



Northeast Power Coordinating Council, Inc. (NPCC)

2022 Business Plan and Budget

Draft #1

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Introduction

Total NPCC Resources (in whole dollars)				
	2022 Budget	U.S.	Canada	Mexico
Regional Entity Division FTEs	49.90			
Criteria Services Division FTEs	2.10			
Total FTEs	52.00			
Regional Entity Division Expenses	\$17,353,983			
Criteria Services Division Expenses	\$941,761			
Total Expenses	\$18,295,744			
Regional Entity Division Inc(Dec) in Fixed Assets	\$111,150			
Criteria Services Division Inc(Dec) in Fixed Assets	\$5,850			
Total Inc(Dec) in Fixed Assets	\$117,000			
Regional Entity Division Working Capital Requirement**	(\$1,289,473)			
Criteria Services Division Working Capital Requirement***	(\$309,331)			
Total Working Capital Requirement	(\$1,598,804)			
Total Regional Entity Division Funding Requirement	\$16,175,660			
Total Criteria Services Division Funding Requirement	\$638,280			
Total Funding Requirement	\$16,813,940			
Regional Entity Division Assessments	\$15,912,313	\$XXX,XXX	\$XXX,XXX	
Regional Entity Division Assessments Percentage	100%	XX.X%	XX.X%	
Criteria Services Division Membership Fees	\$636,745	\$XXX,XXX	\$XXX,XXX	
Total NPCC Assessments & Membership Fees	\$16,549,058	\$XXX,XXX	\$XXX,XXX	
NEL	XX	XX	XX	
NEL %	100%	XX.XX%	XX.XX%	

Table 1: NPCC Budget

** Refer to Table B-1 on page 63 in Section B.

*** Refer to the Reserve Analysis on page 80 in Section C.

2022 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 a budget change of 5.6% and assessments change of 4.6%. On a divisional level, NPCC proposes a Regional Entity budget change of 6.2% and assessments change of 5.0% and a Criteria Services division budget change of -5.2% and assessment change of -5.2%. The proposed 2022 funding requirements will be satisfied by a Regional Entity division assessment of \$15,912,313 and Criteria Services division membership fees of \$636,745, for a total of \$16,549,058. The total NPCC assessments and fees represent a change of 4.6% compared to the 2021 total assessments and fees of \$15,826,338. 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, (ii) coordination of system planning, design and operations, and assessment of reliability (collectively, Regional Entity activities), and (iii) 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. From a net energy for load perspective, NPCC is approximately 44% U.S. and 56% Canadian; while approximately 65% of Canadian net energy for load is within the NPCC Region.

Effective January 1, 2021, 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.

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 Regional Delegation Agreement incorporates 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 provides for 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 2022 targeted staffing level of 52 power industry professionals and support personnel. Details of the 2022 business plans and budget for each program area are included in Section A for the Regional Entity division. The 2022 Regional Entity division supplemental financial schedules are shown in Section B. Section C details the 2022 Criteria Services division business plan and budget.

Membership and Governance

NPCC monitors approximately 239 registered entities and some 472 functions in the Region for compliance with mandatory Reliability Standards. NPCC currently has approximately 97 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 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), transmission companies, 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. Full Members also 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 Regional Standards Committee (RSC), the Compliance Committee (CC), the Reliability Coordinating Committee (RCC), and the Public Information Committee (PIC), 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.

In addition, all 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 the 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 is delegated from NERC to NPCC through the *Amended and Restated Regional Delegation Agreement*.

b) Ontario

NPCC activities in Ontario are executed in accordance with a February 5, 2010, MOU between NERC, NPCC and the Independent Electricity System Operator (IESO) in Ontario.

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.

The IESO is subject to compliance monitoring and enforcement by NPCC.

The IESO is subject to NPCC assessments of compliance, including audits, as well as NPCC remedial action directives to correct noncompliance. 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.

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 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.

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, the Nova Scotia Utility and Review Board (NSUARB) issues decision on standards and criteria filed by NERC and NPCC for approval in Nova Scotia.

NPCC conducts compliance and enforcement activities with respect to the standards and forwards any noncompliance 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.

2022 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 continent-wide and Regional Reliability Standards, facilitating a Distributed Energy Resources (DER) Variable Energy Resource (VER) Forum, and expanding activities related to working with State and Provincial Regulators to facilitate achievement of decarbonization goals. 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.

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 Regional 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.
- Facilitate the reliable deployment of Distributed Energy Resources (DER) and Variable Energy Resources (VER).
- 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.
- Coordinate NPCC and NERC activities with local State and Provincial Regulators to facilitate meeting decarbonization goals.

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

2022 Overview of Regional Entity Division Cost Impacts

The proposed Regional Entity division assessment of \$15,912,313, to support the Regional Entity division budget of \$17,465,133, is a change of 5.0% compared to the 2021 assessment of \$15,154,584. NPCC has budgeted an increase in staffing of 7.79 FTEs, comprised of 6.72 FTEs in statutory programs (including 5.50 FTEs in the Compliance Monitoring and Enforcement and Organization Registration and Certification program) and 1.07 FTEs in Administrative programs.

2021 Projections

Current year projections are taken into consideration in development of the budget. Expenses are currently projected to be under budget in the aggregate for 2021. 2021 Projections reflect expectations based on the first quarter variance report. It is anticipated that projections could change throughout 2021 and would be reflected in each subsequent quarter's variance report.

Summary by Program

Program	Budget 2021	Projection 2021	Budget 2022	Variance	
				2022 Budget v 2021 Budget	Variance %
Reliability Standards	\$ 968,675	\$ 978,938	\$ 966,823	\$ (1,852)	-0.2%
Compliance Monitoring and Enforcement and Organization Registration and Certification	\$ 9,030,944	\$ 8,971,155	\$ 10,119,600	\$ 1,088,656	12.1%
Reliability Assessments and Performance Analysis	\$ 3,314,770	\$ 3,382,272	\$ 3,744,171	\$ 429,401	13.0%
Training, Education and Operator Certification	\$ 242,257	\$ 87,174	\$ 172,931	\$ (69,326)	-28.6%
Situation Awareness and Infrastructure Security	\$ 2,406,482	\$ 2,444,206	\$ 2,461,608	\$ 55,126	2.3%
Total	\$ 15,963,128	\$ 15,863,744	\$ 17,465,133	\$ 1,502,005	9.4%

Table 2: Budget by Program Area

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

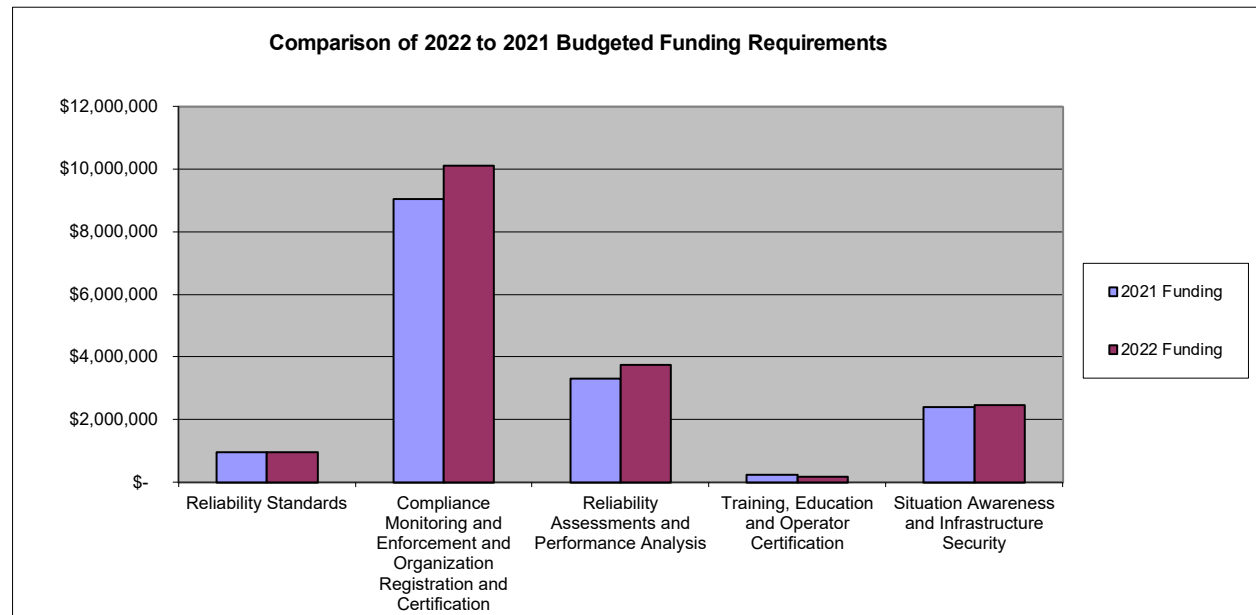


Figure 1: Budget by Program Area Chart

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

Personnel Analysis

Total FTE's by Program Area	Budget 2021	Projection 2021	Direct FTEs 2022 Budget	Shared FTEs ¹ 2022 Budget	Total FTEs 2022 Budget	Change from 2021 Budget
REGIONAL ENTITY DIVISION						
Operational Programs						
Reliability Standards	1.84	1.84	1.00	0.85	1.85	0.01
Compliance Monitoring and Enforcement and Organization Registration and Certification	19.45	22.45	24.95	0.00	24.95	5.50
Training, Education, and Operator Certification	0.10	0.10	0.10	0.00	0.10	0.00
Reliability Assessment and Performance Analysis	5.44	5.44	5.50	0.95	6.45	1.01
Situation Awareness and Infrastructure Security	5.40	5.40	5.60	0.00	5.60	0.20
Total FTEs Operational Programs	32.23	35.23	37.15	1.80	38.95	6.72
Administrative Programs						
Technical Committees and Member Forums	0.10	0.10	0.00	0.10	0.10	0.00
General and Administrative	2.73	3.23	2.50	0.00	2.50	-0.23
Information Technology	2.55	3.55	3.85	0.00	3.85	1.30
Legal and Regulatory	2.00	2.00	2.00	0.00	2.00	0.00
Human Resources	0.50	0.00	0.50	0.00	0.50	0.00
Accounting and Finance	2.00	2.00	2.00	0.00	2.00	0.00
Total FTEs Administrative Programs	9.88	10.88	10.85	0.10	10.95	1.07
Total FTEs	42.11	46.11	48.00	1.90	49.90	7.79

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

Table 3: Regional Entity Personnel Analysis

Changes are addressed within each program area section.

2021 Budget and Projection and 2022 Budget Comparisons

Statement of Activities and Capital Expenditures 2021 Budget & Projection, and 2022 Budget						
REGIONAL ENTITY DIVISION						
	2021 Budget	2021 Projection	Variance ⁽²⁾ 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ 15,154,584	\$ 15,154,584	\$ -	\$ 15,912,313	\$ 757,729	
Penalties Released ⁽¹⁾	201,132	201,132	-	201,132	(0)	
Total ERO Funding	\$ 15,355,716	\$ 15,355,716	\$ -	\$ 16,113,445	\$ 757,729	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	67,500	-	(67,500)	33,750	(33,750)	
Interest & Investment Income	56,264	15,275	(40,989)	28,465	(27,799)	
Total Funding (A)	\$ 15,479,480	\$ 15,370,991	\$ (108,489)	\$ 16,175,660	\$ 696,180	
Expenses						
Personnel Expenses						
Salaries	\$ 7,982,119	\$ 8,297,656	\$ 315,537	\$ 9,072,408	\$ 1,090,289	
Payroll Taxes	485,768	546,254	60,486	595,815	110,048	
Benefits	2,021,243	2,192,475	171,231	2,234,738	213,494	
Retirement Costs	909,832	908,567	(1,266)	1,041,405	131,573	
Total Personnel Expenses	\$ 11,398,962	\$ 11,944,951	\$ 545,989	\$ 12,944,366	\$ 1,545,404	
Meeting Expenses						
Meetings & Conference Calls	\$ 334,400	\$ 73,200	\$ (261,200)	\$ 230,600	\$ (103,800)	
Travel	727,920	327,960	(399,960)	505,572	(222,348)	
Total Meeting Expenses	\$ 1,062,320	\$ 401,160	\$ (661,160)	\$ 736,172	\$ (326,148)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 1,509,800	\$ 1,163,650	\$ (346,150)	\$ 839,650	\$ (670,150)	
Office Rent	870,141	870,141	-	906,141	36,000	
Office Costs	837,420	1,081,420	244,000	1,218,071	380,651	
Professional Services	1,005,000	1,005,000	-	1,017,000	12,000	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	51,000	51,000	-	51,000	-	
Total Operating Expenses, excluding Depreciation	\$ 4,273,361	\$ 4,171,211	\$ (102,150)	\$ 4,031,862	\$ (241,499)	
Total Direct Expenses	\$ 16,734,643	\$ 16,517,322	\$ (217,321)	\$ 17,712,400	\$ 977,757	
Indirect Expenses	\$ (387,995)	\$ (387,995)	\$ -	\$ (358,417)	\$ 29,578	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 16,346,648	\$ 16,129,328	\$ (217,321)	\$ 17,353,983	\$ 1,007,335	
Change in Net Assets (=A-B)	\$ (867,169)	\$ (758,337)	\$ 108,832	\$ (1,178,323)	\$ (311,154)	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 94,000	\$ 116,000	\$ 22,000	\$ 111,150	\$ 17,150	
TOTAL BUDGET (=B+C)	\$ 16,440,648	\$ 16,245,328	\$ (195,321)	\$ 17,465,133	\$ 1,024,485	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (961,169)	\$ (874,337)	\$ 86,832	\$ (1,289,473)	\$ (328,304)	
<p>⁽¹⁾ \$201,132 of penalties released from the Assessment Stabilization Reserve (ASR) to offset U.S. assessments as approved by the NPCC Board of Directors, NERC and FERC. Actual penalties invoiced in the current reporting year are shown as an increase in the ASR on the reserve summary table and will be reported as income on the audited financial statements in accordance with Generally Accepted Accounting Principles (GAAP).</p> <p>⁽²⁾ 2021 Projections reflect expectations based on the first quarter statement of activities. It is anticipated that projections could change throughout 2021 and would be reflected in each subsequent quarter's statement of activities.</p>						

Table 4: Budget and Current Year Projection Comparison

Section A – Regional Entity Division 2022 Business Plan and Budget

Section A — 2022 Regional Entity Division Business Plan and Budget

Reliability Standards Program

Reliability Standards Program Resources			
(in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	1.84	1.85	0.01
Direct Expenses	\$629,706	\$645,796	\$16,090
Indirect Expenses	\$333,603	\$315,748	(\$17,855)
Other Non-Operating Expenses	\$0	\$0	\$0
Fixed Asset Additions	\$5,366	\$5,279	(\$87)
Total Funding Requirement	\$968,675	\$966,823	(\$1,852)

Table A - 1: Reliability Standards Budget

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 cost effective 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, based on risk, 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 risk to the reliable operation of the BPS. NPCC leverages the subject matter expertise of its staff and member Task Forces and Working Groups to provide comment to reliability related issues during standards development and ensures the ERO standards continually align with NPCC’s reliability objectives and criteria.

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 in accordance with Section 313 of the NERC Rules of Procedure. 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 contractual agreements, e.g. ISO tariffs, and individual interconnection agreements, as well as other agreements. Regional Reliability Criteria may also address issues not within NERC’s statutory jurisdiction for Reliability Standards, such as resource adequacy, and must in all cases conform to stated 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) Variable Energy Resource (VER) Forums. Conventional fossil fuel units and nuclear retirements are increasingly being replaced by VER 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 and virtual power plants. 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 VER, DER, Energy Storage Systems, and hybrid installations of both will introduce new capabilities that could enhance reliability and understanding interoperability issues between transmission and distribution systems, will become increasingly important. Additionally, electric vehicle (EVs) will be an important part of meeting green energy goals. The use of energy to both charge EVs, as well as discharge and participate in energy markets at both the retail and wholesale aggregate level, will have an effect on how NPCC and our ISO conduct planning. 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. NPCC also has an increasing amount of VER in the various ISO queues, specifically offshore wind resources. Integrating these forms of VER requires different designs of planning and protection systems to reliably operate these resources. NPCC will continue to work with these developers to identify opportunities to support their integration into the Regional BPS.

NPCC’s Reliability Standards Program Area has also been conducting outreach activities with local State and Provincial Regulators to coordinate our standards and criteria reliability related work. This outreach promotes coordination of activities to facilitate meeting local decarbonization objectives, increases efficiencies, reduces duplication of effort, identifies obstacles, and provides opportunities to further integrate planning processes while meeting reliability objectives.

2022 Key Assumptions

- Due to the COVID-19 pandemic, a number of lower priority reliability standards development projects had been placed “on-hold” due to stresses on industry resources. Contemporaneously, there have been a number of standards development opportunities identified by FERC, industry, and NERC technical committees to improve cyber security, supply chain, data gathering, and modeling of inverter based resources. It is expected that the industry and NERC technical committees will be submitting a number of standard authorization requests to address other known risks as well, e.g. resilience for extreme events, 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 ERO 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.

2022 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 activities, 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 any 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 mitigate implementation costs for the draft standards and provide comments on cost effective alternative requirements.
- 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 and revise NERC process to ensure efficiency and effectiveness of standards development.
- 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 through closer coordination with 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 RSC 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 to NPCC’s Registered Ballot Body Members and Entities. Develop a list of any unaddressed reliability issues to inform and allow the Members to cast a ballot based on Regional concerns. This will continue to enhance the efficiency of the ERO standards development projects.

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- Review and identify issues and concerns raised in FERC Notice of Proposed Rulemakings (NOPRs) and (Notice of Inquiries) 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) and the Reliability and Security Technical Committee (RSTC) activities as they identify emerging risks, develop recommended actions to mitigate such risks, and endorse Standards Authorization Requests (SARs) to initiate standards development. 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, Geomagnetic Disturbances, High Altitude Electromagnetic Pulse (HEMP), changes to standards driven by inverter based resources DERs, modeling and verification, 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 VER 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 and large VER installations on the Transmission system.
 - Update, maintain and revise the NPCC DER VER guidance document as necessary and promote consistency across the NPCC footprint where possible.
 - In conjunction with the Reliability Coordinating Committee (RCC), 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, collaborate and coordinate with State and Provincial reliability proceedings as they relate to the deployment of DER and VER to meet emissions targets (e.g. New York Dept. of Public Service Interconnection Technical Working Group, Massachusetts Technical Standards Group, etc.).
 - Collaborate with State and Provincial Regulatory Staff to identify areas where NPCC can support local decarbonization goals.
 - Identify and coordinate BPS reliability related issues with applicable Federal, State or Provincial governmental authorities.
 - Ensure the topics addressed by the Reliability Standards align with emerging risks 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 and Standards Grading activities.
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- Identify opportunities and processes for cost-effectiveness analysis activities to determine the need to revise a standard during the Enhanced Periodic Review or Standards Grading activities.
 - Identify any emerging interconnection-wide reliability issues which may need an industry guideline or a reliability standards solution, and provide the input to the NERC Reliability Issues Steering Committee for their consideration.
 - Identify opportunities to increase reliability or mitigate emerging risk(s) through the revision of standards and their associated requirements by notifying NERC and submitting a Standards Authorization Request (SAR) if necessary.
 - Identify any North American Electric Standards Review Board (NAESB) activities which may impact ERO standards e.g. NAESB commercial standards development activities as a result of FERC Order 2222 on DER Aggregator participation in Wholesale Markets.
 - Identify potential market related issues that reliability standards or DER and VER may cause during the NPCC RSC coordination and review process.
 - Participate in NPCC Compliance and Standards Workshops and NERC workshops and webinars to promote industry awareness.

NPCC estimates that it will expend approximately 6% of its resources on Reliability Standards development activities.

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 held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

Reliability Standards Program

Funding sources and related expenses for the Reliability Standards section of the 2022 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 2021 Budget & Projection, and 2022 Budget						
Reliability Standards						
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ 957,193	\$ 957,193	\$ -	\$ 957,270	\$ 77	
Penalty Sanctions	11,483	11,483	-	9,553	(1,929)	
Total ERO Funding	\$ 968,675	\$ 968,675	\$ -	\$ 966,823	\$ (1,852)	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	-	-	-	-	-	
Total Funding (A)	\$ 968,675	\$ 968,675	\$ -	\$ 966,823	\$ (1,852)	
Expenses						
Personnel Expenses						
Salaries	\$ 359,491	\$ 404,520	\$ 45,029	\$ 398,873	\$ 39,382	
Payroll Taxes	21,383	24,618	3,234	23,836	2,453	
Benefits	111,331	107,355	(3,976)	100,793	(10,538)	
Retirement Costs	38,780	43,116	4,335	42,512	3,731	
Total Personnel Expenses	\$ 530,986	\$ 579,608	\$ 48,622	\$ 566,014	\$ 35,028	
Meeting Expenses						
Meetings & Conference Calls	\$ 4,000	\$ 2,000	\$ (2,000)	\$ 3,000	\$ (1,000)	
Travel	72,720	36,360	(36,360)	54,540	(18,180)	
Total Meeting Expenses	\$ 76,720	\$ 38,360	\$ (38,360)	\$ 57,540	\$ (19,180)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 20,000	\$ 20,000	\$ -	\$ 20,000	\$ -	
Office Rent	-	-	-	-	-	
Office Costs	2,000	2,000	-	2,242	242	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Total Operating Expenses, excluding Depreciation	\$ 22,000	\$ 22,000	\$ -	\$ 22,242	\$ 242	
Total Direct Expenses	\$ 629,706	\$ 639,968	\$ 10,262	\$ 645,796	\$ 16,090	
Indirect Expenses	\$ 333,603	\$ 333,603	\$ -	\$ 315,748	\$ (17,855)	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 963,309	\$ 973,571	\$ 10,262	\$ 961,544	\$ (1,765)	
Change in Net Assets (=A-B)	\$ 5,366	\$ (4,896)	\$ (10,262)	\$ 5,279	\$ (87)	
Fixed Asset Additions, excluding Right of Use Assets (C)	5,366	5,366	-	5,279	(87)	
TOTAL BUDGET (=B+C)	\$ 968,675	\$ 978,938	\$ 10,262	\$ 966,823	\$ (1,852)	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ 0	\$ (10,262)	\$ (10,262)	\$ 0	\$ 0	

Table A - 2: Reliability Standards Budget Detail

Compliance Monitoring and Enforcement and Organization Registration and Certification Program

Compliance Monitoring and Enforcement and Organization Registration and Certification Program Resources			
(in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	19.45	24.95	5.50
Direct Expenses	\$5,447,816	\$5,790,066	\$342,250
Indirect Expenses	\$3,526,402	\$4,258,335	\$731,934
Other Non-Operating Expenses	\$0	\$0	\$0
Fixed Asset Additions	\$56,727	\$71,199	\$14,472
Total Funding Requirement	\$9,030,944	\$10,119,600	\$1,088,656

Table A - 3: Compliance Monitoring and Enforcement and Organization Registration and Certification Budget

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 (ROP), and individual Canadian Provincial MOUs and/or Agreements. The program supports Compliance Monitoring and Enforcement (Section 400 of the ROP) and Organization Registration and Certification (Section 500 of the ROP), 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) 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:

- Collaborates 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 and re-Certifications in accordance with the NERC ROP;
- Leads or assists with the development of the annual CMEP 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 ad-hoc evaluations of internal controls (EIC) on volunteering registered entities and,
- Develops compliance oversight plans (COP) for registered entities.

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 voluntary 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 audit reports and spot check reports;
- Provides guided self-certification result letters; and,
- 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 and non-penalty sanctions in consistent fashion;
- Files noncompliance closings with NERC/FERC and Canadian Regulators and,
- Evaluates registered entities for the self-logging program.

2022 Key Assumptions

- CORC activities will be cost effectively addressed with the addition of five FTEs (net increase of 5.50 FTEs compared to 2021 budget including the re-allocation of an employee formerly partially allocated to IT), offset by a decrease in consultants and contracts.
- The 2022 Business Plan projects the same number of enforcement processing activities as the 2021 Budget, however, the complexity of processing noncompliance is expected to continue to increase as entities' compliance history grows and technology continues to evolve and advance.
- One Compliance Investigation is projected for 2022. Compliance Investigations are manpower intensive for NPCC staff (requiring allocation of more resources and potentially higher than normal costs).

2022 Goals and Key Deliverables

- Conduct scheduled compliance monitoring and enforcement activities pursuant to the 2022 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 implement Align and the Secure Evidence Locker (SEL) for CMEP 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/SEL CMEP data application.
- Conduct one in-person and two virtual compliance workshops.
- Develop annual reports for QCMEP/CMEP activity in Québec and New Brunswick.
- Develop and/or provide input on various 2023 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 ad-hoc EIC outreach for registered entities that volunteer for such an assessment.
- Continue to assess internal controls during monitoring engagements.
- Conduct 2022 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 IRA as necessary for all scheduled engagements, performing an EIC for all entities that volunteer, and developing COPs 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 to develop guidance to registered entities in support of a culture of reliability.
- Perform outreach (webinars, workshops) to educate entities on noncompliance root causes, techniques for noncompliance assessment, communication associated with self-reporting, and guidance on the development of mitigation activities that will prevent recurrence.
- Assess evolving cybersecurity risks for opportunities to provide entity guidance.

NPCC estimates that it will expend 57% of its resources on CORC activities.

Resource Requirements

Personnel

- Increase of 5.50 FTEs (including the re-allocation of an FTE formerly partially allocated to IT), to increase in-house expertise. Increase in personnel expenses will be partially 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 held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

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 2022 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						
2021 Budget & Projection, and 2022 Budget						
Compliance Monitoring and Enforcement and Organization Registration and Certification						
			Variance		Variance	
	2021	2021	2021 Projection	2022	2022 Budget	
	Budget	Projection	v 2021 Budget	Budget	v 2021 Budget	Over(Under)
			Over(Under)		Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ 8,444,793	\$ 8,444,793	\$ -	\$ 9,525,989	\$ 1,081,196	
Penalty Sanctions	121,378	121,378	-	128,838	7,460	
Total ERO Funding	\$ 8,566,171	\$ 8,566,171	\$ -	\$ 9,654,827	\$ 1,088,656	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	-	-	-	-	-	
Total Funding (A)	\$ 8,566,171	\$ 8,566,171	\$ -	\$ 9,654,827	\$ 1,088,656	
Expenses						
Personnel Expenses						
Salaries	\$ 3,058,980	\$ 3,310,431	\$ 251,451	\$ 3,863,613	\$ 804,634	
Payroll Taxes	214,978	245,369	30,391	286,998	72,021	
Benefits	834,388	943,516	109,128	1,001,839	167,450	
Retirement Costs	333,201	349,151	15,950	422,710	89,509	
Total Personnel Expenses	\$ 4,441,546	\$ 4,848,466	\$ 406,920	\$ 5,575,160	\$ 1,133,614	
Meeting Expenses						
Meetings & Conference Calls	\$ 12,000	\$ 6,000	\$ (6,000)	\$ 4,000	\$ (8,000)	
Travel	269,120	134,560	(134,560)	161,472	(107,648)	
Total Meeting Expenses	\$ 281,120	\$ 140,560	\$ (140,560)	\$ 165,472	\$ (115,648)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 707,150	\$ 381,000	\$ (326,150)	\$ 32,000	\$ (675,150)	
Office Rent	-	-	-	-	-	
Office Costs	18,000	18,000	-	17,434	(566)	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Total Operating Expenses, excluding Depreciation	\$ 725,150	\$ 399,000	\$ (326,150)	\$ 49,434	\$ (675,716)	
Total Direct Expenses	\$ 5,447,816	\$ 5,388,026	\$ (59,790)	\$ 5,790,066	\$ 342,250	
Indirect Expenses	\$ 3,526,402	\$ 3,526,402	\$ -	\$ 4,258,335	\$ 731,934	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 8,974,218	\$ 8,914,428	\$ (59,790)	\$ 10,048,401	\$ 1,074,184	
Change in Net Assets (=A-B)	\$ (408,046)	\$ (348,256)	\$ 59,790	\$ (393,574)	\$ 14,472	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 56,727	\$ 56,727	\$ -	\$ 71,199	\$ 14,472	
TOTAL BUDGET (=B+C)	\$ 9,030,944	\$ 8,971,155	\$ (59,790)	\$ 10,119,600	\$ 1,088,656	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (464,773)	\$ (404,983)	\$ 59,790	\$ (464,773)	\$ 0	

Table A - 4: Compliance Monitoring and Enforcement and Organization Registration and Certification Budget Detail

Reliability Assessment and Performance Analysis Program

Reliability Assessment and Performance Analysis Program Resources			
(in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	5.44	6.45	1.01
Direct Expenses	\$2,312,599	\$2,624,913	\$312,314
Indirect Expenses	\$986,305	\$1,100,852	\$114,548
Other Non-Operating Expenses	\$0	\$0	\$0
Fixed Asset Additions	\$15,866	\$18,406	\$2,540
Total Funding Requirement	\$3,314,770	\$3,744,171	\$429,401

Table A - 5: Reliability Assessments and Performance Analysis (RAPA) Budget

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.

2022 Key Assumptions

- 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 outages 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.

2022 Goals and Key Deliverables

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 2022 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 2022. 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 2022 Goals and Deliverables

- Facilitate the completion of the steady state and dynamic simulation base case data compilation and development for the 2022 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 2022 Goals and Deliverables

- Determine an appropriate topic of focus for the 2022 ERAG Assessment. In recent years, ERAG has conducted peer reviews on select topics in lieu of conducting assessments. Conduct the 2022 ERAG Assessment and prepare any associated documentation.
- Coordinate Assessment efforts with the NERC Reliability Assessment and Performance Analysis (RAPA) 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. One NPCC Exclusion Exception Request is due for recertification in 2022. There are currently no pending or ongoing Exception Request that are expected to extend into 2022. However, Exception Requests are mainly entity driven and can be submitted at any time. NPCC resources, supplemented by contractor support would be utilized to process and evaluate submitted Exception Requests.

Furthermore, NPCC Staff may be requested to participate on other Regions' Technical Review Panel as part of the NERC Rules of Procedure, Appendix 5C – Procedure for Requesting and Receiving an Exception from the Application of the NERC Definition of Bulk Electric System.

2022 NERC Activities

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

- Reliability and Security Technical Committee (RSTC)
- Inverter-Based Resource Performance Working Group (IRPWG)
- Performance Analysis Subcommittee (PAS)
 - Demand Response Availability Data System User Group (DADSUG)
 - Generating Availability Data System User Group (GADSUG)
 - Misoperation Information Data Analysis System User Group (MIDASUG)
 - Transmission Availability Data System User Group (TADSUG)
- Reliability Assessment Subcommittee (RAS)
 - Probabilistic Assessment Working Group (PAWG)
- Security Integration and Technology Enablement Subcommittee (SITES)
- Load Modeling Working Group (LMWG)
- System Protection and Control Working Group (SPCWG)
- Synchronized Measurement Working Group (SMWG)
- System Planning Impacts from Distributed Energy Resources Working Group (SPIDERWG)
 - SPIDERWG Studies Sub-Group
 - SPIDERWG Modeling Sub-Group
 - SPIDERWG Coordination Sub-Group
 - SPIDERWG Verification Sub-Group
- Electric-Gas Working Group (EGWG)
- Energy Reliability Assessment Task Force (ERATF)
- Electro Magnetic Pulse Task Force (EMPTF)

- 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 Enterprise Transformational activities

- ERO Proven Test Laboratories

ERO – Operations Leadership Team (OLT) 2022 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 Steering Group; and,
- Other activities as directed by the ERO Executive Committee.

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 2022 Goals and Deliverables

- Coordinate the development of additional Criteria as necessary and track any new and developing standards through the Regional Standards Committee (RSC).
- Continue Directory No. 1 review as per the recommendation from the Strategic Review of NPCC Regional Reliability Criteria.
- Oversee the Directory No. 1 Implementation Plan (Dated: September 30, 2015).
- Conduct through the CP-8 Working Group the seasonal reliability assessments and review the load shape assumption used in NPCC Multi-Area Probabilistic Reliability Assessments.
- Conduct through the CP-8 Working Group an update to the NPCC Interregional Long-Range Adequacy Overview and the NERC Probabilistic Assessment Study of the NPCC Region.
- Evaluate and approve Area Transmission Reviews.
- Evaluate and approve Area Reviews of Resource Adequacy.
- Coordinate, monitor, review, and make recommendations on the retirement of existing in-service Remedial Action Schemes (RAS); and the implementation of proposed new or modified RAS.
- Support related reliability activities including consideration of any requests for sub-regional assessments or NPCC's identification of the necessity for such assessments consistent with NERC Rules of Procedure section 805, associated with implementation of regional initiatives.
- Review the load shape assumption through the CP-8 Working Group used in NPCC Multi-Area Probabilistic Reliability Assessments.
- Monitor and review the development of NERC Standards through the RSC.

- Monitor the reliability issues associated with fuel supply, demand resources, energy efficiency, and conservation methods including all intermittent renewable resources, including distributed energy resources and make recommendations to NPCC as appropriate.
- Support the NPCC Regional Standards Committee ("RSC") as required.
- Members keep TFCP informed on studies and developments with neighboring systems which might impact NPCC.
- Monitor the actions of applicable NERC committees as a standing agenda item at the face-to-face TFCP meeting in the areas of resource and transmission adequacy, system protection and system control to determine their impact on the NPCC and any potential adjustments to Criteria.
- Lead the NPCC Task Forces in the on-going effort of reviewing and revising the NPCC Glossary of Terms (established in 2011 after NPCC Document A-7 was retired).
- Review Events Analysis Lessons Learned using the Events Analysis discussion/review template.
- Facilitate Wide-Area Planning through participation in regional activities and coordinate inter-Area reliability analysis.

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 2022 Goals and Deliverables

- Review and recommend approval of Area Transmission Reviews.
- Review and classify new and modified Remedial Action Schemes.
- Review and recommend approval of changes to the NPCC list of bulk power system elements.
- Review and process Multiple Circuit Tower exclusions.
- 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.

- Develop voluntary guidelines for meeting Requirements of NERC Standard TPL-007 on Geomagnetic Disturbances.

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 2022 Goals and Deliverables

- Assess proposed protection systems and remedial action schemes.
- 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 bulk electric system protection related NERC Reliability Standards.
- Manage the misoperations review and analysis of transmission and generation protection systems.
- Monitor the NPCC metric on protection system Entity Misoperation Risk Index Score (Entity MRI Score) to enhance NPCC ability to analyze the risks associated with misoperations and to encourage entities to take appropriate actions and mitigation plans to further reduce misoperation.
- 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.
- Discuss NERC CIP standards and its impact on protection system design and operation.
- Discussion on how TOs are complying with PRC-026 and PRC-027 standards.

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 2022 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.”
- Review a biennial summary of operating tool failures and lessons learned for the preceding study period.
- 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.

-
- Coordinate system awareness among NPCC RCs through periodic conference calls. This includes the existing emergency preparedness, NPCC weekly and daily system operator conference calls.
 - Monitor the trends and impacts of the changing resource mix and the effects of the proliferation of the new resources (intermittent, DER, batteries, hybrid resources, etc.) on real-time operations, including energy sufficiency issues, behavior during and impacts on recovery and restoration plans, to support reliable integration of regulatory decarbonization goals and evaluate opportunities for a coordinated approach to enhancing system resilience and addressing energy sufficiency concerns.
 - 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.
 - Consider, evaluate, and identify risk mitigating actions, tools and processes for various aspects of security (cyber and physical) in operations, and restoration activities.

NPCC estimates that it will expend 21% of its resources on Reliability Assessment and Performance Analysis activities.

Resource Requirements

Personnel

- Increase of one FTE to develop data analytics and visualization tools, to support the NERC ERO Analytical Community of Excellence initiative and to support the Reliability and Security Technical Committee's Energy Reliability Assessment Task Force on behalf of NPCC.

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 held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

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 2022 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						
2021 Budget & Projection, and 2022 Budget						
Reliability Assessment and Performance Analysis						
	2021	2021	Variance	2022	Variance	
	Budget	Projection	2021 Projection v 2021 Budget Over(Under)	Budget	2022 Budget v 2021 Budget Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ 3,280,822	\$ 3,280,822	\$ -	\$ 3,710,864	\$ 430,043	
Penalty Sanctions	33,948	33,948	-	33,307	(642)	
Total ERO Funding	\$ 3,314,770	\$ 3,314,770	\$ -	\$ 3,744,171	\$ 429,401	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	-	-	-	-	-	
Total Funding (A)	\$ 3,314,770	\$ 3,314,770	\$ -	\$ 3,744,171	\$ 429,401	
Expenses						
Personnel Expenses						
Salaries	\$ 1,017,371	\$ 1,120,023	\$ 102,652	\$ 1,232,794	\$ 215,423	
Payroll Taxes	64,068	71,282	7,214	79,765	15,697	
Benefits	280,566	322,822	42,256	332,187	51,621	
Retirement Costs	110,034	120,694	10,660	133,166	23,133	
Total Personnel Expenses	\$ 1,472,039	\$ 1,634,822	\$ 162,782	\$ 1,777,913	\$ 305,873	
Meeting Expenses						
Meetings & Conference Calls	\$ 17,600	\$ 8,800	\$ (8,800)	\$ 17,250	\$ (350)	
Travel	172,960	86,480	(86,480)	129,720	(43,240)	
Total Meeting Expenses	\$ 190,560	\$ 95,280	\$ (95,280)	\$ 146,970	\$ (43,590)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 647,000	\$ 647,000	\$ -	\$ 692,000	\$ 45,000	
Office Rent	-	-	-	-	-	
Office Costs	3,000	3,000	-	8,030	5,030	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Total Operating Expenses, excluding Depreciation	\$ 650,000	\$ 650,000	\$ -	\$ 700,030	\$ 50,030	
Total Direct Expenses	\$ 2,312,599	\$ 2,380,102	\$ 67,502	\$ 2,624,913	\$ 312,314	
Indirect Expenses	\$ 986,305	\$ 986,305	\$ -	\$ 1,100,852	\$ 114,548	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 3,298,904	\$ 3,366,406	\$ 67,502	\$ 3,725,765	\$ 426,861	
Change in Net Assets (=A-B)	\$ 15,866	\$ (51,636)	\$ (67,502)	\$ 18,406	\$ 2,540	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 15,866	15,866	\$ -	\$ 18,406	\$ 2,540	
TOTAL BUDGET (=B+C)	\$ 3,314,770	\$ 3,382,272	\$ 67,502	\$ 3,744,171	\$ 429,401	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ 0	(67,502)	\$ (67,502)	\$ 0	\$ 0	

Table A - 6: Reliability Assessments and Performance Analysis (RAPA) Budget Detail

Training, Education, and Operator Certification Program

Training, Education, and Operator Certification Program Resources			
(in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	0.10	0.10	0.00
Direct Expenses	\$223,835	\$155,578	(\$68,257)
Indirect Expenses	\$18,131	\$17,067	(\$1,063)
Other Non-Operating Expenses	\$0	\$0	\$0
Inc(Dec) in Fixed Assets	\$292	\$285	(\$6)
Total Funding Requirement	\$242,257	\$172,931	(\$69,326)

Table A - 7: Training, Education, and Operator Certification Budget

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.

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) System Operators COVID-19 Pandemic Operations, 2) human performance related to system operations, 3) COVID-19 Impact to System Load, 4) cybersecurity threats and system operator concerns - Lessons Learned: Ukraine Cyberattack, 5) system restoration approaches and tie-ins to neighboring systems, including hot line restoration and 6) overview of NPCC and preview of the 2020 NERC Long-Term Reliability Assessment. Usually, control center or other pertinent 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.

2022 Key Assumptions

- 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.
- Provide the Regional perspective and support with appropriate NPCC Training and Education staff participation on selected NERC Committees, including the ERO Enterprise and NATF Electric Power Human Performance Improvement Symposium (EPHPIS) Organizing Committee.

Activities below further support the NPCC 2021-2024 Strategic Plan through targeted discussion of operational impacts and considerations in the specific Focus Areas, including:

- System resilience and critical infrastructure interdependencies,
- Reliably Integrating the Resources brought forward by Societal De-carbonization Objectives, including DERs, VERs, energy storage, etc.; and,
- 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 “tabletop 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 one in-person and two virtual Standards and Compliance workshops in 2022, 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).

In addition to the Standards and Compliance workshops, NPCC regularly conducts System Operators seminars, specifically designed with tabletop 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 North American Transmission Forum (NATF) and is charged with executing the administrative framework for organizing, planning and implementing the event and is collaborative in nature. EPHPIS is a continent-wide collaboration between the ERO Enterprise and the NATF focused on human performance improvement for the bulk power system (BPS).

2022 Goals and Key Deliverables

- Prepare and conduct the 2022 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.
- 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.

NPCC estimates that it will expend 1% of its resources on training, education, and operator certification activities.

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 held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022. NPCC began holding virtual Standards and Compliance Workshops during 2020 due to the COVID-19 pandemic. Based on high levels of participation and positive feedback on the virtual workshop format, NPCC plans to hold two virtual workshops and one in-person workshop in 2022.

Training, Education, and Operator Certification Program

Funding sources and related expenses for the training, education, and operator certification section of the 2022 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						
2021 Budget & Projection, and 2022 Budget						
Training, Education, and Operator Certification						
	2021	2021	Variance	2022	Variance	
	Budget	Projection	2021 Projection	Budget	2022 Budget	v 2021 Budget
			v 2021 Budget			v 2021 Budget
			Over(Under)			Over(Under)
Funding						
ERO Funding						
ERO Assessments	\$ 174,133	\$ 174,133	\$ -	\$ 138,664	\$ (35,469)	
Penalty Sanctions	624	624	-	516	(108)	
Total ERO Funding	\$ 174,757	\$ 174,757	\$ -	\$ 139,181	\$ (35,576)	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	67,500	-	(67,500)	33,750	(33,750)	
Interest & Investment Income	-	-	-	-	-	
Total Funding (A)	\$ 242,257	\$ 174,757	\$ (67,500)	\$ 172,931	\$ (69,326)	
Expenses						
Personnel Expenses						
Salaries	\$ 18,352	\$ 23,909	\$ 5,558	\$ 23,642	\$ 5,290	
Payroll Taxes	1,068	1,518	450	1,471	403	
Benefits	6,091	6,863	771	6,283	192	
Retirement Costs	2,324	2,462	138	2,434	110	
Total Personnel Expenses	\$ 27,835	\$ 34,752	\$ 6,917	\$ 33,830	\$ 5,995	
Meeting Expenses						
Meetings & Conference Calls	\$ 184,000	\$ 28,000	\$ (156,000)	\$ 112,400	\$ (71,600)	
Travel	12,000	6,000	(6,000)	9,000	(3,000)	
Total Meeting Expenses	\$ 196,000	\$ 34,000	\$ (162,000)	\$ 121,400	\$ (74,600)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	348	348	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Total Operating Expenses, excluding Depreciation	\$ -	\$ -	\$ -	\$ 348	\$ 348	
Total Direct Expenses	\$ 223,835	\$ 68,752	\$ (155,083)	\$ 155,578	\$ (68,257)	
Indirect Expenses	\$ 18,131	\$ 18,131	\$ -	\$ 17,067	\$ (1,063)	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 241,965	\$ 86,883	\$ (155,083)	\$ 172,645	\$ (69,320)	
Change in Net Assets (=A-B)	\$ 292	\$ 87,875	\$ 87,583	\$ 285	\$ (6)	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 292	\$ 292	\$ -	\$ 285	\$ (6)	
TOTAL BUDGET (=B+C)	\$ 242,257	\$ 87,174	\$ (155,083)	\$ 172,931	\$ (69,326)	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (0)	\$ 87,583	\$ 87,583	\$ (0)	\$ 0	

Table A - 8: Training, Education, and Operator Certification Budget Detail

Situation Awareness and Infrastructure Security Program

Situation Awareness and Infrastructure Security Program Resources			
(in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	5.40	5.60	0.20
Direct Expenses	\$1,411,680	\$1,489,849	\$78,169
Indirect Expenses	\$979,052	\$955,779	(\$23,274)
Other Non-Operating Expenses	\$0	\$0	\$0
Fixed Asset Additions	\$15,749	\$15,980	\$231
Total Funding Requirement	\$2,406,482	\$2,461,608	\$55,126

Table A - 9: Situation Awareness and Infrastructure Security Budget

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 Coordinators 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.

2022 Key Assumptions

- 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.
- 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.

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)

Activities below further support the NPCC 2021-2024 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
 - 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; and,
 - Identifying and collaboratively advancing better practice approaches to mitigating cyber and physical security threats.

The monitoring of Lessons Learned will continue to be a major focus of NERC and NPCC in 2022, including:

- Continued reporting and processing of qualifying events in the voluntary Event Analysis Program (EAP);
- Consideration and collaboration with E-ISAC on analysis process of security related events, including notifications related to CIP-008-6 – Cyber Security – Incident Reporting and Response Planning; and,
- Analysis of non-EAP qualifying events, 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 most CIP Standards
 - CIP-012 – development and implementation of the new version of the Standard (version 2)
 - CIP-008 – assist in new metrics and follow up on NPCC incidents.
 - Coordinate TFIST activities with:
 - NERC’s Security Integration and Technology Enablement Subcommittee (SITES),
 - NERC’s Security Working Group (SWG),
 - NERC’s Evidence Request Tool team
 - IST-4 WG – update CIP-012 version 1 implementation suggestions for version 2
 - Grid Ex VI - implement recommendations.
 - BES Cyber Systems Information (BCSI) - CIP updates approval and registered entities’ implementation
 - IST-2 WG
 - Annual report on previous year’s monthly tests of cross-border emergency telecommunications
 - Monthly tests of cross-border emergency telecommunications
 - Development of the Ring Down NPCC Guideline (Type “B”) Document
 - Implementation of applicable findings and recommendations from NPCC’s 2021 telecommunications during restoration goal
 - Activities pertaining to the new CIP-002 version of the standard.

- 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 ERO Enterprise 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.

2022 Goals and Key Deliverables

Situation Awareness 2022 Goals and Key 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.

- Review and implementation of applicable recommendations and lessons learned from the planning and distributed play activities of the GridEx VI wide-area exercise.
 - Participation in the ERO Enterprise-wide SA 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), including such activities as:
 - NERC Bulk Power Situational Awareness calls
 - Participation in the ERO Enterprise Crisis Action Plan (CAP) tabletop exercises and enhancements to the CAP processes
 - Participation in the ERO Enterprise CAP activations
 - Support implementation and activities of NPCC’s Emergency Communications Plan.
- 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 Regional Entities and NERC.

Infrastructure Security 2022 Goals and Deliverables

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 Reliability and Security Technical Committee (RSTC) and its subgroups; 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). Security outreach activities will include development of periodic Security Bulletins, presenting to TFIST, development/promotion of best practice, expand interaction & engagement with the E-ISAC, and perform Cyber Outreach sessions to assess entity implementation of CIS Critical Security Control.

Furthermore, NPCC’s Security Outreach program will support ERO Enterprise activities aimed at addressing known and emerging security risks to strengthen and enhance industry’ security posture through active participation and engagement in the ERO Enterprise and industry activities, including:

- ERO Enterprise Security Initiative - with focus on the development, coordination and promotion of physical and cyber security efforts, including sharing of best practices; development of security training and participation in regional and continent-wide security exercises; and supporting NERC, the Regions and industry on matters related to the interface between reliability and security, including providing support for the implementation of risk mitigation priorities recommended by the Reliability Issues Steering Committee (RISC). These efforts will bolster the ongoing security efforts of industry and the ERO Enterprise as a whole.
- Reliability and Security Technical Committee’s Security Integration and Technology Enablement Subcommittee activities

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 2022 Goals and Deliverables:

- Monitor the reliable implementation of the Cyber Security Standards.
- Monitor the Homeland Security Information Network (HSIN), E- ISAC, NERC Alerts, Canadian Information Sharing and North American Transmission Forum and share information with CO-8.
- 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 and Notice of Inquiry.
- 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 NERC GridEx VI activities and after-action report development and review and of pertinent recommendations and lessons learned of the exercise.
- Review infrastructure security & technologies and provide recommendations to RCC to enhance physical and cyber security in compliance with NERC guidelines/standards.
- Provide recommendations to RCC 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 Entities 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.
- Physical Security Working Group shall exchange information regarding approaches to physical security that will enhance the reliability and resiliency of the BPS and further address any physical security threats that could challenge efficient operation of the BPS. The Physical Security Working Group will also support TFIST in their work on issues related to Physical Security.
- 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, including Bulk Electric System cyber security topics that span one or more Task Forces or Working Groups.

NPCC estimates that it will expend 15% of its resources on situation awareness and infrastructure security activities.

Resource Requirements

Personnel

- Increase of 0.20 FTE to support security outreach.

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 held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

Consultants and Contracts

- Decrease in consultants and contracts based on planned utilization.

Situation Awareness and Infrastructure Security Program

Funding sources and related expenses for the situation awareness and infrastructure security section of the 2022 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						
2021 Budget & Projection, and 2022 Budget						
Situation Awareness and Infrastructure Security						
	2021	2021	Variance	2022	Variance	
	Budget	Projection	2021 Projection	Budget	2022 Budget	
			v 2021 Budget		v 2021 Budget	
			Over(Under)		Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ 2,372,783	\$ 2,372,783	\$ -	\$ 2,432,690	\$ 59,907	
Penalty Sanctions	33,699	33,699	-	28,918	(4,781)	
Total ERO Funding	\$ 2,406,482	\$ 2,406,482	\$ -	\$ 2,461,608	\$ 55,126	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	-	-	-	-	-	
Total Funding (A)	\$ 2,406,482	\$ 2,406,482	\$ -	\$ 2,461,608	\$ 55,126	
Expenses						
Personnel Expenses						
Salaries	\$ 885,454	\$ 994,972	\$ 109,519	\$ 1,009,298	\$ 123,844	
Payroll Taxes	60,595	68,001	7,405	68,007	7,412	
Benefits	233,918	204,051	(29,867)	202,785	(31,133)	
Retirement Costs	96,873	108,460	11,587	110,066	13,193	
Total Personnel Expenses	\$ 1,276,840	\$ 1,375,484	\$ 98,644	\$ 1,390,155	\$ 113,316	
Meeting Expenses						
Meetings & Conference Calls	\$ 6,400	\$ 3,200	\$ (3,200)	\$ 4,800	\$ (1,600)	
Travel	75,440	37,720	(37,720)	56,580	(18,860)	
Total Meeting Expenses	\$ 81,840	\$ 40,920	\$ (40,920)	\$ 61,380	\$ (20,460)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 50,000	\$ 30,000	\$ (20,000)	\$ 30,000	\$ (20,000)	
Office Rent	-	-	-	-	-	
Office Costs	3,000	3,000	-	8,313	5,313	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Total Operating Expenses, excluding Depreciation	\$ 53,000	\$ 33,000	\$ (20,000)	\$ 38,313	\$ (14,687)	
Total Direct Expenses	\$ 1,411,680	\$ 1,449,404	\$ 37,724	\$ 1,489,849	\$ 78,169	
Indirect Expenses	\$ 979,052	\$ 979,052	\$ -	\$ 955,779	\$ (23,274)	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 2,390,732	\$ 2,428,457	\$ 37,724	\$ 2,445,627	\$ 54,895	
Change in Net Assets (=A-B)	\$ 15,749	\$ (21,975)	\$ (37,724)	\$ 15,980	\$ 231	
Total Funding (A) Requirement	\$ 2,374,983	\$ 2,374,983	\$ 37,724	\$ 2,429,647	\$ 54,664	
Fixed Asset Additions, excluding Right of Use Assets (C)	15,749	15,749	-	15,980	231	
TOTAL BUDGET (=B+C)	2,406,482	2,444,206	37,724	2,461,608	55,126	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (0)	\$ (37,724)	\$ (37,724)	\$ -	\$ (0)	

Table A - 10: Situation Awareness and Infrastructure Security Budget Detail

Administrative Services

Administrative Services Program Resources						
(in whole dollars)						
	Direct Expenses			FTEs		
	2021 Budget	2022 Budget	Increase (Decrease)	2021 Budget	2022 Budget	Increase (Decrease)
Technical Committees and Members Forum	\$35,729	\$43,474	\$7,746	0.10	0.10	0.00
General and Administrative	\$3,874,497	\$3,367,214	(\$507,283)	2.73	2.50	-0.23
Legal and Regulatory	\$748,924	\$825,477	\$76,553	2.00	2.00	0.00
Information Technology	\$1,341,144	\$2,015,000	\$673,857	2.55	3.85	1.30
Human Resources	\$67,066	\$76,331	\$9,265	0.50	0.50	0.00
Finance and Accounting	\$735,648	\$789,852	\$54,204	2.00	2.00	0.00
Total Administrative Services ¹	\$6,803,007	\$7,117,349	\$314,342	9.88	10.95	1.07

NPCC's 2022 Administrative Services Direct Expenses and Fixed Assets total \$7,117,349 of which \$358,417 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 2022 statutory budget are \$6,758,932 which is an increase of \$343,920 from the 2021 budget of \$6,415,012.

Table A - 11: Administrative Services Budget

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 2022 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 2021 Budget & Projection, and 2022 Budget						
ADMINISTRATIVE SERVICES						
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ (75,140)	\$ (75,140)	\$ -	\$ (853,165)	\$ (778,025)	
Penalty Sanctions	-	-	-	-	-	
Total ERO Funding	\$ (75,140)	\$ (75,140)	\$ -	\$ (853,165)	\$ (778,025)	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	56,264	15,275	(40,989)	28,465	(27,799)	
Total Funding (A)	\$ (18,876)	\$ (59,865)	\$ (40,989)	\$ (824,700)	\$ (805,824)	
Expenses						
Personnel Expenses						
Salaries	\$ 2,642,472	\$ 2,443,800	\$ (198,672)	\$ 2,544,187	\$ (98,285)	
Payroll Taxes	123,675	135,466	11,791	135,739	12,063	
Benefits	554,948	607,868	52,920	590,851	35,903	
Retirement Costs	328,620	284,684	(43,936)	330,517	1,897	
Total Personnel Expenses	\$ 3,649,716	\$ 3,471,819	\$ (177,897)	\$ 3,601,294	\$ (48,422)	
Meeting Expenses						
Meetings & Conference Calls	\$ 110,400	\$ 25,200	\$ (85,200)	\$ 89,150	\$ (21,250)	
Travel	125,680	26,840	(98,840)	94,260	(31,420)	
Total Meeting Expenses	\$ 236,080	\$ 52,040	\$ (184,040)	\$ 183,410	\$ (52,670)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 85,650	\$ 85,650	\$ -	\$ 65,650	\$ (20,000)	
Office Rent	870,141	870,141	-	906,141	36,000	
Office Costs	811,420	1,055,420	244,000	1,181,703	370,283	
Professional Services	1,005,000	1,005,000	-	1,017,000	12,000	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	51,000	51,000	-	51,000	-	
Total Operating Expenses, excluding Depreciation	\$ 2,823,211	\$ 3,067,211	\$ 244,000	\$ 3,221,494	\$ 398,283	
Total Direct Expenses	\$ 6,709,007	\$ 6,591,070	\$ (117,937)	\$ 7,006,199	\$ 297,192	
Indirect Expenses	\$ (6,231,487)	\$ (6,231,487)	\$ -	\$ (7,006,199)	\$ (774,712)	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 477,520	\$ 359,583	\$ (117,937)	\$ 0	\$ (477,520)	
Change in Net Assets (=A-B)	\$ (496,396)	\$ (419,448)	\$ 76,947	\$ (824,700)	\$ (328,304)	
Total Funding (A) Requirement	\$ (323,075)	\$ (323,075)	\$ (76,947)	\$ (323,075)	\$ -	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ -	\$ 22,000	\$ 22,000	\$ -	\$ -	
TOTAL BUDGET (=B+C)	\$ 477,520	\$ 381,583	\$ (95,937)	\$ 0	\$ (477,520)	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (496,396)	\$ (441,448)	\$ 54,947	\$ (824,700)	\$ (328,304)	

Table A - 12: Administrative Services Budget Detail

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.

2022 Key Assumptions

- NPCC's standing committee and subgroup structure for effective stakeholder involvement will continue in 2022.
- 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 2022.
- NPCC will continue to invest in technology and innovation to allow efficient collaboration on technical issues related to reliability.

2022 Goals and Deliverables

- The 2022 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 an annual Media Release Event for the Summer NPCC Reliability Assessment
 - Preparing other NPCC media releases and statements on an as-needed basis
 - Responding to media inquiries (and coordinating responses)
 - Participating in the ERO Communications Group's 2021 Work Plan activities, including:
 - Information sharing/education of key audiences/stakeholders to further ERO Enterprise's mission;
 - Coordination/planning for outreach communications and crisis/media relations; and,
 - Consistent/coordinated outreach to support public and regulatory confidence of ERO Enterprise and its activities.
 - Periodic update of NPCC's Emergency Communications Plan (A Guide for Media Communications During Emergencies).

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 held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

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

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 held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

Legal and Regulatory

Program Scope and Functional Description

To ensure and maintain independence and objectivity consistent with ERO Enterprise value drivers, NPCC's in-house professional services develop corporate policies and procedures, 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 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. NPCC's professional legal services provide counsel and advise to the President and CEO, Board of Directors, Board Committees, officers, 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. 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.

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.

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 held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

Professional Services

- Reduction in professional services as a result of increased utilization of in-house resources in lieu of outside counsel.

Information Technology

Program Scope and Functional Description

NPCC's Information Technology services ensure information assets and the environment in which they operate are resilient, 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 servers are unavailable.

NPCC partners with the ERO to implement, operate and maintain software tools supporting common enterprise-wide operations and leverages 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 2022 Business Plan and Budget assumes agreed upon ERO Enterprise applications will be available and includes only NPCC costs for Region specific support needs.

2022 Key Assumptions

- Maintain the Compliance Portal, while transitioning to the ERO Enterprise CMEP data application (Align).
- Support the migration to the new Align tool as its releases are implemented.
- Participate in the design, planning and implementation of ERO Centralized Applications to improve security posture.
- Implement and enhance security tools and measures to strengthen NPCC's security monitoring and governance activities.
- Migrate NPCC network architecture to the cloud.
- Utilize secure third-party hosting centers for the NPCC website and NPCC network.
- Use IT consulting services and support for project-based work to augment staff skill sets instead of increasing headcount for the support of NPCC's website and cloud network environments.
- Replace computer equipment on a three-year refresh cycle, servers every four years, and replace network equipment every five years.
- Support the ERO Enterprise IT Strategy and continue working collaboratively to minimize duplication of effort and investments and improve operational efficiency.
- Increase knowledge of industry best practices for security, data management, and system administration.

- One new cybersecurity specialist is added to help bolster and formalize NPCC’s internal security program and posture due to the critical nature of some of NPCC’s data and increasing cyber security risks.

2022 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:

- Provide IT and security support to all NPCC’s operations, including: IT budget; infrastructure; service support; service design and; delivery service transition; and hardware and network security in a secure and efficient manner.
- Continue to assess NPCC’s security controls and implement and align to security control frameworks.
- Enhance NPCC’s Security Awareness Program that addresses, through education and training, social media, phishing, and other vulnerabilities that pose threats to NPCC systems.
- Assist business staff with enhancements requests and other IT-related project requirements and prioritize and oversee all IT or security-related projects.
- Coordinate and share best practices with other Regional Entities and NERC.
- Develop knowledge of systems through training and experience to reduce the reliance on external vendors.
- Use third-party security services to evaluate and test NPCC’s security posture, while fostering maturity in NPCC’s Internal Controls Program and security posture.
- Maintain the appropriate number of employees to oversee the IT Strategy, policies and procedures, service, and performance, budget and vendor management. Cross-train employees to serve as backups and mentors to each other.
- Continue collaborating with the ERO Enterprise on the configuration and implementation of the data loss prevention initiative.
- 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.
- Train and support NPCC staff on software and applications.
- 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

Personnel

- Increase of 1.30 FTEs (including the re-allocation of an FTE formerly partially allocated to IT and the addition of one FTE partially allocated to SAIS) to support cybersecurity and infrastructure enhancements.

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 held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

Office Costs

- Increase in licensing and software expenses for the identification and reduction of cyber and physical security risks and infrastructure enhancements.

Fixed Assets

- Capital expenditures planned for 2022 include computer equipment for new hires 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 held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

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.

2022 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 held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

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 2020 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 2020 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. Penalty monies received from NPCC registered entities within the U.S. 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 has been enhanced to better stabilize assessments. NPCC applies a rolling seven-year compliance cost average to total compliance program expenses for the current budget year. For each of the seven years, costs attributed to CORC Fundamentals (CF), are allocated between the BAAs in the United States and Canada on a NEL basis.

Audits and Investigations (AI) related costs 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.

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.

The seven-year average allocation percentage of total combined compliance costs for each BAA is then applied to the total compliance program expenses for the current budget year in order to mitigate fluctuations in assessments from year to year.

Penalty monies received from NPCC registered entities within the U.S. 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

2022 Business Plan and Budget

Section B – Supplemental Financial Information

Table B-1 Reserve Balance

Working Capital and Operating Reserve Analysis 2021-2022					
REGIONAL ENTITY DIVISION					
	Total Reserve	Working Capital	Operating Reserve	Business Continuity	Assessment Stabilization
Beginning Total Reserve, December 31, 2020	16,815,904	4,013,955	1,369,999	662,881	769,069
Plus: 2021 ERO Funding (from LSEs or designees)	15,154,584	15,154,584			
Plus: 2021 Other funding sources	15,275	15,275			
Plus: Penalties collected	0				0
Approved 2021 Penalties released to offset U.S. assessments	0	201,132			(201,132)
Less: 2021 Projected expenses & capital expenditures	(16,245,326)	(15,993,808)		(251,520)	
Remaining Business Continuity Reserves released into Working Capital	0	411,361		(411,361)	
Projected Total Reserve, December 31, 2021	5,740,435	3,802,499	1,369,999	0	567,937
Desired Total Reserve, December 31, 2022	4,249,830	2,427,656 ¹	1,455,370 ²	0 ³	366,805
Less: Projected Total Reserve, December 31, 2021	(5,740,435)	(3,802,499)	(1,369,999)	0	(567,937)
Increase(decrease) in assessments to achieve desired Total Reserve	(1,490,605)	(1,374,843)	85,370	0	(201,132)
2022 Expenses and Capital Expenditures	17,465,133				
Less: Penalty Sanctions (Applied to U.S. Only) ⁴	(201,132)				
Less: Other Funding Sources	(62,215)				
Less: Release of Business Continuity Reserve Funds ³	0				
Adjustment to Operating Reserve to achieve desired Total Reserve balance ²	85,370				
Adjustment to Working Capital to achieve desired Total Reserve balance ¹	(1,374,843)				
2022 Assessment	15,912,314				

¹ Working Capital within a range from 8.33% to 25.00% of Budget. \$2,427,656 represents 13.90% of the 2022 budget of \$17,465,133

² Operating Reserve equal to 8.33% of Budget. \$1,455,370 represents 8.33% of the 2022 budget of \$17,465,133

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

⁴ Represents amount applied to reduce 2022 assessments. Balance of collections July 1, 2020 through June 30, 2021 retained for assessment stabilization purposes.

⁵ Assessment Stabilization Reserve balance was \$604,000 at June 30, 2020. Penalty Sanctions totaling \$165,069 were collected July 1, 2020 through December 31, 2020.

Table B - 1: Working Capital Reserve Analysis

Explanation of Changes in Reserve Policy from Prior Year

There was no change to the existing Working Capital and Operating Reserve Policy. NPCC maintains an Assessment Stabilization Reserve (ASR) separate from the Working Capital and Operating Reserve. The purpose of the ASR is to enable penalty monies to be released in multiple budget years in order to avoid large fluctuations in assessments. NERC Rules of Procedure (ROP) § 1107.2 specifies that penalty monies received by NPCC during the 12 months ended June 30th are to be used in the subsequent budget year to offset assessments. Pursuant to ROP § 1107.4, exceptions or alternatives to this provision are allowed if approved by NERC and FERC. Therefore, pursuant to ROP § 1107.4, NERC and NPCC request that the Commission approve an exception to the requirement of ROP § 1107.2 that all penalties collected during the 12 months ended the previous June 30 be used to reduce NPCC's assessments in the following year, in order to allow NPCC to (i) deposit the \$165,069 of penalties collected during the 12 months ended June 30, 2021 into the ASR, and (ii) use \$201,132 of the penalty funds in the ASR to reduce its 2022 assessment. In future years, NPCC will specify the amount of penalty funds to be released and the amount of penalty funds to be retained to offset assessments in future years within its Business Plan and Budget to be approved annually by NPCC's Board of Directors, NERC and FERC. 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 search and succession related activities. CEO succession was completed during the first quarter of 2021 after which remaining BCR funds were released into Working Capital and Operating Reserves.

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 2022 Business Plan and Budget. All significant variances have been disclosed by program area in the preceding pages.

Penalty Sanctions

NPCC maintains an Assessment Stabilization Reserve (ASR). The purpose of the ASR is to enable penalty monies to be released in multiple budget years in order to avoid large fluctuations in assessments. NERC Rules of Procedure (ROP) § 1107.2 specifies that penalty monies received by NPCC during the 12 months ended June 30th are to be used in the subsequent budget year to offset assessments. Pursuant to ROP §1107.4, exceptions or alternatives to this provision are allowed if approved by NERC and FERC. Therefore, pursuant to ROP §1107.4, NERC and NPCC request that the Commission approve an exception to the requirement of ROP §1107.2 that all penalties collected during the 12 months ended the previous June 30 be used to reduce NPCC's assessments in the following year, in order to allow NPCC to (i) deposit the \$165,069 of penalties collected during the 12 months ended June 30, 2021 into the ASR, and (ii) use \$201,132 of these penalty funds to reduce its 2022 assessment. In future years, NPCC will specify the amount of penalty funds to be released and the amount of penalty funds to be retained to offset assessments in future years within Table B-1 Reserve Balance of its Business Plan and Budget, approved annually by NPCC's Board of Directors, NERC and FERC. Penalty sanctions collected during the 12 months ended June 30, 2021 are detailed below. Penalty monies released to offset assessments in 2022 and amounts retained to offset future assessments are detailed in the Assessment Stabilization column of Table B-1 Reserve Balance on the preceding page.

Allocation Method: U.S. penalty sanctions received are 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, 2021	Date Received	Amount Received
	8/17/2020	\$ 120,000
	8/18/2020	\$ 45,069
Total Penalties Received		\$ 165,069

Table B - 2: Penalty Sanctions Received

Table B-3 Supplemental Funding

Outside Funding Breakdown By Program (excluding ERO Assessments & Penalty Sanctions)	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget
Reliability Standards				
Total	\$ -	\$ -	\$ -	\$ -
Compliance Monitoring, Enforcement & Org. Registration				
	\$ -	\$ -	\$ -	\$ -
	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -
Reliability Assessment and Performance Analysis				
	\$ -	\$ -	\$ -	\$ -
	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -
Training and Education				
Workshops	\$ 67,500	\$ -	\$ 33,750	\$ (33,750)
Total	\$ 67,500	\$ -	\$ 33,750	\$ (33,750)
Situation Awareness and Infrastructure Security				
	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -
Technical Committees and Member Forums				
	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -
Administrative Services Programs				
Interest & Investment Income	\$ 56,264	\$ 15,275	\$ 28,465	\$ (27,799)
Total	\$ 56,264	\$ 15,275	\$ 28,465	\$ (27,799)
Total Outside Funding	\$ 123,764	\$ 15,275	\$ 62,215	\$ (61,549)

Table B - 3: Supplemental Funding

Explanation of Significant Variances

- NPCC began holding virtual Standards and Compliance Workshops during 2020 due to the COVID-19 pandemic. Based on high levels of participation and positive feedback on the virtual workshop format, NPCC plans to hold two virtual workshops and one in-person workshop in 2022.
- NPCC estimates interest & investment income of \$28,465 in 2022 from investment of reserves in a 100% U.S. Treasury Securities money market fund, which will offset 2022 assessments.

Table B-4 Personnel Expenses

Personnel Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Salaries					
Salary	\$ 7,794,119	\$ 8,265,656	\$ 9,032,408	\$ 1,238,289	15.9%
Employment Agency Fees	\$ 170,000	\$ 22,000	\$ 22,000	\$ (148,000)	-87.1%
Temporary Office Services	\$ 18,000	\$ 10,000	\$ 18,000	\$ -	0.0%
Total Salaries	\$ 7,982,119	\$ 8,297,656	\$ 9,072,408	\$ 1,090,289	13.7%
Total Payroll Taxes	\$ 485,768	\$ 546,254	\$ 595,815	\$ 110,048	22.7%
Benefits					
Education Reimbursement	\$ 16,000	\$ 20,000	\$ 20,000	\$ 4,000	25.0%
Training and Seminars	\$ 80,614	\$ 56,280	\$ 99,800	\$ 19,186	23.8%
Medical Insurance	\$ 1,293,060	\$ 1,343,477	\$ 1,349,590	\$ 56,530	4.4%
Life-LTD-STD Insurance	\$ 109,106	\$ 90,340	\$ 102,012	\$ (7,093)	-6.5%
Worker's Compensation	\$ 27,400	\$ 27,400	\$ 43,000	\$ 15,600	56.9%
Vacation	\$ 495,063	\$ 654,978	\$ 620,335	\$ 125,272	25.3%
Relocation	\$ -	\$ -	\$ -	\$ -	-
Total Benefits	\$ 2,021,243	\$ 2,192,475	\$ 2,234,738	\$ 213,494	10.6%
Retirement					
Pension Contribution	\$ -	\$ -	\$ -	\$ -	-
Employee Savings Plan	\$ 797,832	\$ 796,567	\$ 929,405	\$ 131,573	16.5%
Savings Admin	\$ 36,000	\$ 36,000	\$ 36,000	\$ -	0.0%
Deferred Compensation	\$ 76,000	\$ 76,000	\$ 76,000	\$ -	0.0%
Total Retirement	\$ 909,832	\$ 908,567	\$ 1,041,405	\$ 131,573	14.5%
Total Personnel Costs	\$ 11,398,962	\$ 11,944,952	\$ 12,944,366	\$ 1,545,404	13.6%
FTEs	42.11	46.11	49.90	7.79	8.2%
Cost per FTE					
Salaries	\$ 189,554	\$ 189,554	\$ 181,812	\$ (7,742)	-4.1%
Payroll Taxes	\$ 11,536	\$ 11,536	\$ 11,940	\$ 404	3.5%
Benefits	\$ 47,999	\$ 47,999	\$ 44,784	\$ (3,215)	-6.7%
Retirement	\$ 21,606	\$ 21,606	\$ 20,870	\$ (736)	-3.4%
Total Cost per FTE	\$ 270,695	\$ 270,695	\$ 259,406	\$ (11,289)	-4.2%

Table B - 4: Personnel Expenses

Explanation of Significant Variances

- Increase of 7.79 FTEs in 2022.
- Staff vacancy rate decreased from 6% in 2021 to 4% in 2022.
- Decrease in employment agency fees due to no executive search efforts planned for 2022.
- Medical insurance increase reflects a premium increase of 6%.
- Consolidation of benefits carriers resulted in lower Life-LTD-STD insurance premiums.

Table B-5 Meeting Expense

Meeting Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Meetings	\$ 325,400	\$ 64,200	\$ 221,100	\$ (104,300)	-32.1%
Travel	\$ 727,920	\$ 327,960	\$ 505,572	\$ (222,348)	-30.5%
Conference Calls	\$ 9,000	\$ 9,000	\$ 9,500	\$ 500	5.6%
Total Meeting Expenses	\$ 1,062,320	\$ 401,160	\$ 736,172	\$ (326,148)	-30.7%

Table B - 5: Meeting Expense

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 held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

Table B-6 Consultants and Contracts

Consultants	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 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	\$ -	\$ -	\$ -	\$ -	-
Legal and Regulatory	\$ -	\$ -	\$ -	\$ -	-
Information Technology	\$ -	\$ -	\$ -	\$ -	-
Human Resources	\$ -	\$ -	\$ -	\$ -	-
Accounting and Finance	\$ -	\$ -	\$ -	\$ -	-
Consultants Total	\$ -	\$ -	\$ -	\$ -	-
Contracts	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Reliability Standards	\$ 20,000	\$ 20,000	\$ 20,000	\$ -	0.0%
Compliance Enforcement and Organization Registration and Certification	\$ 707,150	\$ 381,000	\$ 32,000	\$ (675,150)	-95.5%
Reliability Assessment and Performance Analysis	\$ 647,000	\$ 647,000	\$ 692,000	\$ 45,000	7.0%
Training and Education	\$ -	\$ -	\$ -	\$ -	-
Situation Awareness and Infrastructure Security	\$ 50,000	\$ 30,000	\$ 30,000	\$ (20,000)	-40.0%
Member Forums	\$ -	\$ -	\$ -	\$ -	-
General and Administrative	\$ 80,000	\$ 80,000	\$ 60,000	\$ (20,000)	-25.0%
Legal and Regulatory	\$ -	\$ -	\$ -	\$ -	-
Information Technology	\$ -	\$ -	\$ -	\$ -	-
Human Resources	\$ -	\$ -	\$ -	\$ -	-
Accounting and Finance	\$ 5,650	\$ 5,650	\$ 5,650	\$ -	0.0%
Contracts Total	\$ 1,509,800	\$ 1,163,650	\$ 839,650	\$ (670,150)	-44.4%
Total Consultants and Contracts	\$ 1,509,800	\$ 1,163,650	\$ 839,650	\$ (670,150)	-44.4%

Table B - 6: Consultants and Contracts

Explanation of Significant Variances

- Decrease in CORC consultants and contracts is a result of adding five FTEs to increase in-house expertise.
- Ongoing effort to decrease the use of consultants and contractors when possible, as reflected in particular in the Situation Analysis and Infrastructure Security and General and Administrative budgets.

Table B-7 Office Rent

Office Rent	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Office Rent	\$ 650,000	\$ 650,000	\$ 650,000	\$ -	0.0%
Utilities	\$ 47,000	\$ 47,000	\$ 33,000	\$ (14,000)	-29.8%
Maintenance	\$ 45,000	\$ 45,000	\$ 45,000	\$ -	0.0%
Security	\$ 3,141	\$ 3,141	\$ 3,141	\$ -	0.0%
Real Estate Taxes	\$ 125,000	\$ 125,000	\$ 175,000	\$ 50,000	40.0%
Total Office Rent	\$ 870,141	\$ 870,141	\$ 906,141	\$ 36,000	4.1%

Table B - 7: Office Rent

Explanation of Significant Variances

- Decrease in utilities based on recent actual expenses.
- Increase in real estate taxes based on historical actual expenses.

Table B-8 Office Costs

Office Costs	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Telephone	\$ 88,720	\$ 88,720	\$ 100,200	\$ 11,480	12.9%
Internet Expense	\$ 70,500	\$ 70,500	\$ 85,351	\$ 14,851	21.1%
Office Supplies	\$ 28,000	\$ 28,000	\$ 15,000	\$ (13,000)	-46.4%
Computer Supplies and Maintenance	\$ 576,000	\$ 820,000	\$ 945,000	\$ 369,000	64.1%
Subscriptions & Publications	\$ 20,000	\$ 20,000	\$ 25,650	\$ 5,650	28.3%
Dues	\$ 9,000	\$ 9,000	\$ 11,070	\$ 2,070	23.0%
Postage	\$ 1,200	\$ 1,200	\$ 800	\$ (400)	-33.3%
Express Shipping	\$ 6,000	\$ 6,000	\$ 4,000	\$ (2,000)	-33.3%
Copying	\$ 24,000	\$ 24,000	\$ 25,000	\$ 1,000	4.2%
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	\$ 2,000	\$ (8,000)	-80.0%
Sales and Use Tax	\$ -	\$ -	\$ -	\$ -	-
Merchant Credit Card Fees	\$ -	\$ -	\$ -	\$ -	-
Presentation and Publicity	\$ -	\$ -	\$ -	\$ -	-
Total Office Costs	\$ 837,420	\$ 1,081,420	\$ 1,218,071	\$ 380,651	45.5%

Table B - 8: Office Costs

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 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
BOT Fee	\$ 300,000	\$ 300,000	\$ 300,000	\$ -	0.0%
BOT Search Fee	\$ -	\$ -	\$ -	\$ -	-
Legal - Reorganization	\$ -	\$ -	\$ -	\$ -	-
Accounting & Auditing Fees	\$ 370,000	\$ 370,000	\$ 402,000	\$ 32,000	8.6%
Legal Fees - Other	\$ 260,000	\$ 260,000	\$ 250,000	\$ (10,000)	-3.8%
Insurance - Commercial	\$ 75,000	\$ 75,000	\$ 65,000	\$ (10,000)	-13.3%
Total Services	\$ 1,005,000	\$ 1,005,000	\$ 1,017,000	\$ 12,000	1.2%

Table B - 9: Professional Services**Table B-10 Miscellaneous**

Miscellaneous Expense	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 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 - 10 :Miscellaneous**Table B-11 Other Non-Operating Expenses**

Other Non-Operating Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Interest Expense	\$ -	\$ -	\$ -	\$ -	-
Office Relocation	\$ -	\$ -	\$ -	\$ -	-
Total Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	-

Table B - 11: Other Non-Operating Expenses**Table B-12 Fixed Assets**

Fixed Asset Additions	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Equipment CapEx	\$ -	\$ -	\$ -	\$ -	-
Computer & Software CapEx	\$ 65,800	\$ 87,800	\$ 73,150	\$ 7,350	11.2%
Furniture & Fixtures CapEx	\$ 14,100	\$ 14,100	\$ 19,000	\$ 4,900	34.8%
Leasehold Improvements	\$ 14,100	\$ 14,100	\$ 19,000	\$ 4,900	34.8%
Allocation of Fixed Assets	\$ -	\$ -	\$ -	\$ -	-
Total Fixed Asset Additions	\$ 94,000	\$ 116,000	\$ 111,150	\$ 17,150	18.2%

Table B - 12: Fixed Assets**Explanation of Significant Variances**

- Computer and software capital expenditures include computer equipment for new hires and equipment upgrades.
- Other planned capital expenditures include reconfigurations of office space.

Table B-13

		Table to be Inserted		

Table B - 13: Three-Year Projections

Section C — Criteria Services Division Activities 2022 Business Plan and Budget

Section C – Criteria Services Division Activities

Criteria Services Division			
(in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	2.14	2.10	-0.04
Total Direct Expenses	\$605,718	\$583,344	(\$22,374)
Total Indirect Expenses	\$387,995	\$358,417	(\$29,578)
Other Non-Operating Expenses	\$0	\$0	\$0
Working Capital and Operating Reserves Requirement	(\$324,222)	(\$309,331)	\$14,891
Fixed Asset Additions	\$6,000	\$5,850	(\$150)
Funding Requirement	\$675,491	\$638,280	(\$37,211)

Table C - 1: Criteria Services Division Business Plan and Budget

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 all NPCC’s Canadian Provincial regulators adopt the NERC standard to ensure no reliability gaps exist.

For 2022 and beyond, the potential reliability impacts of increased penetration of Distributed Energy Resources (DER, e.g. solar and wind), and large amounts of Variable Energy Resources (VER) e.g. offshore wind along with the associated changing fuel mixes within NPCC, warrant further consideration. The Criteria Services Division staff, in conjunction with the NPCC Task Forces and Working Groups have a unique opportunity to conduct reviews of 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 and VER renewable resources to develop reliability documents will become increasingly important over time. Outreach, collaboration, and coordination of topics related to DER and VER 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.

NPCC Criteria Services also will be continually prioritizing the revision of its reliability criteria based on potential emerging risks associated with increased deployment of decarbonized resources.

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 which 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.

2022 Key Assumptions

The Criteria Services division activities are expected to remain stable or slightly increase throughout 2022 depending on reliability need.

- The Criteria Compliance and 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.
- Noncompliance under the CCEP follows the due process stated in the CCEP-1 process document for assessment by the CC followed by a recommendation to the RC to ensure that proper resolution/mitigation/enforcement actions are taken.

2022 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.
- Identify opportunities to develop criteria, procedures or guideline documents to address emerging risks associated with DER VER and energy storage.
- 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 requirements and a “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 2022, 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 2022.

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. A review to revise this Directory was again initiated in 2021 to also incorporate potential revisions due to DER and VER and other emerging risks.

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. A review was initiated in 2021 and will continue into 2022 to address any emerging risks due to DER, VER and decarbonization of resources.

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 RAS. 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 initiated the review and revision of this Directory in 2021. As DER continues to displace conventional resources used for system restoration, this Directory will continue to consider how to effectively use DER to contribute to restoration.

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 and 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 stakeholder 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 non-compliances, 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 CC assessment report and any recommendations on noncompliances are then presented to the NPCC Reliability Coordinating Committee (RCC) for acceptance.

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 consistent 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 held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

2020 Budget and Projection and 2022 Budget Comparisons

Statement of Activities and Capital Expenditures 2021 Budget & Projection, and 2022 Budget						
CRITERIA SERVICES DIVISION						
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ -	\$ -	\$ -	\$ -	\$ -	
Penalty Sanctions	-	-	-	-	-	
Total ERO Funding	\$ -	\$ -	\$ -	\$ -	\$ -	
Membership Dues	671,755	671,755	-	636,745	(35,010)	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	3,736	975	(2,761)	1,535	(2,201)	
Total Funding (A)	\$ 675,491	\$ 672,730	\$ (2,761)	\$ 638,280	\$ (37,211)	
Expenses						
Personnel Expenses						
Salaries	\$ 336,972	\$ 357,510	\$ 20,539	\$ 349,040	\$ 12,069	
Payroll Taxes	23,317	25,985	2,668	25,056	1,739	
Benefits	86,435	66,623	(19,812)	66,252	(20,183)	
Retirement Costs	36,654	38,949	2,295	37,526	872	
Total Personnel Expenses	\$ 483,378	\$ 489,067	\$ 5,689	\$ 477,875	\$ (5,503)	
Meeting Expenses						
Meetings	\$ 11,200	\$ 5,600	\$ (5,600)	\$ 8,400	\$ (2,800)	
Travel	45,440	22,720	(22,720)	34,080	(11,360)	
Total Meeting Expenses	\$ 56,640	\$ 28,320	\$ (28,320)	\$ 42,480	\$ (14,160)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 57,700	\$ 57,700	\$ -	\$ 56,000	\$ (1,700)	
Office Rent	-	-	-	-	-	
Office Costs	4,000	4,000	-	2,989	(1,011)	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	4,000	4,000	-	4,000	-	
Total Operating Expenses, excluding Depreciation	\$ 65,700	\$ 65,700	\$ -	\$ 62,989	\$ (2,711)	
Total Direct Expenses	\$ 605,718	\$ 583,087	\$ (22,631)	\$ 583,344	\$ (22,374)	
Indirect Expenses	\$ 387,995	\$ 387,995	\$ -	\$ 358,417	\$ (29,578)	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 993,713	\$ 971,082	\$ (22,631)	\$ 941,761	\$ (51,952)	
Change in Net Assets (=A-B)	\$ (318,222)	\$ (298,352)	\$ 19,870	\$ (303,481)	\$ 14,741	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 6,000	\$ 6,000	\$ -	\$ 5,850	\$ (150)	
TOTAL BUDGET (=B+C)	\$ 999,713	\$ 977,082	\$ (22,631)	\$ 947,611	\$ (52,102)	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (324,222)	\$ (304,352)	\$ 19,870	\$ (309,331)	\$ 14,891	

Table C - 2: Budget and Current Year Projection Comparison

Personnel Analysis

Total FTE's by Program Area	Budget 2021	Projection 2021	Direct FTEs 2022 Budget	Shared FTEs ¹ 2022 Budget	Total FTEs 2022 Budget	Change from 2021 Budget
CRITERIA SERVICES DIVISION						
Operational Programs						
Reliability Standards	1.07	1.07	1.00	0.05	1.05	-0.02
Compliance Enforcement and Organization Registration and Certification	0.00	0.00	0.00	0.00	0.00	0.00
Training and Education	0.00	0.00	0.00	0.00	0.00	0.00
Reliability Assessment and Performance Analysis	1.07	1.07	1.00	0.05	1.05	-0.02
Situation Awareness and Infrastructure Security	0.00	0.00	0.00	0.00	0.00	0.00
Total FTEs Operational Programs	2.14	2.14	2.00	0.10	2.10	-0.04
Administrative Programs						
Member Forums	0.00	0.00	0.00	0.00	0.00	0.00
General and Administrative	0.00	0.00	0.00	0.00	0.00	0.00
Information Technology	0.00	0.00	0.00	0.00	0.00	0.00
Legal and Regulatory	0.00	0.00	0.00	0.00	0.00	0.00
Human Resources	0.00	0.00	0.00	0.00	0.00	0.00
Accounting and Finance	0.00	0.00	0.00	0.00	0.00	0.00
Total FTEs Administrative Programs	0.00	0.00	0.00	0.00	0.00	0.00
Total FTEs	2.14	2.14	2.00	0.10	2.10	-0.04

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

Table C - 3: Criteria Services Personnel Analysis

Reserve Analysis

Working Capital and Operating Reserve Analysis 2021-2022				
CRITERIA SERVICES DIVISION				
	Total Reserve	Working Capital	Operating Reserve	Business Continuity
Beginning Total Reserve, December 31, 2020	884,967	757,070	88,755	39,142
2021 Non-Statutory Funding (from members)	671,755	671,755		
Plus: 2021 Other funding sources	975	975		
Less: 2021 Projected expenses & fixed asset additions	(977,082)	(966,602)		(10,480)
Remaining Business Continuity Reserves released into Working Capital	0		28,662	(28,662)
Projected Total Reserve, December 31, 2021	580,615	463,198	117,417	0
Desired Total Reserve, December 31, 2022	271,284	192,319 ¹	78,964 ²	0 ³
Less: Projected Total Reserve, December 31, 2021	(580,615)	(463,198)	(117,417)	0
Increase(decrease) in assessments to achieve desired Total Reserve	(309,331)	(270,879)	(38,452)	0
2022 Funding requirement for expenses and fixed asset additions	947,611			
Less: Other Funding Sources	(1,535)			
Less: Release of Business Continuity Reserve Funds ³	0			
Adjustment to Operating Reserve to achieve desired Total Reserve balance ²	(38,452)			
Adjustment to Working Capital to achieve desired Total Reserve balance ¹	(270,879)			
2021 Funding and reserve requirement	636,745			

¹ Working Capital must be within a range from 8.33% to 25.00% of Budget. \$192,319 represents 20.30% of the 2022 budget of \$947,611.

² Operating Reserve must equal 8.33% of Budget. \$78,964 represents 8.33% of the 2022 budget of \$947,611.

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

Table C - 4: Reserve Analysis

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 search and succession related activities. CEO succession was completed during the first quarter of 2021 after which remaining BCR funds were released into Working Capital and Operating Reserves.

Section D — Additional Consolidated Financial Statements

2022 Business Plan and Budget

Section D — Additional Financial Statements

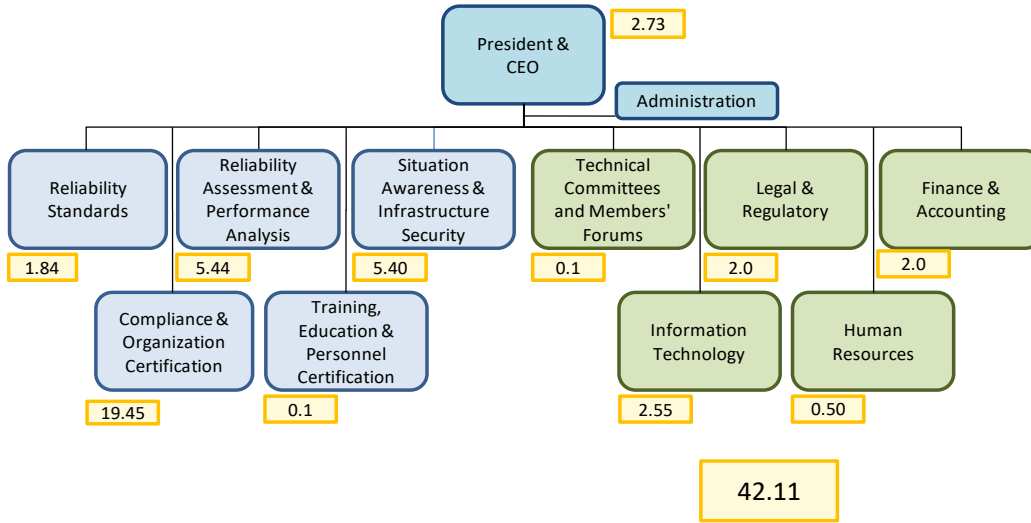
Statement of Financial Position

		Table to be Inserted		

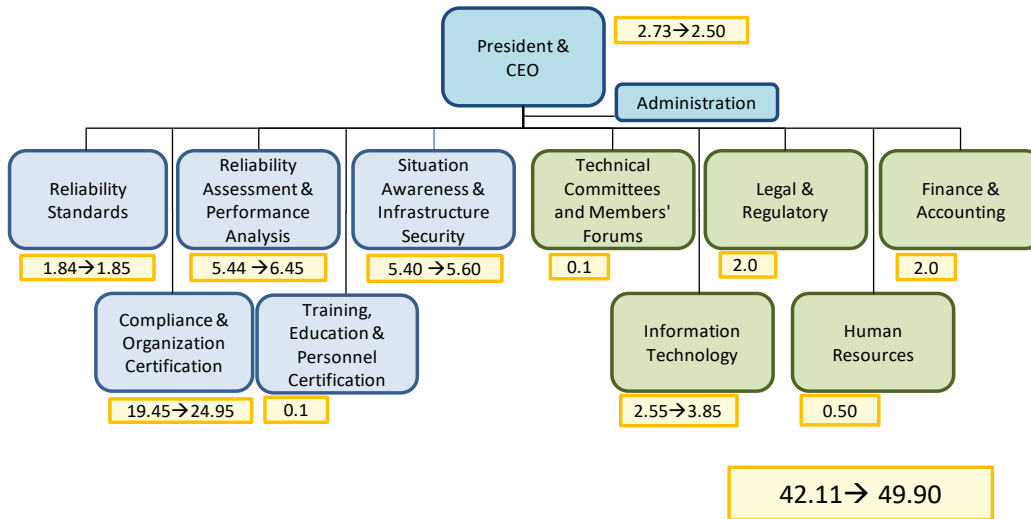
Table D - 1: Statement of Financial Position, Three-Year Comparison

Appendix A Staff Allocations

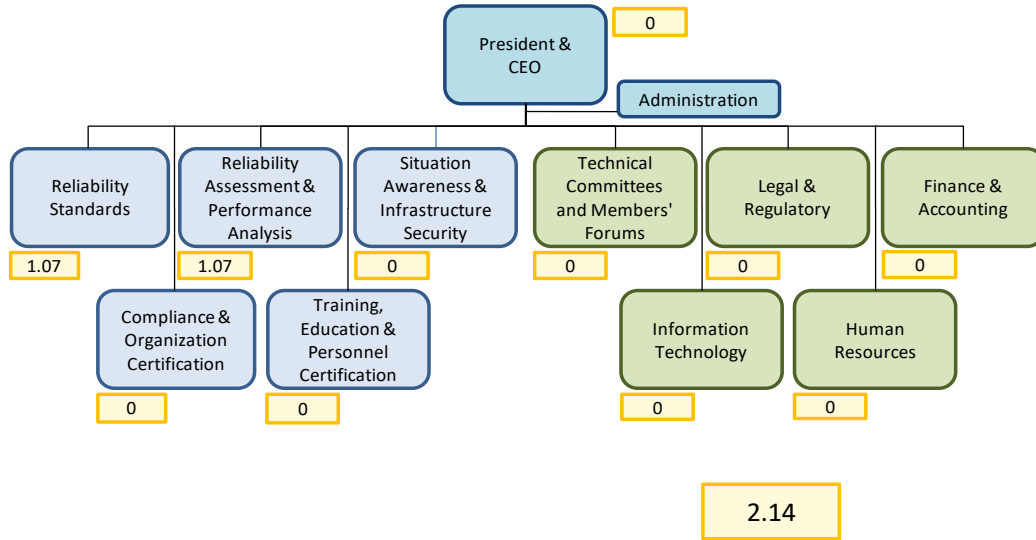
2021 Budget Staff Allocations - RE Division



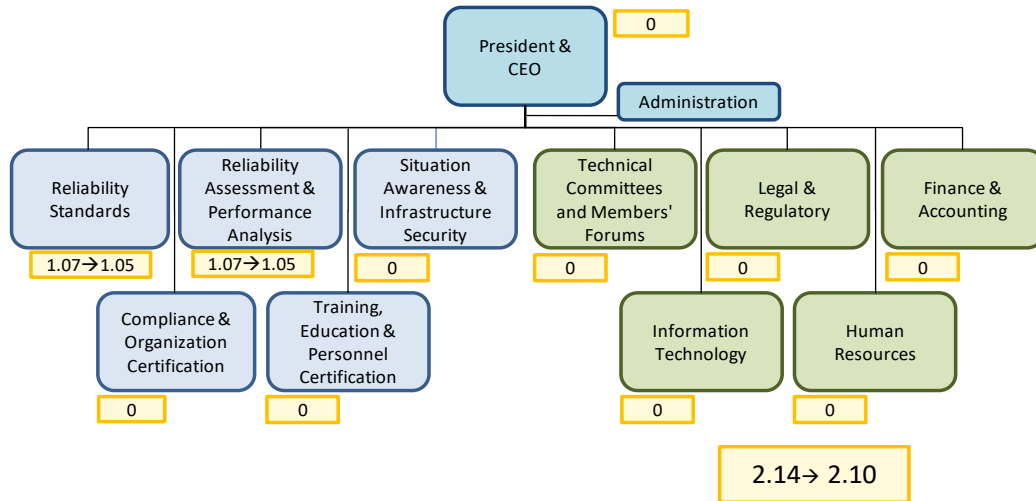
2022 Budget Staff Allocations - RE Division



2021 Budget Staff Allocations - CS Division



2022 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
CAP	Crisis Action Plan
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
DADSUG	Demand Response Availability Data System User Group
DER	Distributed Energy Resources
DHS	Department of Homeland Security
DOE	Department of Energy
EAP	ERO Event Analysis Process
EGWG	Electric-Gas Working Group
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
ERATF	Energy Reliability Assessment Task Force
ERO	Electric Reliability Organization
FAC	Finance and Audit Committee
FERC	Federal Energy Regulatory Commission
FFT	Find, Fix, Track and Report
FTE	Full Time Equivalent
GADSUG	Generating Availability Data System User 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
IRPWG	Inverter-Based Resource Performance Working Group
ISO	Independent System Operator
LMWG	Load Modeling Working Group
LSE	Load Serving Entity
MACD	Market Assessment and Compliance Division
MDCC	Management Development and Compensation Committee
ME	Mitigation and Enforcement
MIDASUG	Misoperation Information Data Analysis System User 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
OLT	Operations Leadership Team
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
PPMVTf	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
SEL	Seque Evidence Locker
SITES	Security Integration and Technology Enablement Subcommittee
SPCWG	System Protection and Control Working Group
SMWG	Synchronized Measurement Working Group
SPIDERWG	System Planning Impacts from Distributed Energy Resources Working Group
SPS	Special Protection Systems
TADSUG	Transmission Availability Data System User 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
VER	Variable Energy Resources

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