
Table B-12 Fixed Assets

Fixed Asset Additions	Budget 2020	Projection 2020	Budget 2021	Variance 2021 Budget v 2020 Budget	Variance %
Equipment CapEx	\$ -	\$ -	\$ -	\$ -	-
Computer & Software CapEx	\$ 170,000	\$ 170,000	\$ 65,800	\$ (104,200)	-61.3%
Furniture & Fixtures CapEx	\$ -	\$ -	\$ 14,100	\$ 14,100	-
Leasehold Improvements	\$ -	\$ -	\$ 14,100	\$ 14,100	-
Allocation of Fixed Assets	\$ -	\$ -	\$ -	\$ -	-
Total Fixed Asset Additions	\$ 170,000	\$ 170,000	\$ 94,000	\$ (76,000)	-44.7%

Explanation of Significant Variances

- Computer and software capital expenditures include the implementation of a security controls framework and data loss prevention strategy, as well as continuing enhancement of the document management system and equipment upgrades.
- Other planned capital expenditures include reconfigurations of office space related to succession planning.

Section C — Criteria Services Division Activities 2021 Business Plan and Budget



Section C – Criteria Services Division Activities

Criteria Services Division			
(in whole dollars)			
	2020 Budget	2021 Budget	Increase (Decrease)
Total FTEs	2.14	2.14	0.00
Total Direct Expenses	\$662,756	\$605,718	(\$57,038)
Total Indirect Expenses	\$415,818	\$387,995	(\$27,824)
Other Non-Operating Expenses	\$0	\$0	\$0
Working Capital and Operating Reserves Requirement	(\$49,707)	(\$324,222)	(\$274,515)
Fixed Asset Additions	\$30,000	\$6,000	(\$24,000)
Funding Requirement	\$1,058,866	\$675,491	(\$383,376)

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 new or revised Regionally-specific, more stringent reliability criteria and supporting guideline or procedural documents. The requirements in NPCC Reliability Criteria apply only to those facilities defined as NPCC Bulk Power System elements through the performance based methodology identified in the NPCC Document A-10, “Classification of Bulk Power System Elements.”

In accordance with the NERC Rules of Procedure (RoP) Section 313, Regional Entities may develop Regional Criteria necessary to implement, augment, or facilitate compliance with NERC Reliability Standards. NPCC’s Directories contain Regional Criteria which consists of requirements which provide an increased level of reliability to the NPCC defined bulk power system. The criteria impose more stringent requirements than those which appear in the NERC reliability standards. The Regional Criteria may also be utilized to address issues not within the scope or jurisdiction of FERC as outlined in Section 215 of the Federal Power Act, such as resource adequacy. Regional Criteria may also address Canadian Provincial reliability issues, and may include specific operating or planning parameters, guides, agreements, protocols or other documents used to enhance the reliability of the Bulk Power System in the Region. These documents typically provide benefits by promoting more consistent implementation of the NERC Reliability Standards within the Region. These documents are not NERC Reliability Standards, Regional Reliability Standards, or Regional Variances, and therefore are not enforceable under the authority delegated by NERC pursuant to delegation agreements.

On a periodic basis and also as NERC Reliability Standards are revised or new standards are developed, NPCC performs reviews of any associated Regional Criteria for possible impact (e.g. continued need or revision). During the criteria review process NPCC’s Task Forces review not only the incremental reliability benefit, but also the cost effectiveness of the criteria. In addition, as NERC standards are improved, revised, and ultimately approved by the FERC some requirements of the NPCC Regional Criteria may become unnecessary in the US portion of NPCC. In these situations it is important that the criteria remains in place until such time as the all NPCC’s Canadian Provincial regulators adopt the NERC standard to ensure no reliability gaps exist.

For 2021 and beyond, the potential reliability impacts of increased penetration of Distributed Energy Resources (DER, e.g. solar and wind), and changing fuel mixes warrant further consideration. The Criteria Services Division has a unique opportunity to review these issues and develop criteria, guideline, and procedural documents for DER which may be outside of the jurisdiction of FERC and NERC Reliability Standards. Participation of the entities responsible for development of DER renewable resources to develop reliability documents will become increasingly important over time. Outreach, collaboration, and coordination of topics related to DER will enable NPCC to develop guidance allowing more effective integration of these resources.

Increasing resilience of the BPS through alternative approaches to standards development using potential NPCC criteria, guidelines, and whitepapers will also be continually reviewed by NPCC's body of subject matter experts.

Membership and Governance

Full members, in accordance with NPCC's Amended and Restated Bylaws, are subject to compliance with Regionally-specific criteria 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.

Under Criteria Services NPCC will identify for membership, those entities involved in emerging technologies to assure that those entities that have an impact on Bulk Electric System reliability are included in appropriate NPCC activities.

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.

2021 Assumptions and Cost Impacts

The Criteria Services division activities are expected to remain stable or slightly increase throughout 2020 depending on reliability need.

- The Criteria Compliance Enforcement Program (CCEP) review and evaluation process is the mechanism for monitoring key criteria attributes as determined by the respective NPCC Task Forces and the Compliance Committee.
- Past non-compliances, if any, followed the due process stated in the CCEP-1 process document and proper resolution/enforcement action taken.

2021 Primary Goals and Objectives

- Continue with the development and maintenance of a set of NPCC Directories which augment or add specificity to the NERC Reliability Standards and which clearly delineate the more stringent NPCC criteria requirements. The combination of North American and more stringent NPCC Regional criteria provide for consistency and operational clarity while providing more robust defense in–depth, results based, criteria requirements to ensure NPCC BPS reliability.
- Continually review the criteria found in the NPCC Directories and the ERO standards to ensure no redundancies or inconsistencies exist.
- Retire Directories and/or Criteria which have been overtaken by improved NERC standards.
 - Directory No. 12 “Automatic Underfrequency Load Shedding Requirements” will be retired in 2021 upon approval of PRC-006-NPCC-2 “Automatic Underfrequency Load Shedding” Regional Standard by all the Canadian Provincial Authorities
- Identify opportunities to develop criteria, procedures or guideline documents to address reliability related matters with DER.
- Identify opportunities to address improvements in BES resilience with NPCC processes and documentation.
- Continually review the need to file revised and updated 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 augment and are not 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 any 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 clarifications for NPCC Criteria with the necessary subject matter experts and also identify any other potential opportunities for clarifications of the Criteria.

NPCC Reliability Directory Maintenance and Development

The NPCC Regional Reliability Directories were developed to demonstrate that the NPCC more stringent criteria augment, add specificity, or address issues not covered in the NERC Reliability Standards as mandated by the NERC Rules of Procedure. The conversion of NPCC’s reliability 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. Subsequent to the initial establishment of the Directories, which also organized functionally related B Guidelines and C Procedures into a single Directory, the

Directories were further reviewed to translate existing criteria language into a requirements and “standards type” format. The development of the criteria into NERC style requirements facilitates the NPCC Region’s CCEP and also ensures the delineation of the more stringent and more specific Regional criteria from the latest approved and effective set of NERC ERO standards.

In 2021, work will continue with the maintenance, revision, or potential retirement of individual Directories to address any actual or anticipated redundancies with new or modified NERC or NPCC Reliability Standards. The ongoing review and maintenance of the Directories will require Task Force and Criteria Services staff to support this effort and to serve as subject matter experts. In addition to the ongoing review of the criteria within the Directories for potential duplicity with the NERC standards, any Directories that have not had the criteria translated into NERC style requirements will also be reviewed in order to achieve criteria “requirements” which are clear, concise and measurable. Also, a standards style template will continue to be applied to the existing Directories to make them more consistent with the format of NERC standards. As NERC standards improve, the need for NPCC Directories and the amount of criteria contained therein may decrease over time, however in the interim, significant review is necessary to ensure the criteria remain consistent 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.

Additionally, as NERC Reliability Standards are developed, associated Directories will be reviewed for continued need. This review will identify the incremental reliability enhancement the Directory’s criteria will yield, determine if the enhancement is sufficient to warrant retention and if so, are there any potential cost effective alternatives that may exist to achieve that enhanced level of reliability.

NPCC Operations and Planning Directories

The following Directories are envisioned to remain active for 2021.

Directory #1, Design and Operation of the Bulk Power System.

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 TFCP and TFCO completed a review of the Directory#1 criteria in 2019, during which the criteria was translated into NERC style requirements and revisions were enacted to ensure consistency with recent changes to the TPL and TOP standards.

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 reviewed this Directory in 2019.

Directory #4, System Protection Criteria

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 next review and revision.

Directory #5, *Reserve*

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 and ensure consistency with the BAL standards under revision in 2020.

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 reviewed and revised the document in 2020 to ensure consistency with the Remedial Action Scheme PRC-012 standard.

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 the review and revision of this Directory in 2021.

Directory #11, *Disturbance Monitoring Equipment*,

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 developed Directory#11 in order to facilitate the retirement of the NPCC Regional Standard PRC -002-NPCC-1.

NPCC Criteria Compliance and Enforcement Program (CCEP)

The NPCC Criteria Services division supports the reliable operation of the NPCC Bulk Power System (BPS) through implementation of the NPCC Criteria Compliance Program (CCEP). This program monitors, assesses, and enforces compliance on a subset of the regionally specific, more stringent NPCC Criteria that are unique to the NPCC BPS and are not duplicative of the NERC Reliability Standards. The physical characteristics and topology of the transmission system within the Region require that certain aspects of criteria be monitored for compliance.

The Criteria Services division and the NPCC Compliance Committee (CC) administer the CCEP. The CC is a stakeholder body consisting of NPCC Members and is structured by the seven sectors that appear in the NPCC Bylaws.

Noncompliance to NPCC Criteria is not subject to monetary sanctions and results in a notification of noncompliance to the Chief Executive Officer of the appropriate Full Member.

The CCEP program is described in document CCEP-1, *NPCC Criteria Compliance and Enforcement Program (CCEP) Process Document*. The CC reviews CCEP-1 annually and revisions to CCEP-1 are reviewed and approved by the CC.

The CCEP-1 document:

1. Provides a comprehensive CCEP Process Flow Diagram showing the process of evaluating and approving Criteria Certification submittals, and additional processes and responsibilities in the event that noncompliances, disputes, and sanctions arise;

2. Describes the roles and responsibilities of Reporting Members, the CC, the NPCC Reliability Coordinating Committee, and the Enforcement Panel in the compliance review and enforcement process
3. Describes non-monetary Sanctions, the Lateness Policy, and the Arbitration/Dispute Resolution process
4. Addresses the development of Mitigation Plans for any violations under the enforcement process

The CCEP Working Group (under the CC) develops a draft of the annual CCEP Implementation Plan and updates the blank certification templates for the upcoming Plan year. The Implementation Plan identifies the subset of Criteria that must be certified to and includes the certification form due dates. The draft CCEP Implementation Plan for the coming year and the draft certification templates are then submitted to the CC for review and approval.

The CC members review the completed certification forms that are returned by Full Members. NPCC staff develops an assessment report and scorecard that summarizes the certifications that were received for the CC to review and approve. The assessment report and any recommendations on non-compliances are then presented to the NPCC Reliability Coordinating Committee (RCC) for approval.

Compliance to the NPCC Criteria is a responsibility of the NPCC Members and is codified in the *AMENDED AND RESTATED BYLAWS OF NORTHEAST POWER COORDINATING COUNCIL, INC.* Implementation of the CCEP is also consist with the current Memorandum of Understanding that NPCC has with its Canadian Members.

Resource Requirements

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be remotely attended via teleconference and webinar in 2021.

2020 Budget and Projection and 2021 Budget Comparisons

Statement of Activities and Capital Expenditures					
2020 Budget & Projection, and 2021 Budget					
CRITERIA SERVICES DIVISION					
	2020	2020	Variance	2021	Variance
	Budget	Projection	2020 Projection	Budget	2021 Budget
			v 2020 Budget		v 2020 Budget
			Over(Under)		Over(Under)
Funding					
ERO Funding					
ERO Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalty Sanctions	-	-	-	-	-
Total ERO Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Membership Dues	1,065,202	1,065,202	-	671,755	(393,447)
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops & Misc Revenue	-	-	-	-	-
Interest & Investment Income	4,200	4,200	-	3,736	(464)
Total Funding (A)	\$ 1,069,402	\$ 1,069,402	\$ -	\$ 675,491	\$ (393,911)
Expenses					
Personnel Expenses					
Salaries	\$ 367,979	\$ 367,979	\$ -	\$ 336,972	\$ (31,008)
Payroll Taxes	24,864	24,864	-	23,317	(1,546)
Benefits	123,261	123,261	-	86,435	(36,826)
Retirement Costs	41,954	41,954	-	36,654	(5,299)
Total Personnel Expenses	\$ 558,057	\$ 558,057	\$ -	\$ 483,378	\$ (74,679)
Meeting Expenses					
Meetings	\$ 14,000	\$ 14,000	\$ -	\$ 11,200	\$ (2,800)
Travel	56,800	56,800	-	45,440	(11,360)
Total Meeting Expenses	\$ 70,800	\$ 70,800	\$ -	\$ 56,640	\$ (14,160)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 76,360	\$ 76,360	\$ -	\$ 57,700	\$ (18,660)
Office Rent	-	-	-	-	-
Office Costs	-	-	-	4,000	4,000
Professional Services	-	-	-	-	-
Computer & Equipment Leases	-	-	-	-	-
Miscellaneous	4,000	4,000	-	4,000	-
Total Operating Expenses, excluding Depreciation	\$ 80,360	\$ 80,360	\$ -	\$ 65,700	\$ (14,660)
Total Direct Expenses	\$ 709,217	\$ 709,217	\$ -	\$ 605,718	\$ (103,499)
Indirect Expenses	\$ 409,450	\$ 409,450	\$ -	\$ 387,995	\$ (21,456)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 1,118,668	\$ 1,118,668	\$ -	\$ 993,713	\$ (124,955)
Change in Net Assets (=A-B)	\$ (49,265)	\$ (49,265)	\$ -	\$ (318,222)	\$ (268,957)
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 30,000	\$ 30,000	\$ -	\$ 6,000	\$ (24,000)
TOTAL BUDGET (=B+C)	\$ 1,148,668	\$ 1,148,668	\$ -	\$ 999,713	\$ (148,955)
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (79,265)	\$ (79,265)	\$ -	\$ (324,222)	\$ (244,957)

Personnel Analysis

Total FTEs by Program Area	Budget 2020	Projection 2020	Direct FTEs 2021 Budget	Shared FTEs ¹ 2021 Budget	Total FTEs 2021 Budget	Change from 2020 Budget
CRITERIA SERVICES DIVISION						
Operational Programs						
Reliability Standards	1.08	1.08	1.00	0.07	1.07	-0.01
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	1.08	1.08	1.00	0.07	1.07	-0.01
Situation Awareness and Infrastructure Security	0.00	0.00	0.00	0.00	0.00	0.00
Total FTEs Operational Programs	2.16	2.16	2.00	0.14	2.14	-0.02
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	2.16	2.16	2.00	0.14	2.14	-0.02

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

Reserve Analysis

Working Capital and Operating Reserve Analysis 2020-2021					
CRITERIA SERVICES DIVISION					
	Total Reserve	Operating Reserve	Working Capital	Business Continuity	
Beginning Total Reserve, December 31, 2019	743,902	595,147	88,755	60,000	
2020 Non-Statutory Funding (from members)	1,065,202	1,065,202			
Plus: 2020 Other funding sources	0	0			
Less: 2020 Projected expenses & fixed asset additions	(1,148,668)	(1,122,128)		(26,540)	
Projected Total Reserve, December 31, 2020	660,437	538,222	88,755	33,460	
Desired Total Reserve, December 31, 2021	336,214	249,928 ¹	83,306 ²	2,980 ³	
Less: Projected Total Reserve, December 31, 2020	(660,437)	(538,222)	(88,755)	(33,460)	
Increase(decrease) in assessments to achieve desired Total Reserve	(324,222)	(288,293)	(5,449)	(30,480)	
2021 Funding requirement for expenses and fixed asset additions	999,713				
Less: Other Funding Sources	(3,736)				
Less: Release of Business Continuity Reserve Funds ³	(30,480)				
Adjustment to Working Capital to achieve desired Total Reserve balance ²	(5,449)				
Adjustment to Operating Reserve to achieve desired Total Reserve balance ¹	(288,293)				
2021 Funding and reserve requirement	671,755				

¹ Operating Reserve must be within a range from 8.33% to 25.00% of Budget. \$249,928 represents 25.00% of the 2021 budget of \$999,713.

² Working Capital must equal 8.33% of Budget. \$83,306 represents 8.33% of the 2021 budget of \$999,713.

³ Business Continuity Reserve (BCR) established in 2017 as approved by the NPCC Board of Directors to fund Succession Planning related expenses.

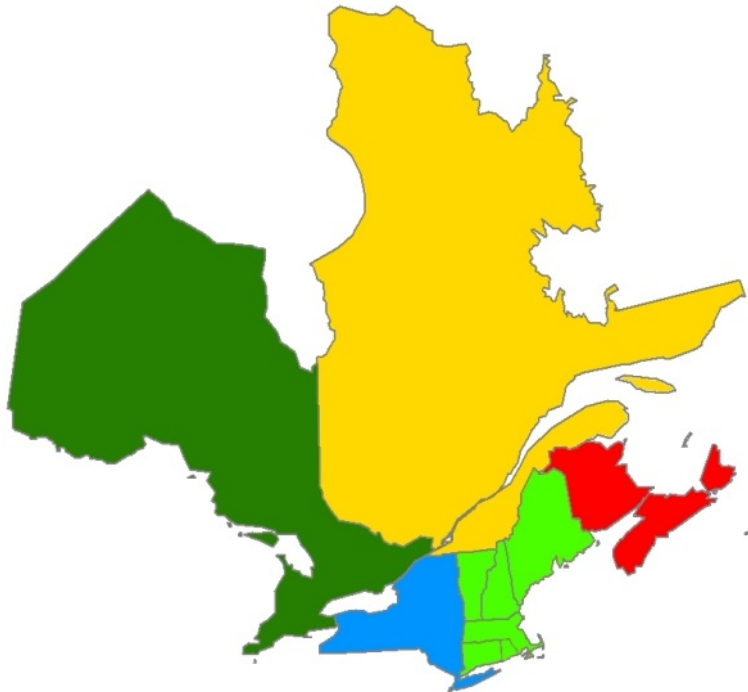
Explanation of Changes in Reserve Policy from Prior Year

There was no change to the existing Working Capital and Operating Reserve Policy. For 2021, Criteria Services assessments are decreasing by a percentage greater than decrease in budget in order to reduce the operating reserve in accordance with the established range. The Operating reserve must be within a range from 8.33% to 25.00% of budget. The projected operating reserve balance at year end 2021 of \$249,928 represents 25.00% of the 2021 Criteria Services budget of \$999,713.

A separate Business Continuity Reserve (BCR) in the amount of \$1,000,000 (allocated between the Regional Entity and Criteria Services divisions) was established in 2017 as approved by the NPCC Board of Directors, upon recommendation by the Management Development and Compensation Committee and endorsement by the Finance and Audit Committee, to be drawn upon as subsequently brought before the Board of Directors for approval of release of funds in association with President & CEO succession related activities associated with the planned or a sudden retirement, as well as other sudden changing workforce staffing requirements which could be brought about by coincident multiple staff retirements.

Section D – Additional Consolidated Financial Statements

2021 Business Plan and Budget



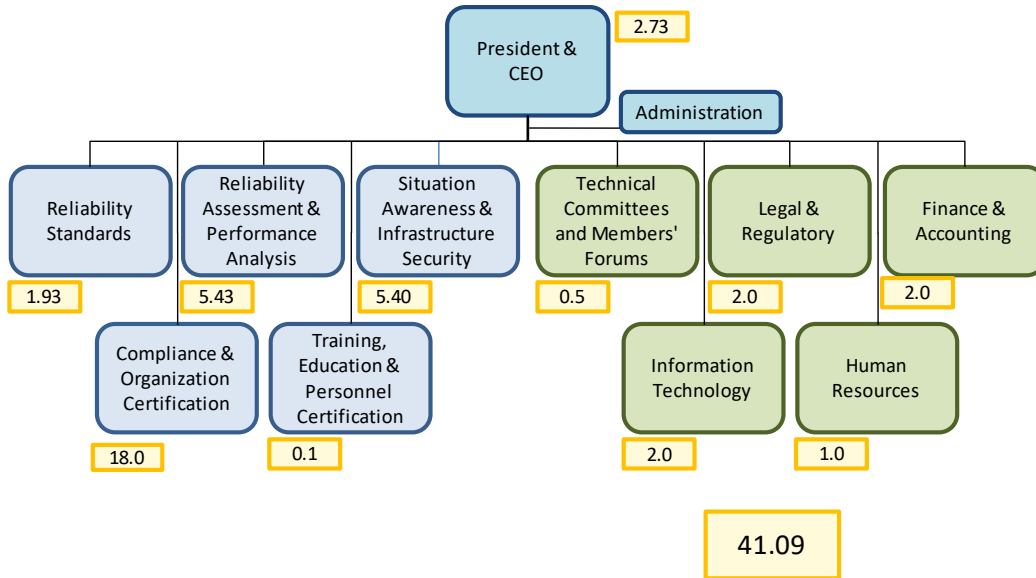
Section D — Additional Financial Statements

Statement of Financial Position

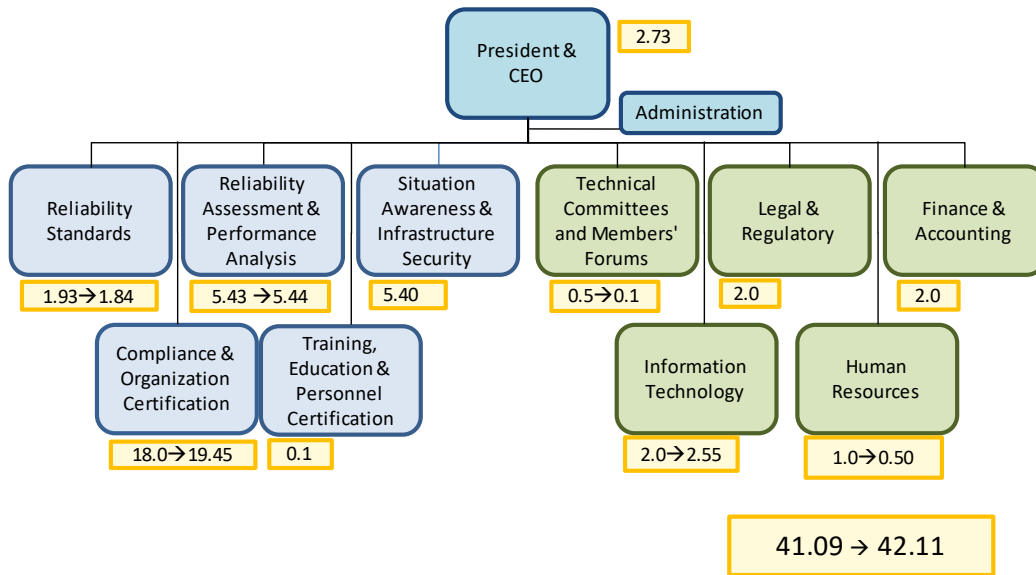
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Appendix A Staff Allocations

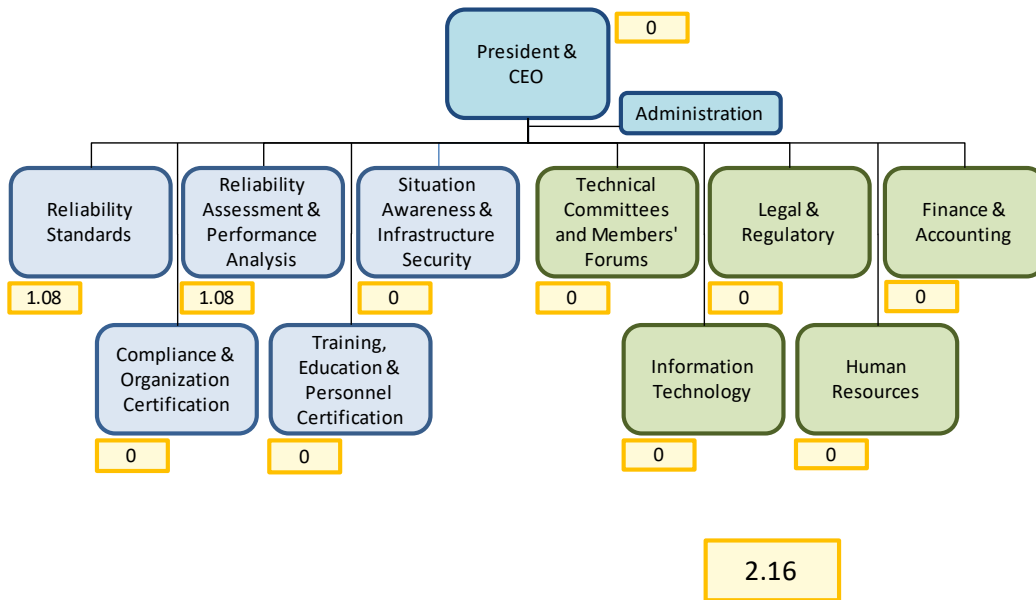
2020 Budget Staff Allocations - RE Division



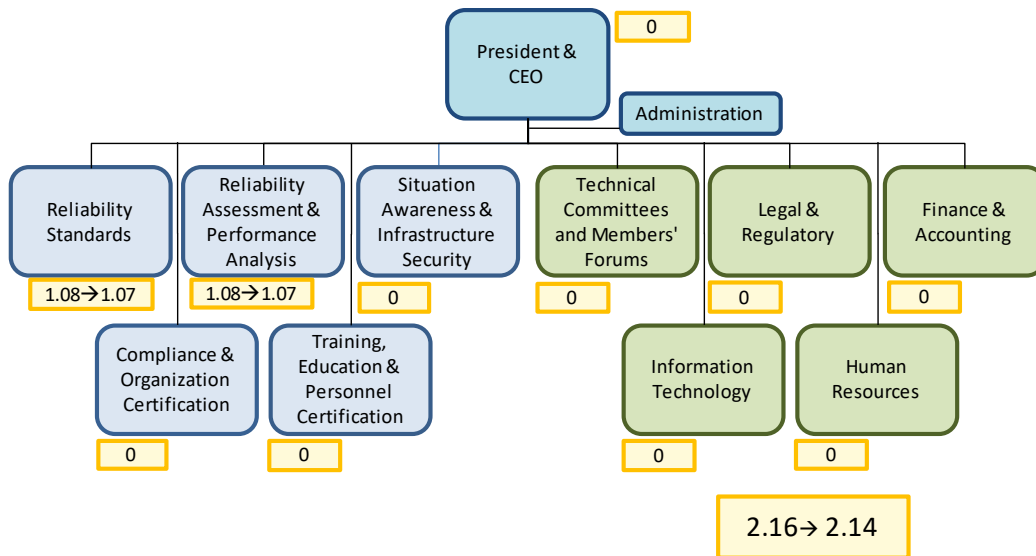
2021 Budget Staff Allocations - RE Division



2020 Budget Staff Allocations - CS Division



2021 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
BEP	BES Exception Process
BES	Bulk Electric System
BPS	Bulk Power System
CC	Compliance Committee
CCEP	Criteria Compliance and Enforcement Program
CDAA	CMEP Data Administration Application
CEH	Continuing Education Hour
CGNC	Corporate Governance and Nominating Committee
CMEP	Compliance Monitoring and Enforcement Program
COP	Compliance Oversight Plan
CORC	Compliance Monitoring and Enforcement and Organization Registration and Certification Program
CORES	Centralized Organization Registration ERO System
CUG	Consortium Users Group
DADSWG	Demand Response Availability Data System Working Group
DER	Distributed Energy Resources
DHS	Department of Homeland Security
DOE	Department of Energy
EAP	ERO Event Analysis Process
EIC	Evaluation of Internal Controls
E-ISAC	Electricity Information Sharing and Analysis Center
EPHPIS	Electric Power Human Performance Improvement Symposium
ERAG	Eastern Interconnection Reliability Assessment Group
ERO	Electric Reliability Organization
FAC	Finance and Audit Committee
FERC	Federal Energy Regulatory Commission
FFT	Find, Fix, Track and Report
GADSWG	Generating Availability Data System Working Group
GMD	Geomagnetic Disturbance
HQCMÉ	Hydro-Québec Contrôle des mouvements d'énergie
HSIN	Homeland Security Information Network
IESO	Independent Electricity System Operator
IRA	Inherent Risk Assessment
IRPTF	Inverter-Based Resource Performance Task Force
ISO	Independent System Operator
LMTF	Load Modeling Task Force
LSE	Load Serving Entity
MACD	Market Assessment and Compliance Division
MDCC	Management Development and Compensation Committee
ME	Mitigation and Enforcement
MIDASWG	Misoperation Information Data Analysis System Working Group
MMWG	Multi-Regional Modeling Working Group
MOU	Memorandum of Understanding
NAERM	North American Energy Resilience Model
NAESB	North American Energy Standards Board
NATF	North American Transmission Forum
NBEUB	New Brunswick Energy and Utilities Board
NBMG	Node Breaker Modeling Group

Appendix B

Acronym	Definition
NCCIC	National Cybersecurity and Communications Integration Center
NEL	Net Energy for Load
NERC	North American Electric Reliability Corporation
NLH	Newfoundland and Labrador Hydro
NOI	Notice of Inquiry
NOPR	Notice of Proposed Rulemaking
NPCC	Northeast Power Coordinating Council, Inc.
NSPI	Nova Scotia Power Incorporated
NSUARB	Nova Scotia Utility and Review Board
OEB	Ontario Energy Board
ORCG	Organization Registration and Certification Group
PAS	Performance Analysis Subcommittee
PAWG	Probabilistic Assessment Working Group
PC	Pension Committee
PJM	Pennsylvania-Jersey-Maryland Interconnection LLC., Regional Transmission Organization
PPM/TF	Power Plant Model Verification Task Force
PSWG	Physical Security Working Group
QCMEP	Québec Reliability Standards Compliance Monitoring and Enforcement Program
RAPA	Reliability Assessment and Performance Analysis
RAPA-SG	ERO RAPA Steering Group
RAS	Reliability Assessment Subcommittee
RAS	Remedial Action Scheme
RC	Reliability Coordinator
RCC	Reliability Coordinating Committee
RISC	Reliability Issues Steering Committee
RSC	Regional Standards Committee
RSTC	Reliability and Security Technical Committee
RTWG	Reliability Training Working Group
RTO	Regional Transmission Organization
SAFNR	Situational Awareness-FERC, NERC, Regions
SAIS	Situation Awareness and Infrastructure Security
SAMS	System Analysis and Modeling Subcommittee
SAR	Standards Authorization Request
SCPS	Standards Committee Process Subcommittee
SDT	Standards Drafting Team
SPCS	System Protection and Control Subcommittee
SMS	Synchronized Measurement Subcommittee
SPIDERWG	System Planning Impacts from Distributed Energy Resources Working Group
SPS	Special Protection Systems
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
UFLS	Underfrequency Load Shedding

Appendix C

Index of Figures and Tables

		Table to be Inserted		