



**NY Power  
Authority**

**Canal  
Corporation**

**PROPOSED AGENDA  
JOINT FINANCE AND RISK COMMITTEE MEETING  
Videoconference – January 19, 2021 at 9:00 A.M.**

- 1. Adoption of the January 19, 2021 Proposed Meeting Agenda**
- 2. Motion to Conduct an Executive Session**
- 3. Motion to Resume Meeting in Open Session**
- 4. DISCUSSION AGENDA:**
  - a. Financial Operations**
    - i. Risk Update – Enterprise Resilience **(Thomas Spencer/Adrienne Lotto)**
    - ii. Transfer of Canal OPEB Liabilities into the NYPA Trust **(Adam Barsky)**
  - b. Utility Operations**
    - i. Marcy-New Scotland Transmission Upgrade – Capital Expenditure Authorization Request **(Patricia Lombardi)**
    - ii. Smart Generation & Transmission Initiative Communications Backbone Program – Capital Expenditure Authorization Request **(Patricia Lombardi)**
    - iii. Transmission Life Extension Modernization (“TLEM”) Niagara Switchyard LEM Project – Capital Expenditure Authorization Request **(Patricia Lombardi)**
    - iv. Transmission Life Extension Modernization (“TLEM”) Niagara Protective Relay Replacement Project – Capital Expenditure Authorization Request **(Patricia Lombardi)**
    - v. Blenheim-Gilboa Power Project Unit Circuit Breaker Replacement – Capital Expenditure Authorization Request and Contract Award **(Patricia Lombardi)**
    - vi. St. Lawrence-FDR Power Project – Long Sault Dam Positive Restraint Barrier Project – Capital Expenditure Authorization Request and Contract Award **(Patricia Lombardi)**
    - vii. Niagara Power Project – Next Generation Niagara Program – Mechanical and Electrical Upgrades Project – Shaft Procurement – Contract Award **(Patricia Lombardi)**
- 5. CONSENT AGENDA:**
  - a. Approval of the Joint Meeting Minutes held on November 17, 2020**
- 6. Next Meeting**

**January 19, 2021**

**Motion to Conduct an Executive Session**

I move that the Committee conduct an executive session to discuss the financial and credit history of a particular corporation (pursuant to §105 of the Public Officers Law).



**NY Power  
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**January 19, 2021**

**Motion to Resume Meeting in Open Session**

I move to resume the meeting in Open Session.



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# **Risk Update - Enterprise Resilience**

**Thomas Spencer**

**Sr. Director, Enterprise Risk**

**Adrienne Lotto**

**Sr. Director, Energy Security & Resilience Programs**

**January 19, 2021**

## In 2017, Enterprise Risk Management Established an Enhanced Approach to Resiliency



Enhanced our capabilities to anticipate and respond to disruption-related risks

- Established a broad-based Enterprise Resilience framework
- Harmonized existing programs leveraging the strong foundational elements already in place at NYPA
- Clearly defined governance structure
- Framework operationalized through Utility Operations and the Enterprise Resiliency Team

## Why is resiliency an important area of focus for NYPA and our strategy?

NYPA must accelerate its adoption of a resilience strategy to prepare for a more distributed and uncertain operating environment that will create a constant evolution of threats. Vigilance to anticipate and mitigate those threats is the very essence of resilience.

### All-Hazards

Extreme Weather

Kinetic Attacks

### Nation State Adversaries

Physical Threat

Advanced Persistent Threat

### Legislation

CLCPA

AREGCBA

### Digitization

Interconnected Ecosystem

New / Expanding Attack Vectors

### Societal Changes

COVID-19

New Operating Models

### NYPA's Mission

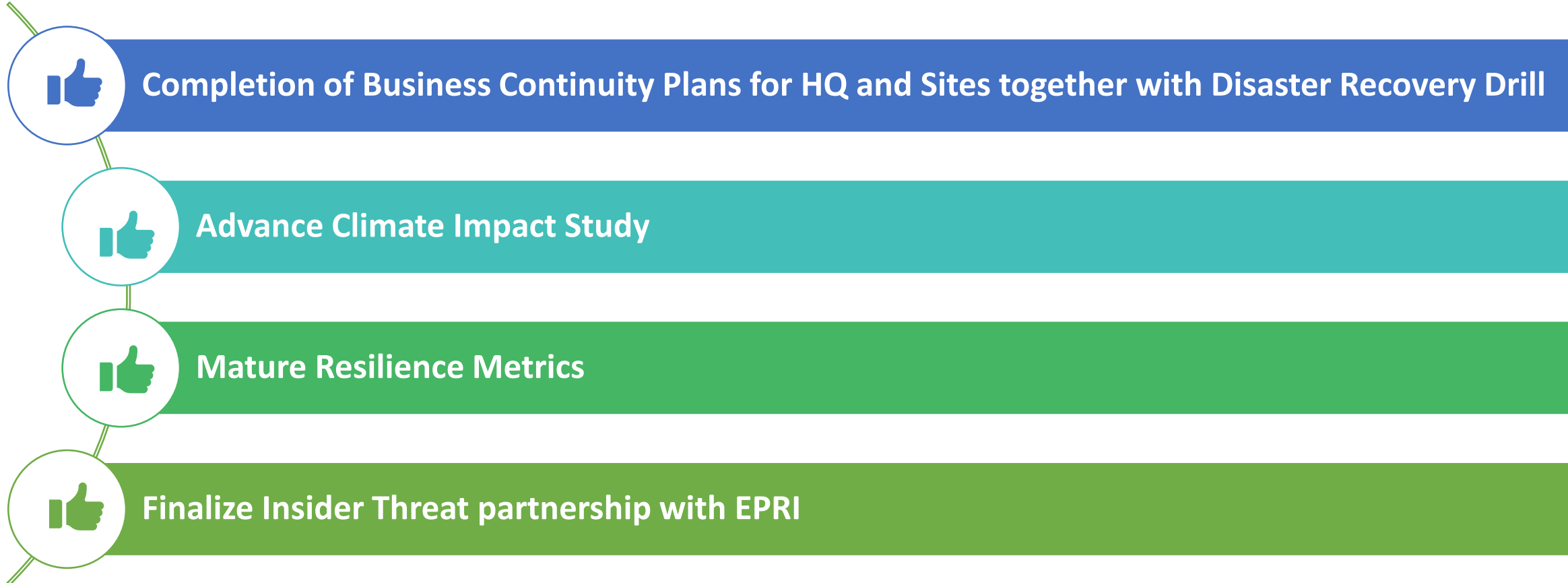
Thought Leader and Innovator Expectations

Reputational Pressures

## Where We Are Going: Key Resilience Activities



## Several Key Deliverables in 2021....



## How will we get there?





**NY Power  
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**Date:** JANUARY 19, 2021

**To:** THE FINANCE AND RISK COMMITTEE

**From:** THE PRESIDENT and CHIEF EXECUTIVE OFFICER

**Subject:** Transfer of Canal OPEB Liabilities into the NYPA Trust

**SUMMARY**

The Trustees will be requested at their January 26, 2021 meeting to approve the addition of Canal Corporation's Other Post-Employment Benefits (OPEB) Liabilities into the NYPA OPEB Trust effective January 1, 2021. Such an action will provide considerable benefit to NYPA largely by removing a significant liability from the NYPA balance sheet and providing more borrowing capacity to fund NYPA's strategic investments consistent with Vision 2030.

The Finance and Risk Committee is requested to recommend to the Trustees the approval of the aforementioned.

**BACKGROUND**

Other Post-Employment Benefits refers to the provision of health care coverage and other benefits by government agencies to retired employees and often to their spouses and other dependents. Aside from these benefits being provided to currently retired employees and their dependents, the government agencies also carry an obligation to provide benefits to currently active employees upon their future retirement, subject to certain eligibility rules defined by the government agency. In many cases, these benefits are reflected in collective bargaining agreements and are therefore contractual obligations.

The future obligation to provide post-employment benefits to both active and retired employees creates a liability of the agency. These obligations represent a multi-year stream of future benefits payments for retiree health care. NYPA adopted GASB 75 in 2017 which required reporting of future stream of any unfunded liabilities on its balance sheet.

Because the OPEB liabilities represent a multi-year stream of future benefits payments for retirees, spouses and dependents, the determination of the liabilities is provided through an actuarial assessment. The actuarial assessment is based upon an estimate of future benefits obligations that is discounted to the present value. The present value of the future obligations, when unfunded, is reported as an OPEB liability on the agency balance sheet.

To mitigate the potential impacts to NYPA's financial standing and credit ratings resulting from unfunded OPEB liabilities, in 2007 NYPA created the Power Authority of the State of New York Other Post-Employment Benefits Trust Agreement ("Trust Agreement"). The Board

approved the initial funding of the Trust with \$100 million out of the Operating Fund and up to \$125 million of funding obtained through proceeds from the Authority's Commercial Paper Series 3 Notes. \$100 million was deposited into the Trust in 2007 and \$125 million was added in 2008.

## DISCUSSION

NYPA assumed ownership of the NY State Canal Corporation in January 2017. The Canal Corporation has accrued OPEB liabilities for its current and future retired employees and beneficiaries. However, the Canal OPEB liability was never funded. Therefore, the full Canal Corporation OPEB liability appears on the NYPA consolidated balance sheet. The 2021 projected OPEB liability for the Canal Corporation is \$342 million. As is the case with NYPA, the Canal Corporation OPEB liability is determined based upon an actuarial analysis considering employee and retiree demographics, the retirement benefits provided to Canal Corporation retirees, projections of future healthcare costs and other relevant factors.

As the actuarial analysis is based upon a projection of multi-year healthcare benefits payments, these costs are present valued to the current year for reporting of the OPEB liability on the balance sheet. According to GASB 75, the present value rate used to discount the future projected benefit payments is based on the AA-rated Municipal Bond 20-Year Index rate (currently about 1.68 percent).

GASB 75 allows the use of a higher present value rate for Qualified Trusts. The discount rate used for the NYPA OPEB Trust is about 7 percent. At the much higher discount rate, OPEB liabilities have a much smaller present value. Therefore, less funds are required to be accrued in the Trust to pay for the OPEB liabilities. Canal Corporation OPEB liabilities, because they are converted to present value at a much lower discount rate, are considerably higher than they would be if pre-funded through a Qualifying Trust. Therefore, the impact to NYPA is twofold. First, the unfunded OPEB liabilities are reported on the NYPA balance sheet. Second, they are also larger in magnitude because of the lower discount rate used to compute the liabilities.

## FISCAL INFORMATION

Since 2007, NYPA has contributed \$340 million to its OPEB Trust. The Trust has performed well with a projected value by 2021 of \$732 million. NYPA OPEB liabilities are projected to be about \$537 million in 2021, leaving an estimated surplus of \$195 million. Because the NYPA OPEB liabilities are fully funded, there are no OPEB liabilities for NYPA's core business appearing on the NYPA balance sheet, providing an enhancement to NYPA's financial position, and borrowing capacity.

The Canal OPEB liabilities on the NYPA balance sheet limit NYPA's borrowing capacity. Without the OPEB liability on the NYPA balance sheet, there would be more capacity to borrow additional funds without impacting the target debt to equity ratio consistent with the Transmission rate cases. Removal from the balance sheet of the 2021 projected OPEB Liability of \$342 million could increase borrowing capacity by an equivalent amount and increase NYPA's investment capacity by up to \$684M, which could be used to fund NYPA's strategic programs under Vision 2030.

The combination of the existing surplus in the NYPA OPEB Trust along with the negative impact of the unfunded Canal OPEB liabilities on NYPA's borrowing capacity suggest a reasonable solution to move the OPEB liabilities into the NYPA Trust Fund. There are significant benefits of including Canal Corporation in the OPEB Trust including lower expense on income statement (\$20M/year over 5.6 years), lower liability on balance sheet (liability goes to zero from \$342M), the flexibility to optimize Trust surplus and improved capital capacity (\$684M).

The decision to transfer the OPEB liabilities into the NYPA Trust is not irrevocable and NYPA could later choose to reverse the decision if other factors change.

### RECOMMENDATION

The Executive Vice President and Chief Financial Officer request that the Finance and Risk Committee recommends that the trustees approve the transfer of the Canal OPEB liabilities into the NYPA OPEB Trust by approval of an amendment to the OPEB Trust Agreement to include payment of benefits to retirees of NYPA and its subsidiaries.

While other options have been examined, no other near-term options exist that can provide as much long-term advantage to NYPA as the one that has been recommended. NYPA will continue to pursue efforts to reduce the costs for providing retiree benefits. However, such efforts will provide benefits to NYPA regardless of the decision to transfer Canal OPEB liabilities to the NYPA Trust.

For the reasons stated, I recommend the approval of the above-requested action by adoption of the resolution below.

Gil C. Quiniones  
President and Chief Executive Officer

## RESOLUTION

RESOLVED, That the Executive Vice President and Chief Financial Officer be, and hereby is, authorized to enter into that certain First Amendment to Power Authority of the State of New York Other Post-Employment Benefits Trust Agreement to amend that certain Other Post-Employment Benefits Trust Agreement dated November 21, 2007 (the "*OPEB Trust Agreement*") for the purpose of expressly including service providers of the Authority's subsidiaries thereunder and otherwise updating the OPEB Trust Agreement, subject to the approval of such amendment by the Executive Vice President and General Counsel or his designee; and be it further

RESOLVED, That the Finance and Risk Committee recommends that the Trustees approve That the Executive Vice President and Chief Financial Officer is hereby authorized to execute and deliver any and all other agreements, papers or instruments on behalf of the Authority that may be deemed necessary or desirable to carry out the foregoing, subject to the approval by the Executive Vice President and General Counsel; and be it further



**Date:** January 19, 2021

**To:** THE FINANCE AND RISK COMMITTEE

**From:** THE PRESIDENT and CHIEF EXECUTIVE OFFICER

**Subject:** Marcy to New Scotland Transmission Upgrade Project  
Capital Expenditure Authorization Request

**SUMMARY**

The Trustees will be requested at their January 26, 2021 meeting to authorize capital expenditures in the amount of \$208,320,800 for the Marcy to New Scotland Transmission Upgrade Project ("Project"), formerly referred to as the AC Transmission Project. This funding will support final engineering, property acquisition, procurement and construction of the transmission line upgrades, upgrades at the Marcy substation, and the remaining system upgrades to the connecting Transmission Owners.

NYPA filed and the Federal Energy Regulatory Commission ("FERC") approved a Project cost of \$280.9 million or 37.5% of the total Project cost of \$750M. LS Power Grid New York Corporation I ("LS") also has submitted and received FERC approval for the balance of the Project. To date, the Trustees have approved capital expenditures in the amount of \$31.1 million for the Project. At this time, the total Project cost estimate is expected to be \$239.4 million, but the costs will continue to be assessed as the design and construction progresses. If additional funds are required a future request will be made to the Finance and Risk Committee and Trustees. The Finance and Risk Committee, at its January 19, 2021, meeting, adopted a resolution recommending that the Trustees approve capital expenditures for continued implementation of the Project. Project staff does not anticipate this need prior to 2023.

**BACKGROUND**

In 2016, the Authority, together with North America Transmission ("NAT"), started Project development and subsequently submitted responses to the New York Independent System Operator ("NYISO") issued AC Transmission Public Policy Transmission Needs Project Solicitation. A Participation Agreement ("PA") was entered into by the Authority and NAT on June 7, 2018. The PA was signed by NAT which changed its name to LS Power Grid New York LLC ("LS LLC"). In January 2020, LS LLC assigned its rights in the Project and the PA to LS Power Grid New York Corporation I.

On April 8, 2019, the NYISO Board of Directors selected the Project as the winning proposal for segment A of the Transmission Need. In consideration of maintaining its purchase option under the PA, the Authority continued to fund 33% of Project development costs until July 28, 2020 when the Authority exercised its ownership option. Upon exercising its option, the Authority is responsible for 37.5% of the total Project costs. A reconciliation process for the change in responsibility of percentage of costs is currently ongoing.

In accordance with the Authority's Capital Planning and Budgeting Procedures, capital expenditures in excess of \$6 million require Trustee approval.

## DISCUSSION

The Project will benefit New York State's electric consumers by enabling the delivery of environmentally desirable power required to meet state energy goals, relieving uneconomic congestion, and replacing aging infrastructure while enhancing New York state's already high standard of system reliability.

The Project is anticipated to be in-service by December 2023 and consists of the following:

- Replacement of approximately twelve (12) miles of conductor on existing Authority-owned 345kV structures;
- Removal of approximately eighty (80) miles of existing National Grid-owned circuits (115kV, 230kV and 345kV);
- Installation of approximately eighty (80) miles of new double- or two new single-circuit 345kV circuits;
- Installation of a new 345kV switchyard at Princeton;
- Removal of the existing National Grid-owned 230kV Rotterdam substation; and
- Installation of a new 345kV substation at Rotterdam.

The Project also includes the upgrade of substation facilities, as determined during the system impact and facility studies. These costs are not included in the \$750 million estimate but are the responsibility of LS and the Authority.

The Finance and Risk Committee is requested to recommend approval of capital expenditures of \$208.3 million. This funding will be utilized for:

|                                        |                       |
|----------------------------------------|-----------------------|
| Engineering/Licensing/Proposal         | \$ 1,125,600          |
| Property Rights Acquisition            | \$ 22,318,900         |
| Procurement                            | \$ 46,185,600         |
| Construction                           | \$ 137,102,800        |
| Authority Direct and Indirect Expenses | \$ 1,587,900          |
| TOTAL                                  | <u>\$ 208,320,800</u> |

## FISCAL INFORMATION

Payment associated with this Project will be made from the Authority's Capital Fund and will be eligible for cost recovery as approved by FERC. The proposed spending has been included in the approved 2021 Capital Budget and Four-Year Capital Plan.

## RECOMMENDATION

If is requested that the Finance and Risk Committee recommend that the Trustees authorize capital expenditures in the amount of \$208,320,800 to support final engineering, property acquisition, procurement and construction of the transmission line upgrades, upgrades at the Marcy substation, and the remaining system upgrades to the connecting Transmission Owners for the Marcy to New Scotland Transmission Upgrade Project.

For the reasons stated, I recommend the approval of the above-requested action by adoption of the resolution below.

Gil C. Quiniones  
President and Chief Executive Officer

## **RESOLUTION**

RESOLVED, That the Finance and Risk Committee recommends that the Trustees, in accordance with the Authority's Capital Planning and Budgeting Procedures, approve capital expenditures in the amount of \$208,320,800 for the Marcy to New Scotland Transmission Upgrade Project;

### **Capital**

**Marcy to New Scotland  
Transmission Upgrade Project**

### **Expenditure Authorization**

**\$208,320,800**



**Date:** January 19, 2021

**To:** THE FINANCE AND RISK COMMITTEE

**From:** THE PRESIDENT and CHIEF EXECUTIVE OFFICER

**Subject:** Smart Generation & Transmission Strategic Initiative -  
Communications Backbone Program  
Capital Expenditure Authorization Request

**SUMMARY**

The Trustees will be requested at their January 26, 2021 meeting to approve additional capital expenditures in the amount of \$24,752,178 for the Communications Backbone Program ("Program"). The increased funding would be in addition to the \$153 million currently authorized by the Trustees, bringing the total Program cost to \$177,782,358.

The Finance and Risk Committee is requested to recommend to the Trustees the approval of additional capital expenditures in the amount of \$24,752,178 for continued implementation of the Program.

**BACKGROUND**

In accordance with the Authority's Capital Planning and Budgeting Procedures, capital expenditures more than \$6 million require Trustee approval.

The Program was initially identified as a foundational element of the Authority's Smart Generation & Transmission ("Smart G&T") Strategic Initiative. The goal of the Program is to establish a dedicated, redundant communications network that builds on the Authority's existing infrastructure and is integrated into the long-term asset strategy while leveraging available infrastructure from independent dark-fiber service providers to reduce dependency on commercial telecommunication providers. With VISION2030, the Program continues to be a key enabler to achieving NYPA's strategic priorities among, including the development of new products and services.

Once completed, the Authority will have a dedicated, robust, secure, and scalable communications network that supports:

- Replacement of legacy point-to-point circuits that will inevitably need to be retired
- Increased data flow from a host of intelligent end-point devices deployed throughout the Authority's generation and transmission assets
- Enabling capabilities of key components of the Strategic Vision including the Integrated Smart Operating Center ("iSOC") and the Emergency Energy Control Center, and
- Improved analytics to promote improved business and operational decisions.

At the onset of the Program, the Authority evaluated three options when considering a solution for an improved communications system. The first option was to continue with a total leased solution. Second, a total-owned solution, in which the Authority would deploy fiber optical

ground wire (“OPGW”) along all its transmission lines. Last, a hybrid solution utilizing a mix of OPGW, digital microwave networks, and dark fiber leasing.

The hybrid solution offers the Authority the best value, including many of the controls and security benefits of a fully owned solution while reducing implementation costs and resource needs. The scope of the hybrid solution is to install OPGW, microwave communications, and utilize capitalized leases for dark fiber in the Authority’s regions. The redundant network will leverage existing infrastructure and new installations including fiber OPGW which will be installed on the Authority’s existing transmission towers. A new redundant microwave system will be installed in Northern NY and a new system will be installed in the Southeast NY region, leveraging existing Authority infrastructure as well as tower leasing sites for optimum communication and stability. Leasing of dark fiber provides a secondary fiber path to all major sites in each region.

## **DISCUSSION**

Capital expenditures in the amount of \$153,030,180 were previously approved by the Trustees for implementation of the Program as follows:

- \$19.78 million - March 2017,
- \$77.5 million - October 2018, and
- \$52.72 million - December 2019

OPGW has been installed on the following NYPA transmission lines: NR2, CCDA, DART44, GF5, GNS1, MMS, PS1 and PV20 which totals to completing installation of OPGW for approximately 210 miles out of 530 miles. Furthermore, the engineering for all OPGW work has been completed except the MSU section that has been descoped. Also, fiber electronics Phase 1 has been installed, and all equipment for Phases 2 and 3 have been purchased. A lease fiber connection from CEC to Plattsburgh has been completed. Lastly, a lease connection from Dolson Ave to White Plains has been commissioned.

After the spring 2020 outage work was canceled and contracts were paused due to the COVID-19 pandemic, the Program cost and scope were re-evaluated, and the Estimate at Completion has increased to \$177,782,358 due to the following changes:

- Increased cost:
  1. OPGW installation cost increase:
    - a. Fall 2019 & Spring 2020 outage cancelations
    - b. Additional constraints required per regulatory permits
    - c. Addition of aviation subject-matter experts
    - d. Contingencies required for installation during the summer peak period, with potential 72-hour recalls
    - e. OPGW third party tie-in implementation re-evaluation
  2. Increase in the cost of the Northern New York microwave installation
    - a. Unplanned, unforeseen station upgrades
    - b. Temporary migration to and from the DANC dark fiber to commission the project
  3. New fiber lease connection between Plattsburgh and Albany was added as secondary path out of Northern New York to increase network resiliency. This was not an option at the onset of the Program but was added since MSU was descoped.
  4. The original estimate of 3% for project direct cost has been increased to 6% based

5. Capital indirect costs increased from 5% to 12%, due to the Authority's policy change in July 2020
- Decreased cost:
    1. OPGW installation on MSU1, MW1, and WPN1 transmission lines have been removed from the project scope

### **FISCAL INFORMATION**

Payment associated with this Program will be made from the Authority's Capital Fund and 65% of the cost will be recovered under the Authority's FERC approved formula rate. The proposed spending has been included in the approved 2021 Capital Budget and Four-Year Capital Plan.

### **RECOMMENDATION**

It is requested that the Finance and Risk Committee recommend that the Trustees approve additional capital expenditures in the amount of \$24,752,178 to continue implementation of the Communications Backbone Program.

For the reasons stated, I recommend the approval of the above-requested action by adoption of the resolution below:

Gil C. Quiniones  
President and Chief Executive Officer

## RESOLUTION

RESOLVED, That the Finance and Risk Committee recommends that the Trustees authorize capital expenditures in the amount of \$24,752,178 are hereby authorized in accordance with, and as recommended in, the foregoing memorandum of the President and Chief Executive Officer.

RESOLVED, That the Authority will use Capital Funds, which may include proceeds of debt to finance the costs of the Smart Generation & Transmission Initiative Communications Backbone Program.

### **Capital**

Smart Generation & Transmission Initiative  
Communications Backbone Program

### **Expenditure Authorization**

\$24,752,178



**Date:** January 19, 2021

**To:** THE FINANCE AND RISK COMMITTEE

**From:** THE PRESIDENT and CHIEF EXECUTIVE OFFICER

**Subject:** Transmission Life Extension & Modernization Program  
Niagara Switchyard Life Extension & Modernization  
Capital Expenditure Authorization Request

**SUMMARY**

The Trustees will be requested at their January 26, 2021 meeting to approve capital expenditures in the amount of \$121 million for the continued implementation and completion of the Transmission Life Extension and Modernization Program – Niagara Switchyard Life Extension & Modernization Project (“Project”).

The total estimated Project cost is \$276 million. The Trustees approved \$154.7 million at their May 22, 2014 meeting. This request will release the final balance of the capital expenditures for the Project.

The Finance and Risk Committee is requested to recommend to the Trustees the approval of capital expenditures in the amount of \$121 million, to continue implementation and complete the Project.

**BACKGROUND**

In accordance with the Authority’s Capital Planning and Budgeting Procedures, capital expenditures in excess of \$6 million require Trustee approval.

The Transmission Life Extension and Modernization Program (“TLEM”) is a multiyear program that will upgrade the Authority’s existing transmission system to maintain availability, increase reliability and ensure regulatory compliance. The TLEM Program encompasses transmission assets in the Central, Northern, and Western regions and has been divided into several projects at an estimated cost of \$726 million.

The Niagara Switchyard is a critical component of the Authority’s transmission system. The existing equipment at the Niagara Switchyard are at or near the end of life and require replacement. The Project, which commenced in 2014, is structured to prioritize the replacement of poor performing systems and sequenced in conjunction with planned equipment outages, internal resource availability and external utility upgrades.

**DISCUSSION**

The Niagara Switchyard Life Extension & Modernization Project is a multiyear project within the TLEM Program and includes replacement or upgrades to the 115kV and 230kV Switchyard equipment, including:

1. Oil Circuit Breakers (115kV & 230kV)
2. 13.8kV Switchgear

3. Autotransformers
4. Disconnect Switches and Motorized Disconnect Switches
5. Grounding (Sections)
6. Measurement Transformers
7. Insulators
8. Conductors

The Project is structured to align with the Niagara Relay Replacement Project. Through 2020, two Autotransformers, sixteen (16) 115kv Circuit Breakers, nine (9) 230kV Circuit Breakers, the 115kV Bus, disconnects switches and other ancillary equipment have been replaced. Beginning in 2021 the remaining project activities will replace two (2) Autotransformers, five (5) 115kv Circuit Breakers, twenty-one (21) 230kV Circuit Breakers, the 13.8kV Switchgear, motor and manually operated disconnect switches and other ancillary equipment. Completion is targeted in 2025, subject to approved outages.

Capital expenditures in the amount of \$154.7 million were previously authorized, of which \$105,610,052 has been spent through November 2020. The current request of \$121 million includes the remaining balance of capital funds needed to complete the Project, scheduled through 2025 and is comprised as follows:

|                                               |                      |
|-----------------------------------------------|----------------------|
| Engineering/Design                            | \$ 10,650,000        |
| Procurement                                   | \$ 39,720,000        |
| Construction/Installation                     | \$ 43,080,000        |
| <u>Authority Direct and Indirect Expenses</u> | <u>\$ 27,550,000</u> |
| TOTAL                                         |                      |
| \$ 121,000,000                                |                      |

The estimated cost to continue and complete execution of the project is \$121 million, of which \$266.9 million was previously presented to the Trustees in May 2014. The higher estimate to complete the Project is due to the increase in indirect costs as a result of the Authority's Policy Change adopted in July 2020, which increased the indirect capital allocation from 5% to 12%, retroactive to January 2020.

#### FISCAL INFORMATION

Payments associated with this Project will be made from the Authority's Capital Fund and will be recovered under the Authority's FERC approved formula rate.

The proposed spending has been included in the approved 2021 Capital Budget and Four-Year Capital Plan.

## RECOMMENDATION

It is requested that the Finance and Risk Committee recommend that the Trustees approve capital expenditures in the amount of \$121 million, for the continued implementation and completion of the Transmission Life Extension and Modernization Program – Niagara Switchyard Life Extension & Modernization Project.

For the reasons stated, I recommend the approval of the above-requested action by adoption of the resolution below.

Gil C. Quiniones  
President and Chief Executive Officer

## **RESOLUTION**

RESOLVED, That the Finance and Risk Committee recommends that the Trustees, pursuant to the Authority's Capital Planning and Budgeting Procedures, approve capital expenditures in the amount of \$121,000,000 for the continued implementation and completion of the Transmission Life Extension and Modernization Program – Niagara Switchyard Life Extension & Modernization Project, in accordance with, as recommended in, the foregoing memorandum of the President and Chief Executive Officer;

RESOLVED, That the Authority will use Capital Funds, which may include proceeds of debt issuances, to finance the costs for the aforementioned project.

### **Capital**

TLEM – Niagara Switchyard LEM

### **Expenditure Authorization**

\$121,000,000



**Date:** January 19, 2021

**To:** THE FINANCE AND RISK COMMITTEE

**From:** THE PRESIDENT and CHIEF EXECUTIVE OFFICER

**Subject:** Transmission Life Extension & Modernization Program  
Niagara Protective Relay Replacement Project  
Capital Expenditure Authorization Request

**SUMMARY**

The Trustees will be requested at their January 26, 2021 meeting to approve capital expenditures in the amount of \$18.3 million, for the continued implementation and completion of the Transmission Life Extension and Modernization Program – Niagara Protective Relay Replacement Project (“Project”).

The total estimated Project cost is \$44.2 million. The Trustees approved \$25.9 million in 2012. This request will release the final balance of the capital expenditures for the Project.

The Finance and Risk Committee is requested to recommend to the Trustees the approval of capital expenditures in the amount of \$18.3 million to continue implementation and complete the Project.

**BACKGROUND**

In accordance with the Authority’s Capital Planning and Budgeting Procedures, capital expenditures in excess of \$6 million require Trustee approval.

The Transmission Life Extension and Modernization Program (“TLEM”) is a multiyear program that will upgrade the Authority’s existing transmission system to maintain availability, increase reliability and ensure regulatory compliance. The TLEM Program encompasses transmission assets in the Central, Northern, and Western regions and has been divided into several projects at an estimated cost of \$726 million.

The Authority is facing a growing need to replace existing protective relaying systems at its facilities. This is due to many factors including unavailability of spare parts, lack of original equipment manufacturer support and poor reliability. This Project will continue to replace the existing protective relay systems at the Niagara Switchyard.

**DISCUSSION**

The Niagara Protective Relay Replacement Project is a multiyear project within the TLEM Program and includes protective relay upgrades to the 115kV and 230kV switchyard equipment. The protective relay system is a critical component of the power system and ensures its reliable and safe operation. The protective relay systems at the Niagara Switchyard are at or near the end of life and require replacement. The Project, which commenced in 2012, is structured to prioritize the replacement of poor performing relay systems and sequenced in conjunction with planned equipment outages, internal resource availability and utility upgrades.

This Project was initiated in 2012 and through 2020, protective relays have been upgraded in Bays 11, 12, 13, 15, 16, 17, 19, 20, 23 and the 115kV Bus sections. The remaining project activities include replacement of protective relays for Bays 10, 14, 18, 22 through 26 and the 230kV Bus sections. Completion is targeted in 2025, subject to approved outages.

Capital expenditures in the amount of \$25.9 million were previously authorized, of which \$23,236,620 has been spent through November 2020. The current request of \$18.3 million includes the remaining balance of capital funds needed to complete the Project, scheduled through 2025 and is comprised as follows:

|                                               |                     |
|-----------------------------------------------|---------------------|
| Engineering/Design                            | \$ 2,220,000        |
| Procurement                                   | \$ 2,460,000        |
| Construction/Installation                     | \$ 4,980,000        |
| <u>Authority Direct and Indirect Expenses</u> | <u>\$ 8,640,000</u> |
| TOTAL                                         | \$ 18,300,000       |

The estimated cost to continue implementation and complete the Project is \$18.3 million. A total estimate of \$52.2 million was previously presented to the Trustees in October 2012. Through lessons learned and efficiencies gained, the new Project total estimate is \$44.2 million, which represents a decrease of \$8 million from the previous estimate.

#### FISCAL INFORMATION

Payments associated with this Project will be made from the Authority's Capital Fund and will be recovered under the Authority's FERC approved formula rate.

The proposed spending has been included in the approved 2021 Capital Budget and Four-Year Capital Plan.

#### RECOMMENDATION

It is requested that the Finance and Risk Committee recommend that the Trustees approve capital expenditures in the amount of \$18.3 million for the continued implementation and completion of the Transmission Life Extension and Modernization Program – Niagara Protective Relay Replacement Project.

For the reasons stated, I recommend the approval of the above-requested action by adoption of the resolution below.

Gil C. Quiniones  
President and Chief Executive Officer

## **RESOLUTION**

RESOLVED, That the Finance and Risk Committee recommends that the Trustees, pursuant to the Authority's Capital Planning and Budgeting Procedures, approve capital expenditures in the amount of \$18,300,000 for the continued implementation and completion of the Transmission Life Extension and Modernization Program – Niagara Protective Relay Replacement Project, in accordance with, as recommended in, the foregoing memorandum of the President and Chief Executive Officer;

RESOLVED, That the Authority will use Capital Funds, which may include proceeds of debt issuances, to finance the costs for the aforementioned project.

### **Capital**

TLEM – Niagara Protective  
Relay Replacement Project

### **Expenditure Authorization**

\$18,300,000



**Date:** January 19, 2021

**To:** THE FINANCE AND RISK COMMITTEE

**From:** THE PRESIDENT and CHIEF EXECUTIVE OFFICER

**Subject:** Blenheim-Gilboa Power Project  
Replace Breakers for BG Units 2-4  
Capital Expenditure Authorization Request and Contract Award

### SUMMARY

The Trustees will be requested at their January 26, 2021 meeting to approve capital expenditures in the amount of \$10,544,000 and approve the award of a four-year contract to ABB Enterprise Software Inc., of Cary, NC, ("ABB") in the amount of \$1,458,135 to complete design, fabrication, testing, delivery, and installation of ISO Phase Bus work associated with three indoor SF6 generator/motor protection circuit breakers at the Blenheim-Gilboa Power Project (the "Project").

Capital Expenditures in the amount of \$250,000, for preliminary engineering and planning, were previously approved by the President and Chief Executive Officer, bringing the total estimated Project cost to \$10.8 million. Also, Interim funding for the contract award to ABB, in the amount of \$200,000, was approved by the Executive Vice President and Chief Operating Officer in December 2020.

The Finance and Risk Committee is requested to recommend to the Trustees the approval of capital expenditures in the amount of \$10,544,000 and approve a four-year contract to ABB in the amount of \$1,458,135 for engineering, procurement, and construction services, for the implementation of the Project.

### BACKGROUND

In accordance with the Authority's Capital Planning and Budgeting Procedures, capital expenditures in excess of \$6 million require Trustee approval.

Section 2879 of the Public Authorities Law and the Authority's Guidelines for Procurement Contracts requires Trustee approval for procurement contracts involving services to be rendered for a period in excess of one year.

BG Unit-1 breaker was replaced in May 2019, due to a catastrophic, sudden failure in September 2018. Following a root cause analysis and to mitigate the risk of another failure, the breakers for BG Units 2-4 will be replaced with newly designed breakers. Consequently, the Iso Phase Bus will be modified to accommodate the new breaker design and a maintenance link will be added to facilitate maintenance, as was done for Unit-1.

### DISCUSSION

The scope of this project includes design, fabrication, testing, site delivery, removal of existing, and installation of three, new indoor SF6 generator/motor protection circuit breakers (plus one spare breaker), its associated ISO Phase Bus work and maintenance disconnect links, at the Blenheim-Gilboa Power Project. ABB will design and furnish the three breakers under a separate equipment contract. BG operations and maintenance crew and resources will remove the existing and install the new breakers. ABB will also design, furnish and install the ISO Phase Bus work and maintenance disconnect links associated with breakers as part of this RFP described below. One breaker and associated ISO Phase bus work installation per year is planned with anticipated project closeout to occur by December 2024.

The Authority issued Request for Proposal (“RFP”) No. Q20-7040MH, which was advertised in the NYS *Contract Reporter* on September 24, 2020. The Discovery tool of the ARIBA event was activated for this RFP. Thirteen potential bidders were invited/requested to participate to this RFP. On October 28, 2020, two proposals were received as summarized in the table below.

| <b>Bidder</b>                           | <b>Location</b> |
|-----------------------------------------|-----------------|
| ABB Enterprise Software Inc. (ABB)      | Cary, NC        |
| Haugland Energy Group LLC<br>(Haugland) | Plainview, NY   |

Proposals were reviewed by an Evaluation Committee comprised of representatives from Engineering, Quality Assurance, Strategic Supply Management, BG Operations, and Project Management. The proposals were evaluated based upon proposal completeness, experience, schedule, price, responsiveness to the requirements of the RFP, proposed team, and technical and commercial exceptions taken to the RFP. Since the breakers are critical assets to the Bulk Electric System (“BES”), replacement must be procured from suppliers that are compliant with NERC CIP-013 requirements and qualified as BES equipment suppliers to the Authority. NERC-CIP13 review was completed and approved by the Authority’s cross functional team; the review consisted of questionnaire related to Network Security Risk, Platform and Data Security Risk, Technology Risk, Cyber Threat, and Manufacturing and Development Risk. The RFP event was also reviewed for compliance with the Executive Order (“EO”) 13920 “Securing the United States Bulk Power System”. After reviewing this EO, it was considered not applicable to this Contract. M/WBE and SDVOB participation goals were waived on this RFP.

The committee concluded that ABB submitted the lowest-priced and technically acceptable bid. ABB has extensive experience in construction of this magnitude, has performed well on previous Authority projects, has demonstrated knowledge of the scope-of-work and is capable of completing this project in accordance with the schedule.

Preliminary funding in the amount of \$250,000 was approved to start this Project. The total capital expenditure authorization request is comprised of the following:

|                                     |    |           |
|-------------------------------------|----|-----------|
| Preliminary Engineering             | \$ | 50,000    |
| Detailed Engineering                | \$ | 262,500   |
| Equipment Procurement / Fabrication | \$ | 5,500,000 |

|                                       |    |            |
|---------------------------------------|----|------------|
| Construction/ Installation            | \$ | 1,935,000  |
| Authority Direct and Indirect Expense | \$ | 3,046,500  |
| <hr/>                                 |    |            |
| Total                                 | \$ | 10,794,000 |

#### FISCAL INFORMATION

Payments associated with this project will be made from the Authority's Capital Fund.

#### RECOMMENDATION

It is requested that the Finance and Risk Committee recommend that the Trustees approve capital expenditures in the amount of \$10,544,000 and approve a four-year contract to ABB in the amount of \$1,458,135 for engineering, procurement, and construction services, for implementation of the Project.

For the reasons stated, I recommend the approval of the above-requested action by adoption of the resolution below.

Gil C. Quiniones  
President and Chief Executive Officer

## **RESOLUTION**

RESOLVED, That the Finance and Risk Committee recommends that, pursuant to the Authority's Capital Planning and Budgeting Procedures, the Trustees approve capital expenditures in the amount of \$10,544,000 for the replacement of breakers for BG Units 2-4 in accordance with, and as recommended in, the forgoing memorandum of the President and Chief Executive Officer;

RESOLVED, That the Authority will use capital funds, which may include proceeds of debt, to finance the costs of the BG Units 2-4 Breaker Replacement Project.

| <b><u>Capital</u></b>                                         | <b><u>Expenditure<br/>Authorization</u></b> |
|---------------------------------------------------------------|---------------------------------------------|
| Blenheim-Gilboa Power Project<br>Replace BG 2-4 Unit Breakers | <u>\$10,544,000</u>                         |

AND BE IT FURTHER RESOLVED, That the Finance and Risk Committee recommends that, pursuant to the Guidelines for Procurement Contracts adopted by the Authority and the Authority's Expenditure Authorization Procedures, the Trustees approve a four-year contract award in the amount of \$1,458,135, for the aforementioned project;

| <b><u>Contractor</u></b>                           | <b><u>Contract<br/>Approval</u></b> |
|----------------------------------------------------|-------------------------------------|
| ABB Enterprise Software Inc. (ABB)<br>(Q20-7040MH) | \$1,458,135                         |



**Date:** January 19, 2021

**To:** THE FINANCE AND RISK COMMITTEE

**From:** THE PRESIDENT and CHIEF EXECUTIVE OFFICER

**Subject:** St. Lawrence-FDR Power Project  
Long Sault Dam - Positive Restraint Barrier  
Capital Expenditure Authorization Request and Contract Award

**SUMMARY**

The Trustees will be requested at their January 26, 2021 meeting to approve capital expenditures in the amount of \$11,831,700 and to approve the award of a two-year contract to HOHL Industrial Inc., of Buffalo, NY, in the amount of \$8.1 million for engineering, procurement, and construction services required to install a Positive Restraint Barrier upstream of the Long Sault Dam ("LSD") at the St. Lawrence-FDR Power Project (the "Project"). Interim funding in the amount of \$1,000,000 was previously approved by the Chief Operating Officer, to initiate the design and engineering of the barrier system and begin the geotechnical planning.

Capital Expenditures in the amount of \$1,000,000, for preliminary engineering and planning, were previously approved by the President and Chief Executive Officer, bringing the total estimated Project cost to \$12.8 million.

The Finance and Risk Committee is requested to recommend to the Trustees the approval of capital expenditures in the amount of \$11,831,700 and the approval of a two-year contract to HOHL Industrial Inc., in the amount of \$8.1 million for engineering, procurement, and construction services, for the implementation of the Project.

**BACKGROUND**

In accordance with the Authority's Capital Planning and Budgeting Procedures, capital expenditures in excess of \$6 million require Trustee approval.

Section 2879 of the Public Authorities Law and the Authority's Guidelines for Procurement Contracts requires Trustee approval for procurement contracts involving services to be rendered for a period in excess of one year.

The LSD is a 2,960-foot-long curved concrete gravity structure with 30 gated spillway bays. At the south end of the spillways are three non-overflow blocks and an earth embankment. At the north end of the spillways are 16 non-overflow blocks, four of which contain service and equipment rooms.

The present operation of the LSD is to serve power generation, via operation of the spillway gates. The gates function to spill excess flows from the St. Lawrence River when necessary in the operation of the Robert Moses/Robert H. Saunders Power Dam. LSD spillway gates have been operated more frequently in recent years due to higher than normal river flows and to account for economic conditions as Zone D has a high concentration of wind generation.

Power Dam operations must still meet river flow requirements by spilling at LSD when these situations arise.

To ensure safety and minimize access by unauthorized persons, the Authority at the direction of the Federal Energy Regulatory Commission ("FERC") was tasked with installing a positive-restraint barrier system, upstream of the LSD. The Authority was required to submit a schedule for design to FERC for review by December 31, 2020 and complete construction by October of 2021. To meet this aggressive schedule, it is critical to award and start design immediately.

The scope of this Project includes engineering, design, fabrication, and installation of an approximately 4,500-ft boat denial barrier, upstream of the LSD. To support the installation and future maintenance of the barrier, design, engineering, and installation of a boat launch is also required and part of the scope.

## DISCUSSION

The Authority issued Request for Proposal Q20-7073NF ("RFP") through the Ariba system, which was advertised in the New York State *Contract Reporter* on October 26, 2020. Twenty (20) firms were invited into the Ariba Event and eighty-two (82) firms viewed the RFP on the Authority's SSM website. A bid walk was held November 4, 2020, with eight (8) firms in attendance. One (1) addendum was issued November 13, 2020. Two (2) proposals were received on December 1, 2020.

| <b>Bidder</b>            | <b>Location</b> |
|--------------------------|-----------------|
| HOHL Industrial Services | Buffalo, NY     |
| JF Brennan Company       | La Crosse, WI   |

Proposals were reviewed by an Evaluation Committee comprised of representatives from Engineering, Strategic Supply Management, St. Lawrence Maintenance, Program Controls, and Project Management. The proposals were evaluated based upon proposal completeness, experience, schedule, price, responsiveness to the requirements of the RFP, proposed team, and technical and commercial exceptions taken to the RFP.

HOHL's proposal was found to be compliant with the requirements of the bid documents. Additionally, HOHL provided quality control, environmental, and safety plans. HOHL can meet the schedule and has demonstrated execution of similar work for another customer.

Preliminary funding in the amount of \$ 1,000,000 was recently approved to start engineering and required geotechnical plans and surveys. The total capital expenditure authorization request is comprised of the following:

|                                       |    |           |
|---------------------------------------|----|-----------|
| Preliminary Engineering               | \$ | 450,000   |
| Detailed Engineering                  | \$ | 1,086,100 |
| Procurement                           | \$ | 2,125,800 |
| Construction/ Installation            | \$ | 6,526,100 |
| Authority Direct and Indirect Expense | \$ | 2,643,700 |

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|       |    |            |
|-------|----|------------|
| Total | \$ | 12,831,700 |
|-------|----|------------|

#### FISCAL INFORMATION

Payments associated with this project will be made from the Authority's Capital Fund.

#### RECOMMENDATION

It is requested that the Finance and Risk Committee recommend that the Trustees approve capital expenditures in the amount of \$11,831,700 and approve a two-year contract to HOHL Industrial Inc., in the amount of \$8.1 million for engineering, procurement, and construction services, for the implementation of the Project.

For the reasons stated, I recommend the approval of the above-requested action by adoption of the resolution below.

Gil C. Quiniones  
President and Chief Executive Officer

## **RESOLUTION**

RESOLVED, That the Finance and Risk Committee recommends that, pursuant to the Authority's Capital Planning and Budgeting Procedures, the Trustees approve capital expenditures in the amount of \$11,831,700 for the installation of the Positive Restraint Barrier to be located upstream of the Long Sault Dam at the St. Lawrence-FDR Power Project, in accordance with, and as recommended in, the forgoing memorandum of the President and Chief Executive Officer;

RESOLVED, That the Authority will use capital funds, which may include proceeds of debt, to finance the costs for the Long Sault Dam Positive Restraint Barrier Project.

| <b><u>Capital</u></b>                                                          | <b><u>Expenditure<br/>Authorization</u></b> |
|--------------------------------------------------------------------------------|---------------------------------------------|
| St. Lawrence-FDR Power Project<br>Long Sault Dam<br>Positive Restraint Barrier | \$11,831,700                                |

AND BE IT FURTHER RESOLVED, That the Finance and Risk Committee recommends that, pursuant to the Guidelines for Procurement Contracts adopted by the Authority and the Authority's Expenditure Authorization Procedures, the Trustees approve a two-year contract award in the amount of \$8.1 million, for the aforementioned project;

| <b><u>Contractor</u></b>                            | <b><u>Contract<br/>Approval</u></b> |
|-----------------------------------------------------|-------------------------------------|
| HOHL Industrial Inc.<br>Buffalo, NY<br>(Q20-7073NF) | \$8,100,000                         |



**Date:** January 19, 2021

**To:** THE FINANCE AND RISK COMMITTEE

**From:** THE PRESIDENT and CHIEF EXECUTIVE OFFICER

**Subject:** Niagara Power Project – Next Generation Niagara Program  
Mechanical and Electrical Upgrades Project  
Shaft Procurement – Contract Award

**SUMMARY**

The Trustees will be requested at their January 26, 2021 meeting to approve the award of a 15-year design, manufacture, and delivery contract to GE Renewables US LLC (“GE”) of Greenwood Village, CO in the amount of \$18.1 million. This award includes \$3.2 million in escalation over the life of the contract for the Next Generation Niagara (“NGN”) – Mechanical and Electrical Upgrades Project – Shaft Procurement. In addition, the Trustees are requested to waive the New York Buy America Act requirements regarding the purchase of steel components.

The Finance Committee is requested to recommend to the Trustees the approval of the aforementioned contract.

**BACKGROUND**

Section 2879 of the Public Authorities Law and in accordance with the Authority’s Expenditure Authorization Procedures, the award of non-personal services contracts in excess of \$6 million require the Trustees’ approval.

NGN is comprised of four main projects: (1) controls upgrade, (2) mechanical and electrical upgrades, (3) 630-ton gantry crane replacement, and (4) penstock platform and inspections. This contract is for the design, manufacture, and delivery of the shafts, required to support the Mechanical and Electrical Upgrades project. The Mechanical and Electrical Upgrades project will have future, separate contract(s) for procurement of other major material and to perform the remaining work.

The scope of work under this contract is for design, manufacture, and delivery of thirteen (13) shafts and one (1) thrust runner. The shafts will be received and installed by Authority craft in support of the NGN Mechanical and Electrical Upgrades.

It is anticipated that the next contract to be submitted for Trustee approval will be for unit overhauls starting in 2023, which is tentatively scheduled to be presented to the Trustees at the May 2021 meeting. The overall Program is estimated for completion by 2034.

## DISCUSSION

A Request for Proposal (“RFP”), Inquiry No. Q20-6925HM, was issued through the Authority’s Ariba system and was advertised in the NYS *Contract Reporter* on March 24, 2020. A total of twelve (12) firms were invited into the Ariba Event with forty-five (45) firms having viewed the RFP on the Strategic Supply Management website. Seven (7) proposals were received through Ariba on June 12, 2020. The list of Bidders is below:

| <b>Company</b>                        | <b>Location</b>         |
|---------------------------------------|-------------------------|
| <b>GE Renewables US LLC</b>           | Greenwood Village, CO   |
| <b>Andritz Hydro Corp</b>             | Charlotte, NC           |
| <b>Voith Hydro, Inc.</b>              | York, PA                |
| <b>Gracon LLC</b>                     | Lafayette, CO           |
| <b>American Hydro</b>                 | Buffalo, NY             |
| <b>Hydro Tech USA Inc.</b>            | Sault Ste Marie, ON, CA |
| <b>Toshiba America Energy Systems</b> | Charlotte, NC           |

The Evaluation Committee, comprised of representatives from Strategic Supply Management, Mechanical Engineering, Project Delivery, Control Room Operations, Mechanical Maintenance, Quality Assurance, Environmental, Health and Safety, Project Management, and Program Controls, reviewed and evaluated the proposals based on the evaluation criteria established in the RFP which included: best value, proposal completeness, technical capabilities, ability to meet the schedule, experience in performing this type of work, and safety records.

The RFP event was also reviewed for compliance with the Executive Order (“EO”) 13920 “Securing the United States Bulk Power System”. After reviewing this EO, it was considered not applicable to this Contract. The proposals were also reviewed for compliance with the New York Buy American Act. After review, it was recommended that this requirement be waived based on the cost savings of 50% that would be realized to the Authority. Requirements for Minority and Women Business Enterprise and Service-Disabled Veteran-Owned Business were waived on this contract.

The current RM shafts are original to the plant and have been in service for 60 years. As such, it is not likely that the existing shafts will provide Authority’s Robert Moses Niagara Power Plant with another 60+ years of reliable service. At the Authority’s adjacent Lewiston Pump Storage Plant (“LPGP”), replacement of the shafts was not included in the base scope of the ongoing LPGP LEM Program, but the option to replace the shafts was immediately exercised when circumferential cracking was discovered upon the first unit disassembly. With this lesson learned and the Authority’s collaboration with hydropower technical leads from domestic and international plants from CEATI’s Hydraulic Plant Life Interest Group, it is in the Authority’s best interest to replace all the shafts.

GE was determined to be the best value based on its strength of experience, ongoing support throughout the life of the project, a well, thought-out project execution plan, high quality manufacturing processes, ability to address the Authority’s requirements and expectations, and best value proposal. This best value proposal also provides the competitive pricing that allows

for the replacement of all 13 shafts and streamlining manufacturing and the schedule over the course of this project.

The proposed spending for this contract is in alignment with the original program estimates for this work, which were approved by the Trustees at their July 2019 meeting and has been included in the approved Four-Year capital plan.

#### FISCAL INFORMATION

Payment associated with this Project will be made from the Authority's Capital Fund. Funding in the amount of \$224 million has been authorized to date for the Next Generation Niagara Program, which is estimated at \$1.1 billion, to complete preliminary engineering, conduct engineering and design, material procurement, implement limited construction, and Authority direct/indirect costs. Balance to be authorized at future Trustee meeting(s) is estimated at \$876 million for the remaining work associated with this program.

#### RECOMMENDATION

It is requested that the Finance and Risk Committee recommend that the Trustees approve a 15-year contract in the amount of \$18.1 million, which includes \$3.2 million in escalation over the life of the contract, to GE Renewables US LLC of Greenwood Village, CO for design, manufacture, and delivery of the shafts in support of the Next Generation Niagara Program – Mechanical and Electrical Upgrades Project. In addition, it is requested that the Finance and Risk Committee recommend that the Trustees waive the New York Buy America Act requirements regarding the purchase of steel components. For the reasons stated, I recommend the approval of the above-requested action by adoption of the resolution below.

Gil C. Quiniones  
President and Chief Executive Officer

## **RESOLUTION**

RESOLVED, That the Finance and Risk Committee recommends that the Trustees, pursuant to the Guidelines for Procurement adopted by the Authority and the Authority's Expenditure Authorization Procedures, approve the award of a 15-year contract to GE Renewables US LLC in the amount of \$18,100,000 for the design, manufacture, and delivery of the shafts in support of the Next Generation Niagara Program - Mechanical and Electrical Upgrades Project;

RESOLVED, That the Finance and Risk Committee recommends that the Trustees waive the requirements of the New York Buy America Act for this contract award;

RESOLVED, That the Authority will use Capital Funds, which may include proceeds of debt issuances, to finance the costs of the Next Generation Niagara – Mechanical and Electrical Upgrades Project – Shafts Procurement;

### **Contractor**

GE Renewables US LLC  
Greenwood Village, CO  
RFP # Q20-6925HM

### **Contract Approval**

\$18.1 million



**MINUTES OF THE JOINT MEETING  
OF THE FINANCE COMMITTEE  
November 17, 2020**

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Minutes of the joint meeting of the New York Power Authority and Canal Corporation's Finance Committee held via videoconference at approximately 9:30 a.m.

**Members of the Finance Committee present were:**

Tracy B. McKibben - Chair  
John R. Koelmel  
Eugene Nicandri  
Dennis Trainor  
Michael Balboni

Anthony Picente, Jr. – Excused

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**Also in attendance were:**

|                    |                                                                                |
|--------------------|--------------------------------------------------------------------------------|
| Gil Quiniones      | President and Chief Executive Officer                                          |
| Justin Driscoll    | Executive Vice President and General Counsel                                   |
| Adam Barsky        | Executive Vice President and Chief Financial Officer                           |
| Joseph Kessler     | Executive Vice President and Chief Operations Officer                          |
| Kristine Pizzo     | Executive Vice President and Chief Human Resources &<br>Administrative Officer |
| Sarah Salati       | Executive Vice President and Chief Commercial Officer                          |
| Keith Hayes        | Senior Vice President – Clean Energy solutions                                 |
| Yves Noel          | Senior Vice President – Strategy and Corporate Development                     |
| Soubhagya Parija   | Senior Vice President and Chief Risk Officer                                   |
| Robert Piascik     | Senior Vice President and Chief Information Officer                            |
| Phil Toia          | Senior Vice President – Power Supply                                           |
| Karen Delince      | Vice President and Corporate Secretary                                         |
| Daniella Piper     | Vice President – Digital Transformation / Chief of Staff                       |
| Anne Reasoner      | Vice President Budgets and Business Controls                                   |
| Scott Tetenman     | Vice President – Finance                                                       |
| Christina Reynolds | Treasurer                                                                      |
| Thakur Sundeep     | Controller                                                                     |
| Mary Cahill        | Manager – Executive Office                                                     |
| Christopher Vitale | Senior Finance Project Manager                                                 |
| Lorna Johnson      | Senior Associate Corporate Secretary                                           |
| Sheila Quatrocci   | Associate Corporate Secretary                                                  |
| Michele Stockwell  | Project Coordinator – Executive Office                                         |

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Chairperson Tracy McKibben presided over the meeting. Corporate Secretary Delince kept the Minutes.

**Introduction**

*Chairperson Tracy McKibben welcomed committee members and the Authority's senior staff to the meeting. She said that the meeting had been duly noticed as required by the Open Meetings Law and called the meeting to order pursuant to Section B(4) of the Finance Committee Charter.*

1. **Adoption of the November 17, 2020 Proposed Meeting Agenda**

On motion made by member Eugene Nicandri and seconded by member John Koelmel, the agenda for the meeting was adopted.

**Conflicts of Interest**

*Chairperson McKibben and members Koelmel, Nicandri, Balboni and Trainor declared no conflicts of interest based on the list of entities previously provided for their review.*

2. **Motion to Conduct an Executive Session**

***Mr. Chairman, I move that the Committee conduct an executive session to discuss the financial and credit history of a particular corporation and matters regarding public safety and security pursuant to Section 105 of the Public Officers Law.*** On motion made by member Dennis Trainor and seconded by member John Koelmel, the members conducted an executive session.

3. **Motion to Resume Meeting in Open Session**

***I move that the meeting resume in open session.*** On motion made by member Dennis Trainor and seconded by member John Koelmel, the meeting resumed in open session.

Chairperson McKibben said no votes were taken during the executive session.

#### **4. DISCUSSION AGENDA**

##### **a. Utility Operations**

##### **i. Right of Way Vegetation Maintenance – Contract Award**

The President and Chief Executive Officer submitted the following report:

##### **“SUMMARY**

The Trustees will be requested to approve the award of a non-personal services contract for Right-of-Way Vegetation Maintenance Services along the Authority’s transmission lines to Lewis Tree Service, Inc. (‘LTS’) of West Henrietta, NY for a total authorization amount of \$12 million for a four-year term effective January 1, 2021 through December, 2025.

The Finance Committee, is requested to recommend to the Trustees to approve the award of a competitively bid contract to Lewis Tree Services, Inc. (‘LTS’) of West Henrietta, NY, at its December 9, 2020 meeting in the amount of \$12 million for a four-year term through December 2025.

##### **BACKGROUND**

Section 2879 of the Public Authorities Law and the Authority’s Guidelines for Procurement Contracts require the Trustees’ approval of procurement contracts involving services to be rendered for a period in excess of one year. Also, in accordance with the Authority’s Expenditure Authorization Procedures, the award of construction services contracts in excess of \$6 million require the Trustees’ approval.

The single, largest cause of electric power outages is trees growing into or falling onto overhead power lines. The Federal Energy Regulatory Commission (‘FERC’), the North American Electric Reliability Corporation (‘NERC’) and the New York State Public Service Commission (‘PSC’) have all taken proactive steps to ensure that all utilities have a strong Integrated Vegetation Maintenance (‘IVM’) program in place. The Authority has implemented a vegetation maintenance treatment cycle that ensures it continues to be a leader in this now widely scrutinized and sensitive aspect of the utility industry.

This contract is for the control of undesirable target trees along over 20,000 acres or 1,400 miles of high voltage transmission lines over the course of a four-year cycle. These tall growing species will be removed by both mechanical means such as hand cutting with chainsaws or mowing and by chemical methods employing the selective use of herbicides in a cut-stump application or by low volume foliar treatments. Trees located along side of the transmission right-of-way will be cut down and properly disposed. Access roads shall be maintained free of all woody vegetation and all encroaching vegetation. Repairs will be made, as necessary, along these access roads.

##### **DISCUSSION**

##### **Construction Contractor RFQ, RFP and Contract Awards**

On September 2, 2020, a Request for Proposal (‘RFP’), No. Q20-7034DK, was advertised in the NY State *Contract Reporter* and the Authority’s procurement websites for Right-of-Way Vegetation Maintenance along the Authority’s transmission line system. Seven firms viewed the event notice on the Ariba platform with two firms submitting proposals on October 8, 2020. The proposals were reviewed by an Evaluation Committee from ROW Maintenance/ Environmental and Strategic Supply Management. The proposals were evaluated based on unit prices and hourly prices for each method and each year proposed by each bidder for the

estimated acres anticipated to be required over the term of the contract, and were applied to extrapolate the numbers out over the four-year period.

LTS was determined to be the lowest-priced, technically qualified bidder. LTS did not take any exceptions to the terms and conditions of the RFP documents and will meet the Minority/Women-Owned Business Enterprise ("M/WBE") requirements.

#### FISCAL INFORMATION

Funding for the Authority's Right-of-Way Vegetation Maintenance is provided from the Authority's operating and maintenance ('O&M') funds which is budgeted for on an annual basis.

#### RECOMMENDATION

The Senior Vice President – Power Supply is requesting the Finance Committee to recommend that the Trustees approve the award of a non-personal services contract for Right-of-Way Vegetation Maintenance Services along the Authority's transmission lines to Lewis Tree Service, Inc. ('LTS') of West Henrietta, NY for a total authorization amount of \$12 million for a four-year term through December, 2025.

For the reasons stated, I recommend the approval of the above-requested action by adoption of the resolution below."

*Mr. Phil Toia, Senior Vice President – Power Supply, provided highlights of staff's recommendation to the Committee.*

On motion made by member John Koelmel and seconded by member Michael Billboni, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

**RESOLVED, That the Finance Committee recommends that the Trustees, pursuant to the Guidelines for Procurement Contracts adopted by the Authority and the Authority's Expenditure Authorization Procedures, award a contract to Lewis Tree Services, Inc. of West Henrietta, NY for a total authorization amount of \$12 million to provide Right-of-Way Vegetation Maintenance Services along the Authority's transmission lines.**

| <u>Contractor</u>                               | <u>Contract Amount</u> |
|-------------------------------------------------|------------------------|
| Lewis Tree Services, Inc.<br>West Henrietta, NY | <u>\$12,000,000</u>    |

**b. Commercial Operations**

**i. Economic Development Customer Assistance Program –  
Temporary Power Assistance Initiative**

The President and Chief Executive Officer submitted the following report:

**SUMMARY**

As an enhancement to the Authority's Economic Development Customer Assistance Program which the Trustees approved on March 31, 2020, the Trustees will be requested at their December 9, 2020 meeting to authorize an initiative to make available for sale to Authority customers receiving power under the Recharge New York ('RNY'), Expansion Power ('EP'), Replacement Power ('RP'), and Preservation Power ('PP') programs (collectively, the 'Economic Development Power' or 'EDP' Programs) additional program power to be determined as a percentage of the customer's current allocation(s) on the terms and conditions discussed below. The amount of power to be made available under the initiative, to be known as Temporary Power Assistance ('TPA'), would not exceed in the aggregate 230 megawatts of unallocated EDP Program power (subject to statutory allocation limits) without additional Trustee approval. The Finance Committee is requested to recommend that the Trustees approve the Temporary Power Assistance Initiative.

**DISCUSSION**

Businesses across New York State, including many customers in the Authority's EDP Programs have been severely impacted by the COVID-19 pandemic. Many businesses have suffered significant losses in revenue, increased operating costs, and supply chain difficulties, and have had to curtail operations, reduce or eliminate capital spending, and/or reduce employment levels.

Given these unprecedented circumstances, the Trustees, at their March 31, 2020 meeting, approved an Economic Development Customer Assistance Program ('EDCAP') consisting of the following two components:

- (1) suspension of the Annual Adjustment Factor under applicable tariffs to energy and demand rates for customers in the Authority's EDP Programs, beginning with the adjustment that would have taken effect on July 1, 2020 for a period of one year from July 1, 2020 through June 30, 2021; and
- (2) an option for customers to defer payment of energy bills to the Authority, beginning with the April 2020 invoice, for up to 6 months, with repayment of deferred amounts to occur in equal installments over the subsequent 18-month period.

The COVID-19 pandemic continues to impact businesses statewide. Accordingly, to give the Authority's business customers additional options to help manage their energy costs, staff is recommending that the Trustees authorize the Authority to implement the TPA initiative as an additional component of EDCAP.

Under the TPA initiative, the Authority would make available for sale to EDP Program customers on a short-term and temporary basis additional program power determined as a percentage of the customer's current EDP Program allocation(s).

Staff envisions implementing the TPA initiative as follows:

- The Authority will notify customers in the EDP Programs of the TPA offering, and establish an initial application period and simple application process for interested

customers to apply for a supplemental increase to their power allocation within parameters developed by staff for each power program.

- Staff will evaluate applications and offer supplemental increases in accordance with established metrics and other appropriate considerations.
- Depending on the progress of the initial application round, the Authority could extend the initial application round or establish additional application rounds.
- As part of the application, customers will be required to supply relevant information, including copies of recent power bills, to enable staff to confirm the customer can use the additional power immediately.
- Customers will not be required to make additional job or capital investments commitments to qualify for a supplemental increase.
- Staff will use the information gathered during the application process to assess overall demand, assess resource availability, and, where necessary, adjust metrics for supplemental power offerings under each EDP Program.

Power for supplemental increases would be sourced from unallocated power under the respective EDP Programs (RNY, EP, RP and PP). The following is an estimate of the amount of power currently unallocated under each EDP Program: (1) RNY Power: 227,008 kilowatts;<sup>1</sup> EP: 63,595 kilowatts; RP: 90,836 kilowatts; and PP: 217,230 kilowatts.

The amount of supplemental power to be made available under TPA would not exceed in aggregate 230 megawatts of unallocated EDP Program power (subject to statutory allocation limits) without additional Trustee approval.

At this time, staff is requesting authorization to implement TPA through January 31, 2024.

The proposed TPA initiative is consistent with the purposes underlying the other elements of the EDCAP.

If the Trustees approve the TPA initiative, staff will report to the Trustees periodically on TPA implementation, including the metrics used to allocate supplemental increases, the supplemental increases made, and any recommended modifications to TPA.

#### FISCAL INFORMATION

The sale of supplemental power under the TPA will not have a negative fiscal impact on the Authority's finances.

#### RECOMMENDATION

It is requested that the Finance Committee recommend that the Trustees approve implementation of the Temporary Power Assistance ('TPA') initiative as described above for the Authority's Recharge New York ('RNY'), Expansion Power ('EP'), Replacement Power ('RP'), and Preservation Power ('PP') customers subject to the terms and conditions described above.

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<sup>1</sup> The Authority has nearly reached the statutory cap on the amount of RNY Power that may be allocated to not-for profit corporations and small businesses. Therefore, in the absence of an enactment increasing this cap, supplemental power for customers in these sectors will be extremely limited or unavailable.

For the reasons stated, I recommend the approval of the above-requested action by adoption of the resolution below.”

*Mr. Keith Hayes, Senior Vice President – Clean Energy Solutions, provided highlights of staff's recommendation to the Committee.*

On motion made by member John Koelmel and seconded by member Michael Balboni, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

**RESOLVED, That as an enhancement to the Authority's Economic Development Customer Assistance Program, the Finance Committee hereby recommends that the Trustees authorize the Authority to make available for sale to customers receiving power under the Recharge New York (“RNY”), Expansion Power (“EP”), Replacement Power (“RP”), and Preservation Power (“PP”) programs (collectively, the “Economic Development Power” or “EDP” Programs) supplemental power increases as part of a Temporary Power Assistance (“TPA”) initiative as described in the attached Report of the President and Chief Executive Officer; and be it further**

**RESOLVED, that the amount of supplemental power increases shall be determined as a percentage of the customer's current allocation(s) and in accordance with other criteria developed by the Authority, and sold pursuant to the rates and other terms and conditions provided for in the customer's contract, provided that the total amount of supplemental power made available under each EDP Program shall not exceed in aggregate 230 megawatts of unallocated EDP Program power (subject to statutory allocation limits); and be it further**

**RESOLVED, that sales of supplemental power under TPA shall not be made beyond January 31, 2024, and all supplemental power sold shall be subject to recall on reasonable notice to customers to allow the Authority to address demand for new and extended allocations under the EDP Programs; and be it further**

**RESOLVED, That staff shall report to the Trustees no less often than quarterly on the implementation of the TPA initiative, including the metrics used to allocate supplemental increases, overall customer response to the TPA, and any recommended modifications to the TPA; and be it further**

**RESOLVED, That the Chairman, the Vice Chairman, the President and Chief Executive Officer, the Chief Operating Officer and all other officers of the Authority are, and each of them hereby is, authorized on behalf of the Authority to do any and all things and take any and all actions and execute and deliver any and all agreements, certificates and other documents to effectuate the foregoing resolution, subject to the approval of the form thereof by the Executive Vice President and General Counsel.**

**c. Financial Operations**

**i. 2021 Budget and Filing of the Proposed 2021-2024 Budget and Four-Year Financial Plan Pursuant to Regulations of the Office of the State Comptroller**

The President and Chief Executive Officer submitted the following report:

**"SUMMARY"**

The Trustees will be requested at their December 9, 2020 meeting to approve the 2021 Budget for the Authority, specifically including the expenditures for the (i) 2021 Operations and Maintenance ('O&M') Budget (attached as Exhibit '4c i-A'), (ii) 2021 Capital Budget (attached as Exhibit '4c i-B'), (iii) 2021 Energy Services Budget (attached as Exhibit '4c i-C') and (iv) 2021 Canal Development Fund ('CDF') Budget (collectively, with Exhibits '4c i-A', '4c i-B', and '4c i-C', the '2021 Power Authority Budgets').

The 2021 Power Authority Budgets set forth the expected expenses of the Authority and include the recommended expenditures in the following amounts:

| <b><u>2021 Power Authority Budgets</u></b>   | <b><u>(\$ million)</u></b> |
|----------------------------------------------|----------------------------|
| <b>O&amp;M</b>                               | \$ 516.4                   |
| <b>Capital</b>                               | \$ 764.8                   |
| <b>Energy Services</b>                       | \$ 291.4                   |
|                                              |                            |
| <b><u>2021 Canal Corporation Budgets</u></b> | <b><u>(\$ million)</u></b> |
| <b>O&amp;M (Inc. CDF)</b>                    | \$ 111.6                   |
| <b>Capital</b>                               | \$ 40.3                    |

In accordance with regulations of the Office of the State Comptroller ('OSC'), the Trustees will also be requested at their December 9, 2020 meeting to approve the 2021-2024 Proposed Four-Year Budget and Financial Plan [attached as Exhibit '4c i-D' (in the form approved, the '2021-2024 Four-Year Budget and Financial Plan')] and authorize: (i) submitting the 2021-2024 Four-Year Budget and Financial Plan to OSC, (ii) posting the 2021-2024 Four-Year Budget and Financial Plan on the Authority's website, and (iii) making the 2021-2024 Four-Year Budget and Financial Plan available for public inspection at not less than five convenient public places throughout New York State.

The Finance Committee is requested to recommend that the Trustees (1) approve the Proposed 2021-2024 Four-Year Budget and Financial Plan, and (2) authorize (i) submitting the 2021-2024 Four-Year Budget and Financial Plan to the OSC in the prescribed format, (ii) posting the 2021-2024 Four-Year Budget and Financial Plan on the Authority's website, and (iii) making the 2021-2024 Four-Year Budget and Financial Plan available for public inspection at not less than five convenient public locations throughout New York State.

## BACKGROUND

The Authority is committed to providing clean, low-cost and reliable energy consistent with its commitment to the environment and safety, while promoting economic development and job development, energy efficiency, renewables and innovation, for the benefit of our customers and all New Yorkers. The mission statement of the Authority is to power the economic growth and competitiveness of New York State by providing customers with low-cost, clean, reliable power and the innovative energy infrastructure and services they value.

The New York State Canal Corporation (the 'Canal Corporation') became a subsidiary of the Authority effective January 1, 2017. The 2021 Power Authority Budgets include the budget information of the Authority and the Canal Corporation. Assumptions that were used by staff to prepare the 2021 Power Authority Budgets, and for forward periods, have been incorporated in the 2021-2024 Four-Year Budget and Financial Plan.

The 2021 Power Authority Budgets are intended to provide the Authority's operating facilities with, and support organizations by providing, the resources needed to meet the Authority's overall mission and the Authority's strategic objectives, and to fund the expenses of the Canal Corporation. Any transfers of funds from the Authority to the Canal Corporation would be subject to compliance with the Authority's General Resolution Authorizing Revenue Obligations, as amended and supplemented (the 'Revenue Bond Resolution'). Canal Development Fund expenses are expected to be reimbursed to the Authority by the State Comptroller with monies held in the New York State Canal System Development Fund as discussed in the attached Canal Corporation Budget report.

In approving the 2021 Power Authority Budgets, the Trustees will be authorizing spending for 2021 operations, spending for capital projects, and spending for general plant purchases of \$1.5 million or less. The requested headcount in the 2021 Power Authority Budgets will remain unchanged.

In accordance with the Authority's Expenditure Authorization Procedures, the President and Chief Executive Officer may, during the course of the year, authorize up to 15 new positions, new capital projects of \$6.0 million or less, or an increase in spending of no more than \$6.0 million to a capital project previously approved by the Trustees. All other spending authorizations must be approved by the Trustees.

The OSC implemented regulations in March 2006 addressing the preparation of annual budgets and four-year financial plans by 'covered' public authorities, including the Authority. (See 2 NYCRR Part 203 ('Part 203')). These regulations, which are discussed below, establish various procedural and substantive requirements relating to the budgets and financial plans of public authorities. The 2021-2024 Four-Year Budget and Financial Plan has been prepared in accordance with these regulations.

## DISCUSSION

### 2021 NEW YORK POWER AUTHORITY BUDGET

#### Operations & Maintenance

The 2021 O&M Budget of \$516.4 million reflects a continued concentration on the effective operation and maintenance of the Authority's critical investments in New York State's electric infrastructure and the continued support of NYPA's strategic investments. The 2021 O&M Budget includes the Astoria Energy II lease payment of \$21.2 million which represents the contractual O&M costs for the plant, which was placed in commercial operation in New York City in July 2011. These costs are being recovered from the Authority's New York City governmental customers, who are beneficiaries of the outputs of these projects under a long-term contract with the Authority.

The 2021 O&M Budget for Operations provides \$276.3 million for baseline, or recurring work. In addition to the baseline work, scheduled maintenance outages at the Zeltmann Plant and the Small Clean Power Plants (totaling \$5.0 million), and planned enhancements in non-recurring maintenance work at the operating facilities (totaling \$30.4 million), are designed to support high reliability goals. Some of the major non-recurring projects include: Crescent Dam B Abutment C Concrete Repairs (\$4.0 Million), Robert Moses Niagara Power Project ('RMNPP') Upper Headgate Rail Slot Refurbishment (\$2.7 Million), Headgate Refurbishment RMNPP (\$1.6 Million), RMNPP River Gorge Erosion Repair (\$1.2 million), Robert Moses Unit Lube Oil System Modernization (\$1.1 Million), and the SENY Zeltmann 500MW 80/20T Bridge Crane (\$1.0 Million).

### Capital

The 2021 Capital Budget totals \$764.8 million, which is a 42.4% increase over the 2020 Budget. Of this amount \$591.4 million – or 77.3% of the total – represents planned investments in the Authorities generation facilities as well as in the Authorities statewide transmission network. Significant capital projects for 2021 include: Moses Adirondack 1 & 2 Transmission Line Upgrade (\$113.5 million), Marcy-Scott Yard Transmission Upgrade (\$95.3 million), Communications Backbone (\$53.2 million), RMNPP Transmission LEM (\$36.2 million), Strategic EV Charging Stations Installation (\$33.6 million), Lewiston Pump Generation Plant ('LPGP') LEM (\$26.1 million), RMNPP Controls LEM (\$23.2 million).

### Energy Services

The 2021 Energy Services Budget totals \$291.4 million, an increase of \$34.2 million from the 2020 Energy Services Budget. These expenditures will be subsequently recovered over time from the benefiting customers. The 2021 Energy Services Budget Includes Funding for energy efficiency projects for Authority customers and other eligible entities as the Authority strives to support the State's improved energy efficiency and clean, renewable energy goals.

## 2021 CANAL CORPORATION BUDGET

### Operations & Maintenance

The 2021 Total O&M Budget for Operations includes \$111.6 million for the Canal Corporation for the purposes described in the 2021 Canal Corporation Budget report being presented to the Canal Corporation Board of Directors at this December 2020 meeting. This figure, \$111.6 million, is made up of \$109.7 million in O&M for Canal Corporation in 2021 and \$1.9 million for the Canal Development Fund in 2021.

### Canal Development Fund

The 2021 Canal Development Fund Budget totals \$1.9 million, representing ongoing costs associated with the New York State Canal System Development Fund ('Canal Development Fund').

The Canal Development Fund, created by State Finance Law §92-u, is a fund established in the joint custody of the State Comptroller and the Commissioner of Taxation and Finance. The Canal Development Fund consists largely of revenues received from the operation of the Canal System. Monies of the Canal Development Fund, following appropriation by the legislature, is made available to the Authority, and may be expended by the Authority or the Canal Corporation for the maintenance, construction, reconstruction, development or promotion of the Canal System. In addition, monies of the Canal Development Fund may be used for the purposes of interpretive signage and promotion for appropriate historically significant Erie Canal lands and related sites. Monies from the Canal Development Fund are paid out by the State Comptroller on certificates issued by the Director of the Budget.

Capital

The 2021 Capital Budget includes \$40.3 million for the Canal Corporation for the purposes described to the Finance Committee at this meeting and will be presented to the Canal Corporation Board of Directors at its December 2020 meeting.

2021-2024 Four-Year Budget and Financial Plan

Under Part 203 of the OSC Regulations, the Trustees are required to adopt a Four-Year Budget and Financial Plan. The approved Four-Year Budget and Financial Plan must be available for public inspection not less than seven days before the commencement of the next fiscal year for a period of not less than 45 days and in not less than five convenient public places throughout the State. The approved Four-Year Budget and Financial Plan must also be submitted to OSC, via electronic filing through the Public Authorities Reporting Information System, within seven days of approval by the Trustees. The regulations also require the Authority to post the approved Four-Year Budget and Financial Plan on its website.

Under Part 203, each Four-Year Budget and Financial Plan must be shown on both an accrual and cash basis and be prepared in accordance with generally accepted accounting principles; be based on reasonable assumptions and methods of estimation; be organized in a manner consistent with the public authority's programmatic and functional activities; include detailed estimates of projected operating revenues and sources of funding; contain detailed estimates of personal service expenses related to employees and outside contractors; list detailed estimates of non-personal service operating expenses and include estimates of projected debt service and capital project expenditures.

Other key elements that must be incorporated in each Four-Year Budget and Financial Plan are a description of the budget process and the principal assumptions, as well as a self-assessment of risks to the budget and financial plan. Additionally, each Four-Year Budget and Financial Plan must include a certification by the Chief Operating Officer.

The first year of the 2021-2024 Four-Year Budget and Financial Plan is based on the 2021 Power Authority Budgets being brought to the Board for approval at this time. The remaining three years are indicative forecasts.

FISCAL INFORMATION

Payment of O&M expenses will be made from the Operating Fund. Any transfers of funds from the Authority for payment O&M expenses of the Canal Corporation would be subject to approval by the Authority's Board of Trustees and compliance with the Authority's Revenue Bond Resolution.

Payment for Capital and Energy Services expenditures will be made from the Capital Fund and the Energy Conservation Construction and Effectuation Fund, respectively. Monies of up to \$805.1 million from the Operating Fund will be transferred to the Capital Fund for capital expenditures, subject to compliance with the Revenue Bond Resolution.

The 2021 Operating Budget shows adequate earnings levels so that the Authority may maintain its financial goals for cash flow and reserve requirements.

The 2021-2024 Four-Year Budget and Financial Plan's net income estimates for each of the years 2021 through 2024 are indicative forecasts. The Trustees are not being asked to approve any revenue and expenditure amounts for those years at this time.

RECOMMENDATION

The Chief Financial Officer is requesting the Finance Committee recommend that the Trustees approve the 2021 Budget for the Power Authority, specifically including the expenditures for the (i) 2021 Operations and Maintenance Budget, (ii) 2021 Capital Budget, (iii) 2021 Energy Services Budget and (iv) 2021 Canal Development Fund Budget, each as discussed herein.

In connection with the 2021 Capital Budget, the Chief Financial Officer recommends the Finance Committee recommends that the Trustees authorize the transfer of up to \$805.1 million from the Operating Fund to the Capital Fund, subject to compliance with the Revenue Bond Resolution.

The Chief Financial Officer further requests the Finance Committee recommends that the Trustees (1) approve the 2021-2024 Four-Year Budget and Financial Plan, and (2) authorize (i) submitting the 2021-2024 Four-Year Budget and Financial Plan to the OSC in the prescribed format, (ii) posting the 2021-2024 Four-Year Budget and Financial Plan on the Authority's website, and (iii) making the 2021-2024 Four-Year Budget and Financial Plan available for public inspection at not less than five convenient public locations throughout New York State.

For the reasons stated, I recommend the approval of the above-requested actions by adoption of the resolution below."

*Mr. Adam Barsky, Executive Vice President and Chief Financial Officer, provided highlights of staff's recommendation to the Committee.*

On motion made by member Dennis Trainor and seconded by member John Koelmel, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

**RESOLVED, That the Finance Committee hereby recommends that the Trustees approve the 2021 Budget for the Power Authority, specifically including the expenditures for the (i) 2021 Power Authority Operations and Maintenance Budget, (ii) 2021 Capital Budget, (iii) 2021 Energy Services Budget and (iv) 2021 Canal Development Fund Budget, each as discussed in the attached report of the President and Chief Executive Officer; and be it further**

**RESOLVED, That the Finance Committee recommends that the Trustees authorize up to \$805.1 million of monies in the Operating Fund are hereby authorized to be withdrawn from such Fund and deposited in the Capital Fund, provided that at the time of withdrawal of such amount or portions of such amount, the monies withdrawn are not then needed for any of the purposes specified in Sections 503(1)(a)-(c) of the General Resolution Authorizing Revenue Obligations as amended and supplemented, with the satisfaction of such condition being evidenced by a certificate of the Treasurer or the Deputy Treasurer; and be it further**

**RESOLVED, That the Finance Committee recommends that the Trustees, pursuant to 2 NYCRR Part 203, approve the Proposed 2021-2024 Four-Year Budget and Financial Plan, including its certification by the Chief Operating Officer, in accordance with the foregoing report of the President and Chief Executive Officer; and be it further**

**RESOLVED, That the Finance Committee recommends that the Trustees, pursuant to 2 NYCRR Part 203, authorize the Corporate Secretary to submit the proposed 2021-2024 Four-Year Budget and Financial Plan to the Office of the State Comptroller in the prescribed format, post the proposed 2021-2024 Four-Year Budget and Financial Plan on the Authority's website and make the 2021-2024 Four-Year Budget and Financial Plan available for public inspection at not less than five convenient public places throughout New York State.**

ii. **2021 Canal Corporation Budgets**

The President and Chief Executive Officer submitted the following report:

**"SUMMARY"**

The Canal Corporation Board of Directors ('Canal Board') will be requested at their December 9, 2020 meeting to approve the 2021 Budget for the Canal Corporation, specifically including expenditures for the (i) 2021 Operations and Maintenance ('O&M') Budget (attached as Exhibit '4c ii-A'), (ii) 2021 Capital Budget (attached as Exhibit '4c ii-B'), (iii) 2021 Canal Development Fund Budget (collectively, with Exhibits '4c ii-A' and '4c ii-B' the '2021 Canal Corporation Budgets').

The 2021 O&M and Capital Budgets set forth the expected expenses of the Canal Corporation and include the recommended expenditures in the following amounts:

| <b><u>2021 Canal Corporation Budgets</u></b> | <b><u>(\$ million)</u></b> |
|----------------------------------------------|----------------------------|
| <b>O&amp;M (Inc. CDF)</b>                    | <b>\$ 111.6</b>            |
| <b>Capital</b>                               | <b>\$ 40.3</b>             |

The Finance Committee is requested to recommend that the Canal Board approve the 2021 Canal Corporation Budgets.

**BACKGROUND**

The Canal Corporation is authorized to operate, maintain, construct, reconstruct, improve, develop, finance, and promote the New York State canal system (the 'Canal System').

The 2021 Canal Corporation Budgets are intended to provide the Canal Corporation with the resources needed to meet the Canal Corporation's overall mission and objectives.

**DISCUSSION**

**2021 Canal Corporation O&M Budget**

The 2021 O&M Budget of \$111.6 million reflects a concentration on the effective operation and maintenance of the Canal Corporation's critical investments in the Canal System. This figure is comprised of \$109.7 million in O&M for Canal Corporation in 2021 and \$1.9 million for the Canal Development Fund in 2021.

The 2021 O&M Budget for Operations provides appropriations for baseline, or recurring work, along with programs which have been created to more safely and effectively manage on-going operations. Significant projects in 2021 are: State Wide Public Safety (\$1.7 million), Fairport Lift Bridge (\$1.0 million), EAR Dev 9 Waste Weir Dams (\$1.0 million), and Dam Safety Consultants and Engineering (\$0.6 Million).

**2021 Canal Development Fund Budget**

The 2021 Canal Development Fund Budget totals \$1.9 million, representing ongoing costs associated with the New York State Canal System Development Fund ('Canal Development Fund').

The Canal Development Fund, created by State Finance Law §92-u, is a fund established in the joint custody of the State Comptroller and the Commissioner of Taxation and Finance. The Canal Development Fund consists largely of revenues received from the operation of the Canal System.

Monies of the Canal Development Fund, following appropriation by the legislature, is made available to the Power Authority, and may be expended by the Power Authority or the Canal Corporation for the maintenance, construction, reconstruction, development or promotion of the Canal System. In addition, monies of the Canal Development Fund may be used for the purposes of interpretive signage and promotion for appropriate historically significant Erie Canal lands and related sites. Monies from the Canal Development Fund are paid out by the State Comptroller on certificates issued by the Director of the Budget.

#### 2021 Capital Budget

The 2021 Capital Budget totals \$40.3 million, representing on going, and new capital projects. Significant projects in 2021 are Embankment Rehabilitation Program (\$3.1 million), Court Street Dam Rehabilitation (\$1.9 Million), and the Lock E-7 Pump-out (\$1.7 Million).

#### FISCAL INFORMATION

The Canal Corporation's O&M, Capital and Canal Development Fund expenses are expected to be funded by transfers of funds from the Power Authority. Any transfers of funds from the Power Authority to the Canal Corporation would be subject to approval by the Power Authority's Board of Trustees and compliance with the Power Authority's General Resolution Authorizing Revenue Obligations, as amended and supplemented.

Canal Development Fund expenses are expected to be reimbursed to the Power Authority by the State Comptroller with monies held in the Canal Development Fund as discussed above.

#### RECOMMENDATION

The Chief Financial Officer requests the Finance Committee recommends that the Canal Corporation Board of Directors approve the 2021 Canal Corporation Budgets, specifically including the expenditures for (i) 2021 Operations and Maintenance Budget, (ii) 2021 Capital Budget, and (iii) 2021 Canal Development Fund Budget, each as discussed herein.

For the reasons stated, I recommend the approval of the above-requested actions by adoption of the resolution below."

*Mr. Adam Barsky, Executive Vice President and Chief Financial Officer, provided highlights of staff's recommendation to the Committee.*

On motion made by member Dennis Trainor and seconded by member John Koelmel, the following resolution as recommended by the President and Chief Executive Officer was unanimously adopted.

**RESOLVED, That the Finance Committee hereby recommends that the Canal Corporation Board of Directors approve the 2021 Canal Corporation Budgets, specifically including the expenditures for the (i) 2021 Operations and Maintenance Budget, (ii) 2021 Capital Budget, and (iii) 2021 Canal Development Fund Budget, each as discussed in the foregoing report of the President and Chief Executive Officer; and be it further**

**RESOLVED, That the Finance Committee recommends that the Canal Corporation Board of Directors acknowledge that any transfers of funds from the Power Authority to the Canal Corporation would be subject to approval by the Power Authority's Board of Trustees and compliance with the Power Authority's**

**General Resolution Authorizing Revenue Obligations, as amended  
and supplemented.**

iii. **Release of Funds in Support of the  
New York State Canal Corporation**

The President and Chief Executive Officer submitted the following report:

**SUMMARY**

The Trustees will be requested at their December 9, 2021 meeting to authorize the release of an additional up to \$27.9 million in funding to the New York State Canal Corporation ('Canal Corporation') to support the operations of the Canal Corporation in calendar year 2021. The amount requested is 25% of the Canal Corporation's 2021 O&M Budget. 2021

The Finance Committee is requested to recommend to the Trustees the release of this additional funding.

**BACKGROUND**

The Authority has been authorized to provide financial support for the Canal Corporation. See, e.g., Public Authorities Law §1005-b(2). However, certain expenditures associated therewith do not constitute Capital Costs or Operating Expenses ('Operating Expenses') as defined in the Authority's General Resolution Authorizing Revenue Obligations dated February 24, 1998, as amended and supplemented ('Bond Resolution'). Expenditures for the Canal Corporation's operating purposes that do not constitute Capital Costs or Operating Expenses must satisfy the requirements of the Authority's Bond Resolution relating to the release of funds from the trust estate created by the Bond Resolution for lawful corporate purposes. In addition, as set forth in the Trustees' Policy Statement dated May 24, 2011, a debt service coverage ratio of 2.0 is to be used as a reference point in considering any such release of funds.

The Bond Resolution permits the Authority to withdraw monies 'free and clear of the lien and pledge created by the [Bond] Resolution' provided that (a) such withdrawals must be for a 'lawful corporate purpose as determined by the Authority,' and (b) the Authority must determine, taking into account among other considerations anticipated future receipt of revenues or other moneys constituting part of the Trust Estate, that the funds to be so withdrawn are not needed for (i) payment of reasonable and necessary operating expenses, (ii) an Operating Fund reserve in amounts determined by the Authority to be adequate for working capital, emergency repairs or replacements, major renewals or for retirement from service, decommissioning or disposal of facilities, (iii) payment of, or accumulation of a reserve for payment of, interest and principal on senior debt or (iv) payment of interest and principal on subordinate debt.

Under the Bond Resolution, Capital Costs (which includes capital costs related to the Canal Corporation) may be paid without satisfying the provision described above.

**DISCUSSION**

With this authorization, the Trustees will have authorized the release of a cumulative \$27.9 million, an amount equal to 25% of the Canal Corporation's 2021 O&M Budget. With regard to Canal Corporation's operating expenses in excess of \$111.6 million in calendar year 2021, staff is not requesting any action at this time, but will return to the Board to request additional releases as needed.

Staff has reviewed the effect of releasing up to an additional \$27.9 million in funding at this time on the Authority's expected financial position and reserve requirements. In accordance with the Board's Policy Statement adopted May 24, 2011, staff calculated the impact of this release, together with the last 12 months releases including (i) the release of \$30 million in Recharge New York Discounts for 2020, (ii) the release of up to \$91.0 million in Canal-related operating expenses for 2020, (iii) the release of up to

\$2 million in Western NY Power Proceeds net earnings, and (iv) the release of up to \$1 million in Northern NY Power proceeds net earnings, on the Authority's debt service coverage and determined it would not fall below the 2.0 reference level. Based on the Authority's Four-Year Budget and Financial Plan, the 2.0 reference point level is forecasted to be met at each year-end of the forecast period 2021-2024. Given the current financial condition of the Authority, its estimated future revenues, operating expenses, debt service and reserve requirements, staff is of the view that it will be feasible for the Authority to release such amounts from the trust estate created by the Bond Resolution consistent with the terms thereof.

#### FISCAL INFORMATION

Staff has determined that sufficient funds are available in the Operating Fund to release an additional up to \$27.9 million in funding to support the operation of the Canal Corporation in calendar year 2021. Staff has further determined that the amounts presently held in reserves in the Operating Fund are adequate for the purposes specified in Section 503.2 of the Authority's Bond Resolution and that such Authority funds are not needed for any of the purposes specified in Section 503(1)(a)-(c) of the Authority's Bond Resolution.

The expenses associated with the operations of the Canal Corporation for calendar year 2021 were included in the Canal Corporation's 2021 O&M Budget and the Authority's 2021 Budget.

#### RECOMMENDATION

The Chief Financial Officer requests that the Finance Committee recommend that the Trustees authorize the release of an additional up to \$27.9 million in funding to the Canal Corporation to support the operations of the Canal Corporation in calendar year 2021. The Chief Financial Officer further recommends that the Finance Committee recommend the Trustees affirm that such release is feasible and advisable, that the amounts presently set aside as reserves in the Operating Fund are adequate for the purposes specified in Section 503.2 of the Authority's Bond Resolution, and that the amount of up to \$27.9 million is not needed for any of the purposes specified in Section 503(1)(a)-(c) of the Authority's Bond Resolution.

For the reasons stated, I recommend the approval of the above-requested action by adoption of the resolution below."

*Mr. Adam Barsky, Executive Vice President and Chief Financial Officer, provided highlights of staff's recommendation to the Committee.*

On motion made by member John Koelmel and seconded by member Dennis Trainor, the following resolution as recommended by the President and Chief Executive Officer was unanimously adopted.

**RESOLVED, That the Finance Committee recommends that the Trustees authorize the release of an additional up to \$27.9 million in funding to the Canal Corporation to support operations of the Canal Corporation in calendar year 2021, as discussed in the foregoing report of the President and Chief Executive Officer; and be it further**

**RESOLVED, That the Finance Committee recommends that the Trustee affirm that the amounts presently set aside as reserves in the Operating Fund are adequate for the purposes specified in Section 503.2 of the Authority's Bond Resolution, that the amount of up to \$27.9 million in funding as described in**

the foregoing report is not needed for any of the purposes specified in Section 503(1)(a)-(c) of the Authority's General Resolution Authorizing Revenue Obligations, as amended and supplemented, and that the release of such amount is feasible and advisable; and be it further

**RESOLVED**, That the Finance Committee recommends that the Trustee affirm that as a condition to making the payments specified in the foregoing report, on the day of such payments, the Treasurer shall certify that such monies are not then needed for any of the purposes specified in Section 503(1)(a)-(c) of the Authority's General Resolution Authorizing Revenue Obligations, as amended and supplemented; and be it further

**RESOLVED**, That the Finance Committee recommends that the Trustee affirm that the Chairman, the Vice Chairman, the President and Chief Executive Officer, the Chief Operating Officer, the Executive Vice President and General Counsel, the Executive Vice President and Chief Financial Officer, the Corporate Secretary, the Treasurer and all other officers of the Authority be, and each of them hereby is, authorized and directed, for and in the name and on behalf of the Authority, to do any and all things and take any and all actions and execute and deliver any and all certificates, agreements and other documents that they, or any of them, may deem necessary or advisable to effectuate the foregoing resolution, subject to approval as to the form thereof by the Executive Vice President and General Counsel.

iv. **Release of Funds in Support of the Residential Consumer Discount Program Created in Connection with the Recharge New York Power Program**

The President and Chief Executive Officer submitted the following report:

**SUMMARY**

The Trustees will be requested, at their December 9, 2020 meeting, to approve the release of \$30.0 million in funds during 2020 in support of the monthly Residential Consumer Discount Program created in connection with the Recharge New York ('Recharge NY') Power Program, as authorized by Chapter 60 of the Laws of 2011 ('Chapter 60'). The funds are to be released monthly at a level of \$2.5 million per month. It is estimated that the \$30.0 million authorized for the Residential Discounts in 2020 will be entirely off-set from (1) Recharge NY hydropower allocated and sold to Recharge NY customers, and (2) unallocated Recharge NY hydropower sold into the wholesale market.

The Finance Committee is requested to recommend that the Trustees approve the release of \$30 million in funds during 2020 in support of the Residential Consumer Discount Program.

**BACKGROUND**

The Authority is requested, from time to time, to make financial contributions and transfers of funds to the State or to otherwise provide financial support for various State programs including the Residential Consumer Discount Program related to Recharge NY.

Any such contribution or transfer of funds must (1) be authorized by the Legislature; (2) be approved by the Trustees 'as feasible and advisable,' and (3) satisfy the requirements of the Authority's General Resolution Authorizing Revenue Obligations dated February 24, 1998, as amended and supplemented ('Bond Resolution'). Further, as set forth in the Trustees' Policy Statement dated May 24, 2011, a debt service coverage ratio of 2.0 shall be used as a reference point in considering any such payments or transfers.

The Bond Resolution's requirements to withdraw monies 'free and clear of the lien and pledge created by the [Bond] Resolution' are such that withdrawals (a) must be for a 'lawful corporate purpose as determined by the Authority,' and (b) the Authority must determine, taking into account, among other considerations, anticipated future receipt of revenues or other moneys constituting part of the Trust Estate, that the funds to be so withdrawn are not needed for (i) payment of reasonable and necessary operating expenses, (ii) an Operating Fund reserve for working capital, emergency repairs or replacements, major renewals or for retirement from service, decommissioning or disposal of facilities, (iii) payment of, or accumulation of a reserve for payment of, interest and principal on senior debt or (iv) payment of interest and principal on subordinate debt.

**DISCUSSION**

In March 2011, Governor Cuomo signed into law legislation creating the Recharge NY Power Program. The Program utilizes 455 megawatts ('MW') of the firm power from the Authority's Niagara and St. Lawrence hydroelectric facilities, combined with market-based power purchases, forming a new, 910-megawatt economic development power program to replace and expand upon the Power For Jobs ('PFJ') and Energy Cost Savings Benefits ('ECSB') economic development programs.

As part of the Recharge NY Power Program, the Authority, on August 1, 2011, withdrew all 455 MW of the firm hydroelectric power previously sold to certain utility companies for the benefit of their residential consumers. To mitigate the price impacts of this withdrawal on the residential consumers, the Authority was authorized by Chapter 60, as deemed feasible and advisable by the Trustees, to fund monthly 'Residential Consumer Discount Program' payments for the benefit of such consumers on a

declining schedule. For each of the first three years following the withdrawal, the Authority is authorized to provide \$100 million per year to fund the discounts. In years four and five following the withdrawal, the Authority is authorized to fund discounts of \$70 million and \$50 million, respectively. Beginning in year six following the withdrawal, and for each year thereafter, the Authority is authorized to fund discounts of \$30 million per year.

The Authority is authorized to use the revenues from the sale of the withdrawn power, together with any other funds of the Authority as the Trustees may deem feasible and advisable, to support the Residential Consumer Discount Program. The net cost to the Authority of the Residential Discounts after taking into account the resale of the power following the withdrawal from its prior use to supply certain utility companies for the benefit of their residential consumers, is projected to be entirely off-set from (1) Recharge NY hydropower allocated and sold to Recharge NY customers, and (2) unallocated Recharge NY hydropower sold into the wholesale market during 2021. Given the volatility in market prices, however, there is no assurance that the sale of this power will produce sufficient revenues to cover this amount of the residential discounts.

The Trustees have previously approved the release of funds in support of the Residential Consumer Discount Program, the most recent action being taken at the January 2020 meeting. Under consideration today are payments for 2021. Staff intends to return to the Trustees with a recommendation as to the release of any future amounts related to the Residential Consumer Discount Program based on how the overall program is progressing as well as the financial circumstances of the Authority at the time such payments are to be considered.

Staff has reviewed the effects of the \$30.0 million in anticipated payments of the Residential Consumer Discount Program on the Authority's projected financial position and reserve requirements. In addition, in accordance with the Board's Policy Statement, staff calculated the impact of this release, together with the last 12 months' releases, including (i) the release of up to \$91.0 million in Canal-related operating expenses for, (ii) the release of up to \$27.9 million in Canal-related operating expenses for 2021 to be authorized on December 9, 2020; (iii) the release of up to \$2 million in Northern NY Power Proceeds net earnings authorized in September 2020, and (iii) the release of up to \$1 million in Western NY Power Proceeds net earnings authorized in September 2020, on the Authority's debt service coverage ratio and determined it would not fall below the 2.0 reference level. Based on the Authority's Four Year Budget and Financial Plan, the 2.0 reference point level is forecasted to be met for each year-end of the forecast period 2021-2024. Given the current financial condition of the Authority, its estimated future revenues, operating expenses, debt service and reserve requirements, staff is of the view that it will be feasible for the Authority to provide \$30.0 million of the Residential Consumer Discount Program at this time.

#### FISCAL INFORMATION

Staff has determined that sufficient funds are available in the Operating Fund to provide \$30.0 million in support for the Residential Consumer Discount Program authorized by Chapter 60 at this time, and that such Authority funds are not needed for any of the purposes specified in Section 503(1)(a)-(c) of the Authority's Bond Resolution. The release of \$30.0 million associated with the Residential Consumer Discount Program payments was anticipated and reflected in the Power Authority's 2021 Operating Budget approved by the Trustees at their December 9, 2020 meeting. The net cost to the Authority of the Residential Consumer Discounts, after taking into account the resale of the power following the withdrawal from its prior use to supply certain utility companies for the benefit of their residential consumers, is projected to be entirely off-set from Recharge NY hydropower allocated and sold to Recharge NY customers and unallocated Recharge NY hydropower sold into the wholesale market during 2020. These monthly payments will be recorded as an expense at the time of payment.

RECOMMENDATION

It is requested that the Finance Committee recommend that the Trustees approve that the release of \$30.0 million during 2021 to support the Residential Consumer Discount Program.

For the reasons stated, I recommend the approval of the above-requested action by adoption of the resolution below.”

*Mr. Adam Barsky, Executive Vice President and Chief Financial Officer, provided highlights of staff's recommendation to the Committee.*

On motion made by member John Koelmel and seconded by member Eugene Nicandir, the following resolution as recommended by the President and Chief Executive Officer was unanimously adopted.

**RESOLVED, That the Finance Committee hereby recommends that the Trustees authorize the release of \$30.0 million from the Operating Fund during 2021 to support the monthly Residential Consumer Discount Program as authorized by Chapter 60 of the Laws of 2011 and as discussed in the foregoing report of the President and Chief Executive Officer.**

**d. Risk Management**

**i. Risk Management Update**

Mr. Soubhagya Parija, Senior Vice President and Chief Risk Officer, and Mr. Thomas Spencer, Senior Director of Enterprise Risk, provided an update of Risk Management's activities, to date (Exhibit "4d i-A").

Mr. Parija said that Risk Management will be presenting the revamped Key Risk Indicator (KRI) Dashboard to the Committee. He said Risk Management tracks many different KRIs which are linked to the top enterprise risks and Mr. Spencer will be discussing 13 KRIs which covers a large part of NYPA's landscape.

**Key Risk Indicators**

Mr. Spencer provided an update on the KRIs. He said that the KRI dashboard will provide visibility into key risks using enterprise-wide metrics. The enterprise-wide KRIs are, in many cases, a summation of multiple underlying metrics consolidated to the enterprise levels.

The new format will use "red," "yellow" and "green" stoplight indicators to provide the Trustees a quick overview across NYPA's Risk Profile based on quantitative thresholds.

Throughout the KRI development and review process, Risk Management strived to strike the right balance between warning indicator notifications and the right level of escalation. Risk Management did this by using thresholds to ensure the right information was given to the right people at the right time to make informed decisions.

There are 13 KRIs separated into 5 categories spanning Project Execution, Financial, Cyber Security, Human Resources and Merchant Portfolio risks.

Of the 13 KRIs, currently there are none in the "red" threshold category. Three KRIs are at the "yellow" level threshold.

The primary reason for the yellow warning indicator is due to Covid-19 and its impact on items such as project timing, decreased demand, and lower energy prices. As NYPA works through the challenges of the pandemic and Return-to-Work, these indicators are expected to trend in a more positive direction.

Risk Management will continue to monitor these and other KRIs to ensure the trends being followed track as expected.

The remaining 10 KRIs are all at the "green" threshold level.

At the request of Chair McKibben, Risk Management provided a comprehensive list of almost 100 KRIs. These KRIs, along with other pertinent risk information, are being housed in the EGRC Tool and will be used for subsequent leadership reporting in the upcoming months.

5. **CONSENT AGENDA:**

a. **Approval of the Minutes of the Joint Meeting held on September 23, 2020**

On motion made by member Dennis Tranor and seconded by member John Koelmel, the Minutes of the Joint Meeting held on September 23, 2020 were approved.

**6. Next Meeting**

Chairperson Tracy McKibben said that the next regular meeting of the Finance Committee is to be determined.

**Closing**

On motion made by member Dennis Trainor and seconded by member John Koelmel, the meeting was adjourned by Chairperson McKibben at approximately 11:36 a.m.

*Karen Delince*

Karen Delince  
Corporate Secretary

# **EXHIBITS**

## **For**

### **November 17, 2020**

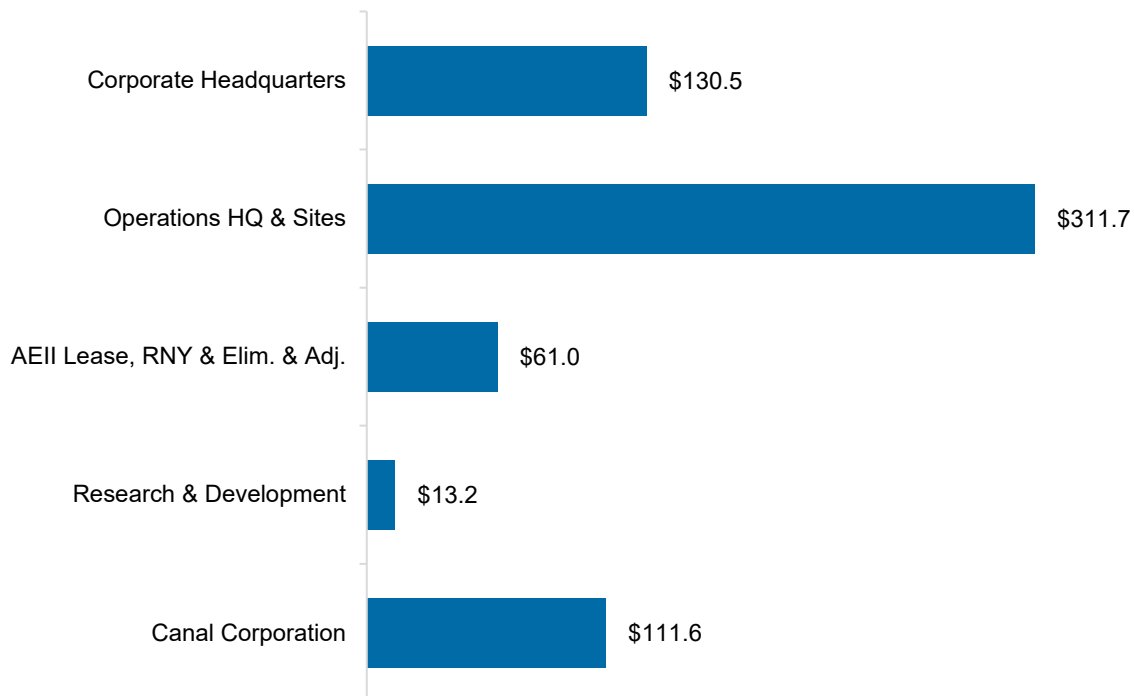
### **Meeting Minutes**

# EXHIBIT 4c i-A

|                                             | 2020 Adopted Budget | 2021 Requested Budget | Inc/(Dec) Change (\$) | Inc/(Dec) Change (%) |
|---------------------------------------------|---------------------|-----------------------|-----------------------|----------------------|
| Executive                                   | \$ 6.3              | \$ 5.6                | \$ (0.7)              | -10.9%               |
| Law                                         | \$ 9.9              | \$ 9.1                | \$ (0.8)              | -8.3%                |
| Internal Audit                              | \$ 4.5              | \$ 4.4                | \$ (0.2)              | -3.4%                |
| Public & Regulatory Affairs                 | \$ 7.7              | \$ 7.0                | \$ (0.7)              | -8.9%                |
| <b>Executive Offices</b>                    | <b>\$ 28.4</b>      | <b>\$ 26.1</b>        | <b>\$ (2.3)</b>       | <b>-8.3%</b>         |
| EVP Commercial Operations                   | \$ 1.5              | \$ 1.4                | \$ (0.1)              | -8.1%                |
| Marketing & Product Development             | \$ 1.1              | \$ 2.2                | \$ 1.1                | 99.4%                |
| Project & Business Development              | \$ 3.0              | \$ 4.1                | \$ 1.0                | 33.3%                |
| Energy Resource Management                  | \$ 1.0              | \$ 1.0                | \$ (0.0)              | -2.7%                |
| E-Mobility & Grid Flexibility               | \$ 1.4              | \$ 0.7                | \$ (0.7)              | -51.3%               |
| NY Energy Manager                           | \$ 0.3              | \$ 0.0                | \$ (0.3)              | -91.6%               |
| <b>Commercial Operations</b>                | <b>\$ 8.4</b>       | <b>\$ 9.3</b>         | <b>\$ 0.9</b>         | <b>11.3%</b>         |
| EVP & CFO Business Services                 | \$ 1.1              | \$ 1.0                | \$ (0.1)              | -9.5%                |
| Budgets & Business Controls                 | \$ 2.9              | \$ 3.1                | \$ 0.2                | 6.3%                 |
| Controller                                  | \$ 6.0              | \$ 5.5                | \$ (0.5)              | -9.0%                |
| Financial Operations                        | \$ 0.4              | \$ 0.3                | \$ (0.0)              | -11.5%               |
| Finance                                     | \$ 1.1              | \$ 1.3                | \$ 0.1                | 13.4%                |
| Treasury                                    | \$ 2.0              | \$ 2.2                | \$ 0.2                | 9.8%                 |
| Risk Management                             | \$ 7.4              | \$ 4.4                | \$ (3.0)              | -40.0%               |
| <b>Business Services</b>                    | <b>\$ 20.9</b>      | <b>\$ 17.8</b>        | <b>\$ (3.1)</b>       | <b>-14.9%</b>        |
| SVP Corporate Strategy                      | \$ 2.2              | \$ 3.2                | \$ 1.0                | 44.8%                |
| Strategic Management                        | \$ 0.0              | \$ 1.4                | \$ 1.3                | 3085.5%              |
| Empire Line                                 | \$ 1.7              | \$ 1.0                | \$ (0.7)              | -41.8%               |
| <b>Corporate Strategy</b>                   | <b>\$ 3.9</b>       | <b>\$ 5.5</b>         | <b>\$ 1.6</b>         | <b>41.1%</b>         |
| <b>Information Technology</b>               | <b>\$ 30.5</b>      | <b>\$ 28.4</b>        | <b>\$ (2.1)</b>       | <b>-7.0%</b>         |
| EVP HR & Administration                     | \$ 0.8              | \$ 0.8                | \$ (0.1)              | -6.6%                |
| Enterprise Shared Services                  | \$ 5.9              | \$ 5.4                | \$ (0.5)              | -8.2%                |
| Corporate Communications                    | \$ 5.6              | \$ 5.1                | \$ (0.5)              | -9.1%                |
| Human Resources                             | \$ 11.3             | \$ 12.4               | \$ 1.1                | 10.1%                |
| Strategic Supply Management                 | \$ 7.5              | \$ 10.7               | \$ 3.2                | 42.0%                |
| Digital Warehouse                           | \$ 1.6              | \$ 3.6                | \$ 2.0                | 128.2%               |
| Process Excellence                          | \$ 2.2              | \$ 1.5                | \$ (0.7)              | -33.2%               |
| Knowledge Management                        | \$ 1.6              | \$ 0.9                | \$ (0.7)              | -45.0%               |
| Civil Rights & Inclusion                    | \$ 0.6              | \$ 2.3                | \$ 1.7                | 285.9%               |
| <b>Human Resources &amp; Administration</b> | <b>\$ 37.2</b>      | <b>\$ 42.8</b>        | <b>\$ 5.5</b>         | <b>14.9%</b>         |
| SVP CES                                     | \$ -                | \$ -                  | \$ -                  | X                    |
| Contracts & Program Operations              | \$ -                | \$ -                  | \$ -                  | X                    |
| Market Services & Business Control          | \$ 0.9              | \$ 0.4                | \$ (0.6)              | -61.4%               |
| Business Development                        | \$ 0.5              | \$ 0.2                | \$ (0.3)              | -62.9%               |
| Engineering & Construction Management       | \$ 1.2              | \$ -                  | \$ (1.2)              | -100.0%              |
| <b>Clean Energy Solutions</b>               | <b>\$ 2.6</b>       | <b>\$ 0.5</b>         | <b>\$ (2.1)</b>       | <b>-79.5%</b>        |

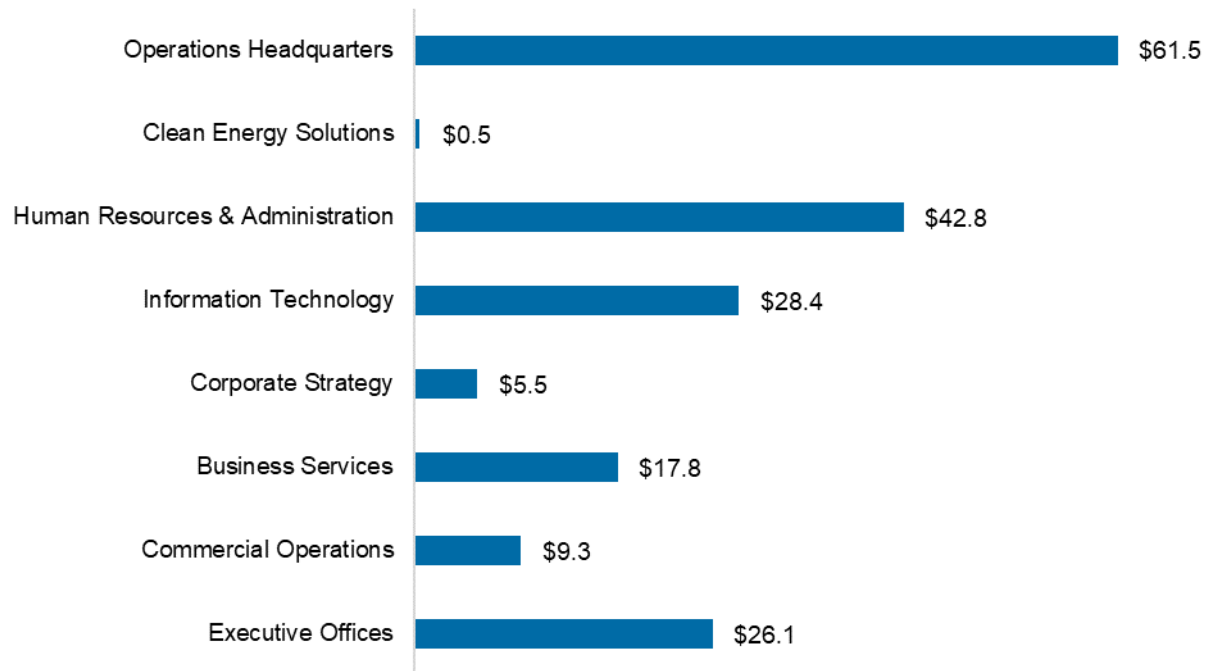
|                                | 2020 Adopted Budget | 2021 Requested Budget | Inc/(Dec) Change (\$) | Inc/(Dec) Change (%) |
|--------------------------------|---------------------|-----------------------|-----------------------|----------------------|
| Operations Headquarters        | \$ 57.1             | \$ 61.5               | \$ 4.4                | 7.7%                 |
| Blenheim-Gilboa                | \$ 21.7             | \$ 20.4               | \$ (1.3)              | -5.8%                |
| St. Lawrence                   | \$ 31.9             | \$ 31.9               | \$ (0.0)              | 0.0%                 |
| Niagara                        | \$ 62.9             | \$ 64.5               | \$ 1.6                | 2.6%                 |
| Flynn                          | \$ 11.0             | \$ 8.3                | \$ (2.8)              | -24.9%               |
| Small Hydros                   | \$ 6.5              | \$ 9.3                | \$ 2.8                | 43.2%                |
| SCPP                           | \$ 21.9             | \$ 22.6               | \$ 0.6                | 2.9%                 |
| Zeltmann                       | \$ 31.6             | \$ 32.2               | \$ 0.6                | 1.9%                 |
| Transmission Lines             | \$ 64.9             | \$ 56.0               | \$ (8.9)              | -13.8%               |
| SENY                           | \$ 4.3              | \$ 4.3                | \$ 0.0                | 0.6%                 |
| Astoria Energy II O&M          | \$ 1.1              | \$ 0.7                | \$ (0.4)              | -33.7%               |
| <b>Operations</b>              | <b>\$ 314.9</b>     | <b>\$ 311.7</b>       | <b>\$ (3.2)</b>       | <b>-1.0%</b>         |
| Astoria II Energy Lease        | \$ 22.0             | \$ 21.2               | \$ (0.7)              | -3.4%                |
| Recharge NY                    | \$ 2.3              | \$ 2.6                | \$ 0.3                | 12.6%                |
| Research & Development         | \$ 12.3             | \$ 13.2               | \$ 0.9                | 7.6%                 |
| Eliminations & Adjustments     | \$ 35.5             | \$ 37.2               | \$ 1.7                | 4.7%                 |
| <b>Total NYPA</b>              | <b>\$ 519.0</b>     | <b>\$ 516.4</b>       | <b>\$ (2.7)</b>       | <b>-0.5%</b>         |
| Canal HQ                       | \$ 22.6             | \$ 33.3               | \$ 10.7               | 47.3%                |
| Canal East                     | \$ 28.7             | \$ 34.2               | \$ 5.5                | 19.0%                |
| Canal West                     | \$ 27.7             | \$ 30.0               | \$ 2.3                | 8.3%                 |
| Canal CDF                      | \$ 2.5              | \$ 1.7                | \$ (0.8)              | -31.2%               |
| NYPA Direct Charges to Canals  | \$ 5.4              | \$ 6.4                | \$ 1.0                | 18.8%                |
| NYPA Direct Assess to Canals   | \$ 6.7              | \$ 6.0                | \$ (0.7)              | -10.2%               |
| <b>Total Canal Corporation</b> | <b>\$ 93.6</b>      | <b>\$ 111.6</b>       | <b>\$ 18.0</b>        | <b>19.2%</b>         |
| <b>Total NYPA &amp; Canals</b> | <b>\$ 612.6</b>     | <b>\$ 627.9</b>       | <b>\$ 15.3</b>        | <b>2.5%</b>          |

### NYPA & Canals O&M by Facility - \$627.9M

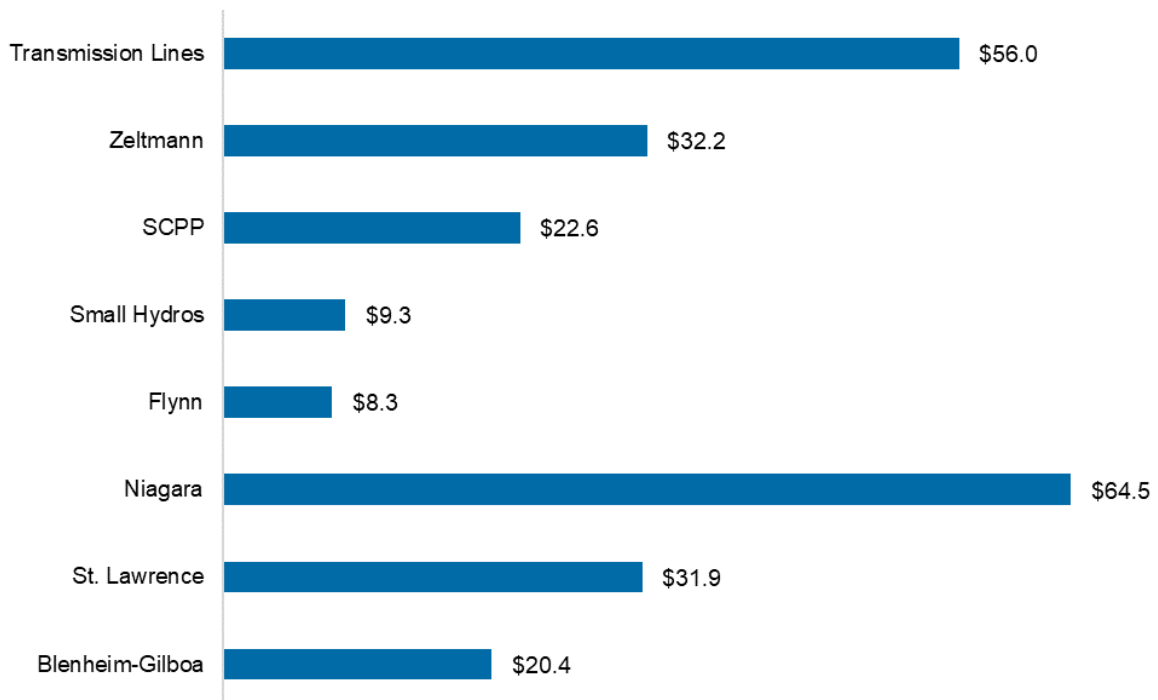


## NYPA Total Headquarters - \$192.0M

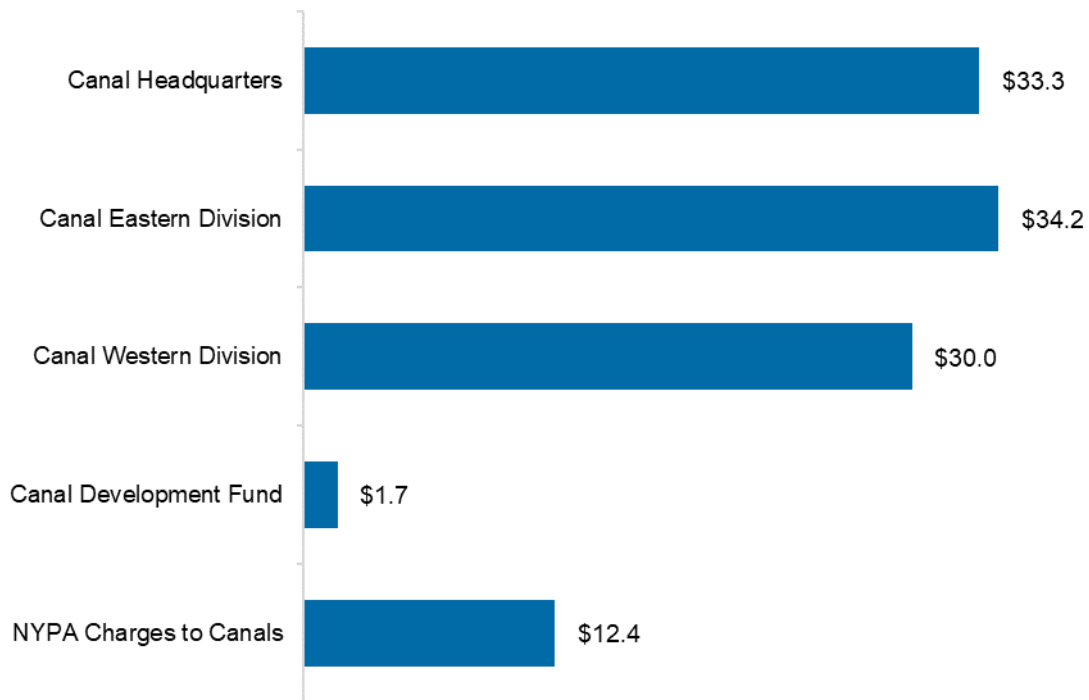
(Corporate & Operations Headquarters)



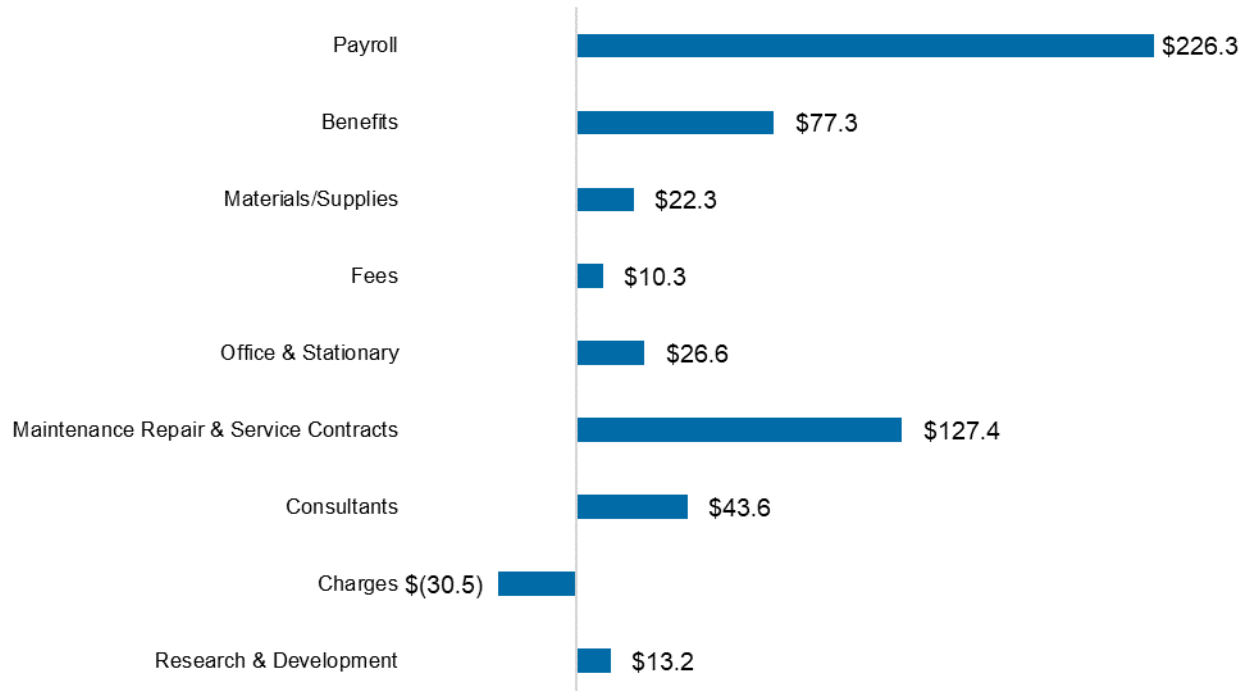
## NYPA Operations Sites - \$245.2M



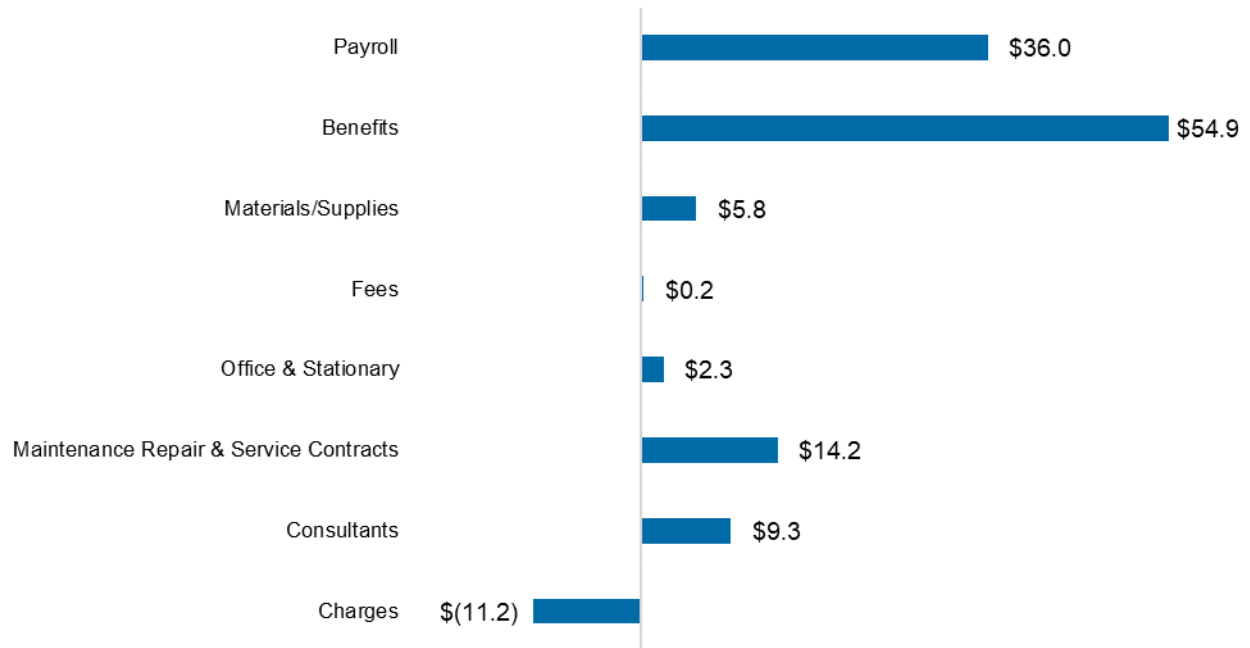
### Canal Corporation - \$111.6M



### NYPA O&M by Cost Element Grouping - \$516.4M



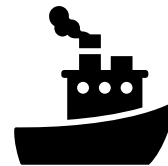
## Canal Corporation O&M by Cost Element Grouping - \$111.6M



## Authorized Headcount NYPA & Canal Corporation



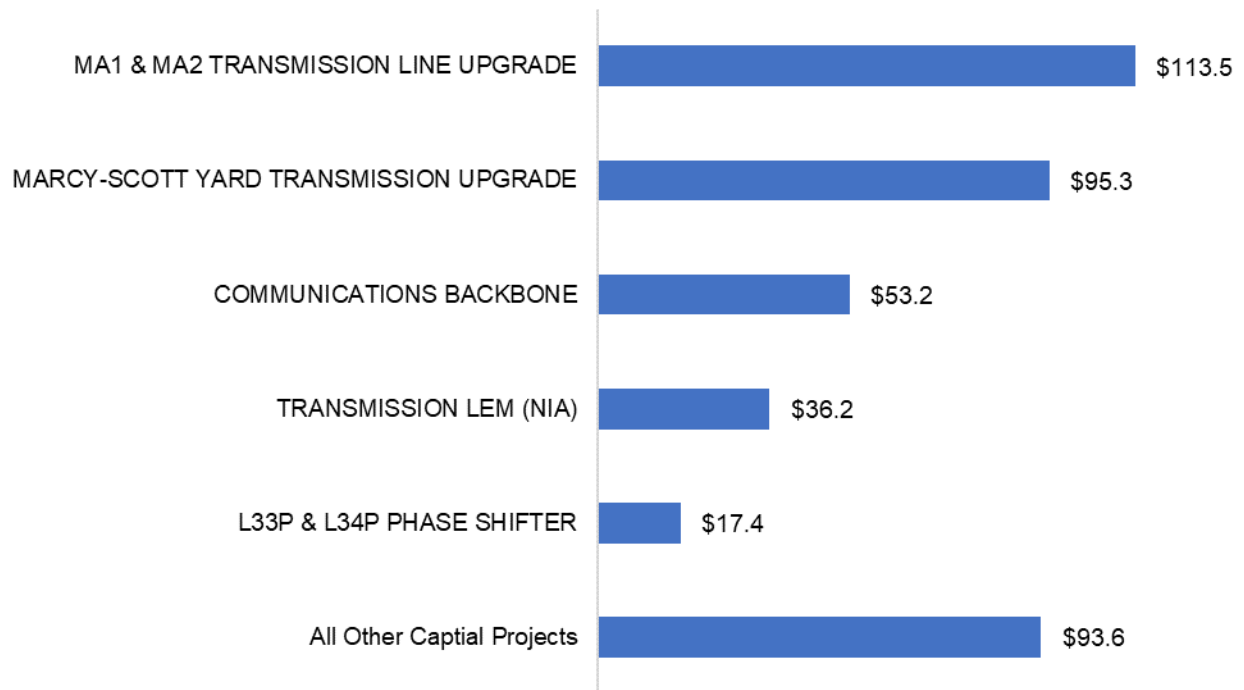
**Authorized Headcount**  
**NYPA**  
 2,048



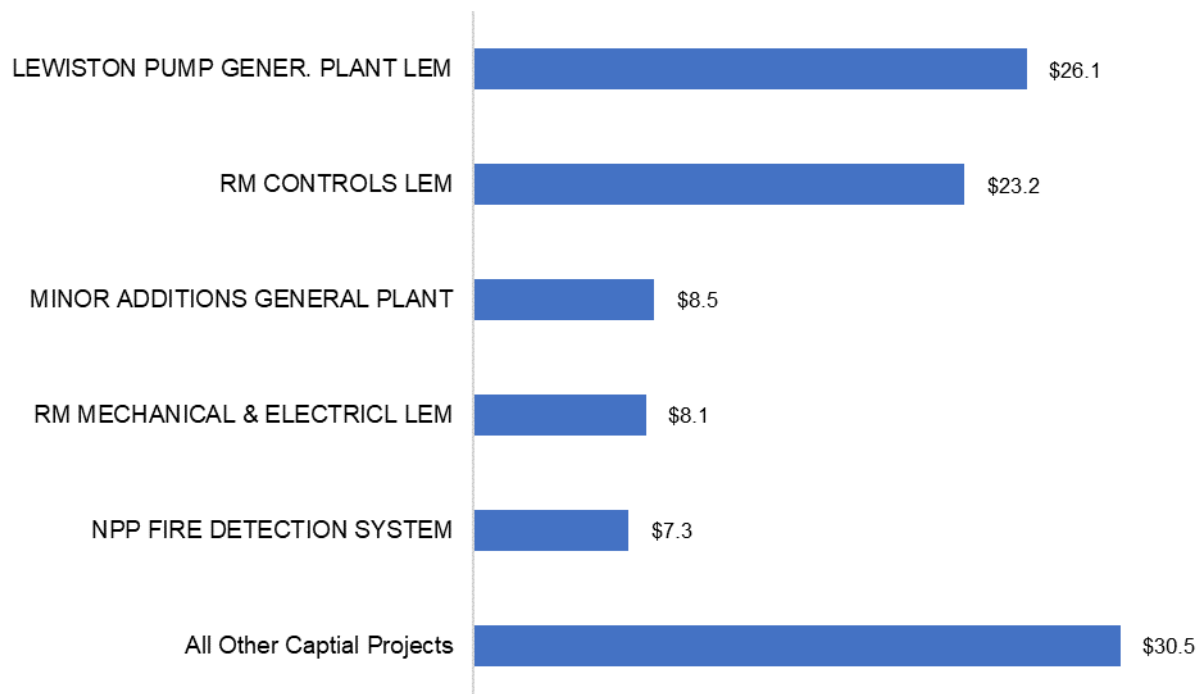
**Authorized Headcount**  
**Canal Corporation**  
 482

**Authorized Headcount**  
**NYPA & Canal Corporation**  
 2,530

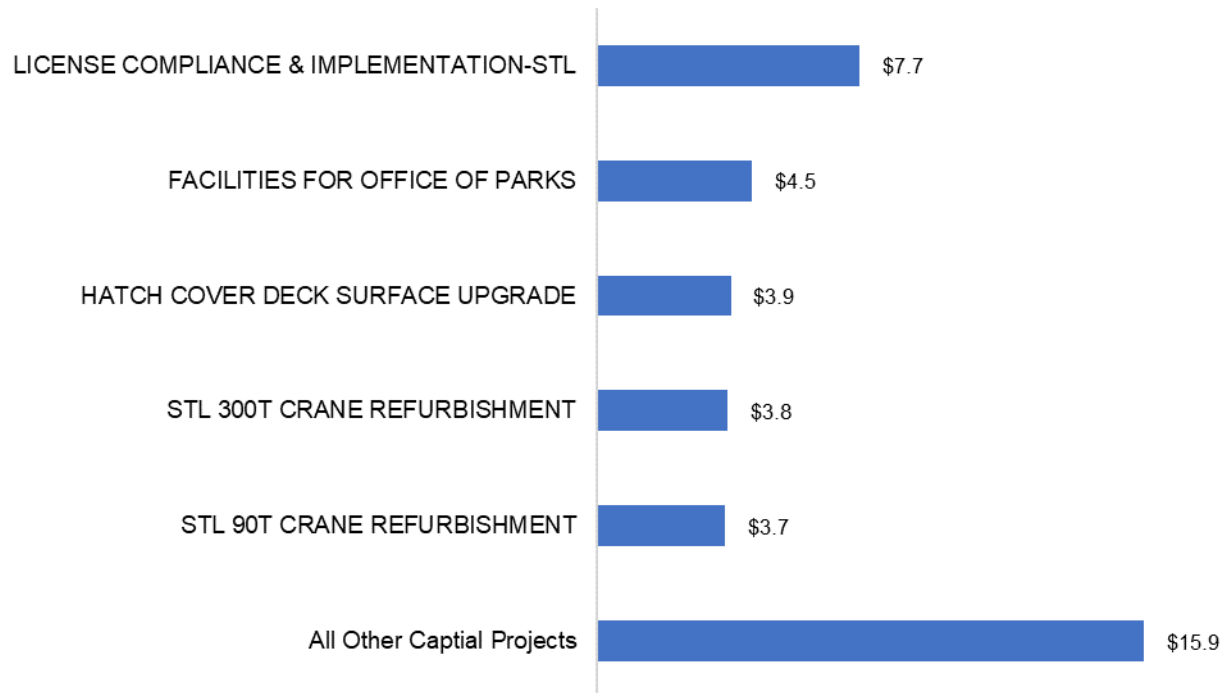
**Transmission Capital Projects: \$509.4M**



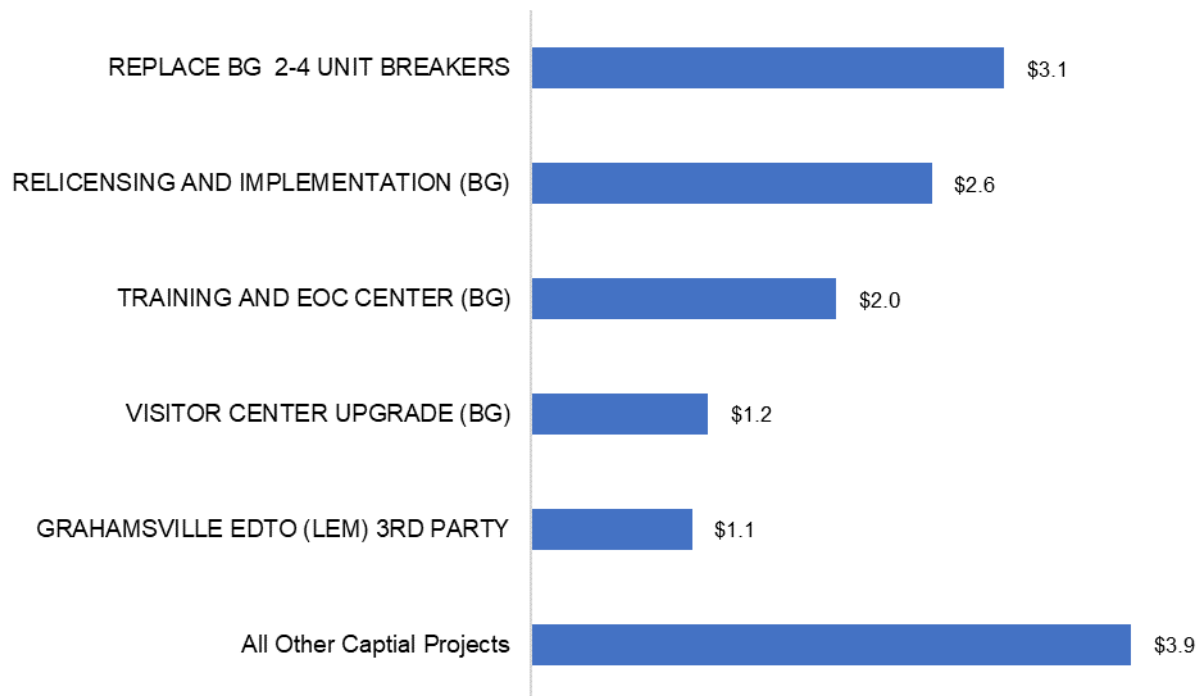
**Niagara Capital Projects: \$103.8M**



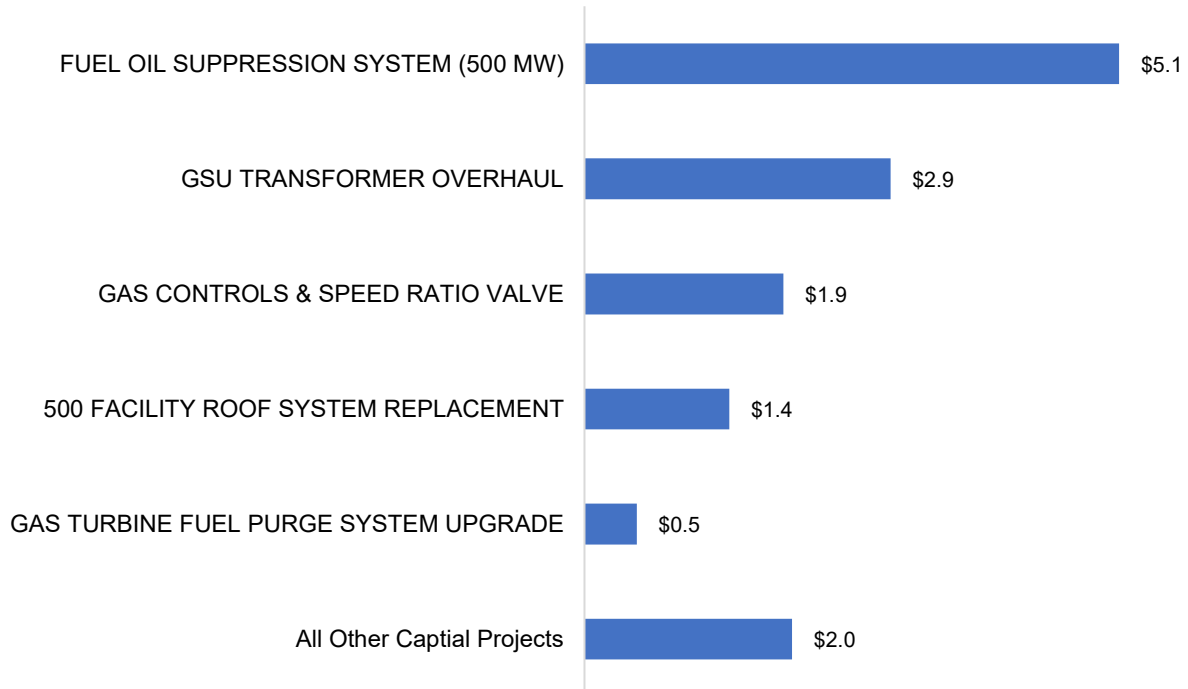
## St. Lawrence Capital Projects: \$39.5M



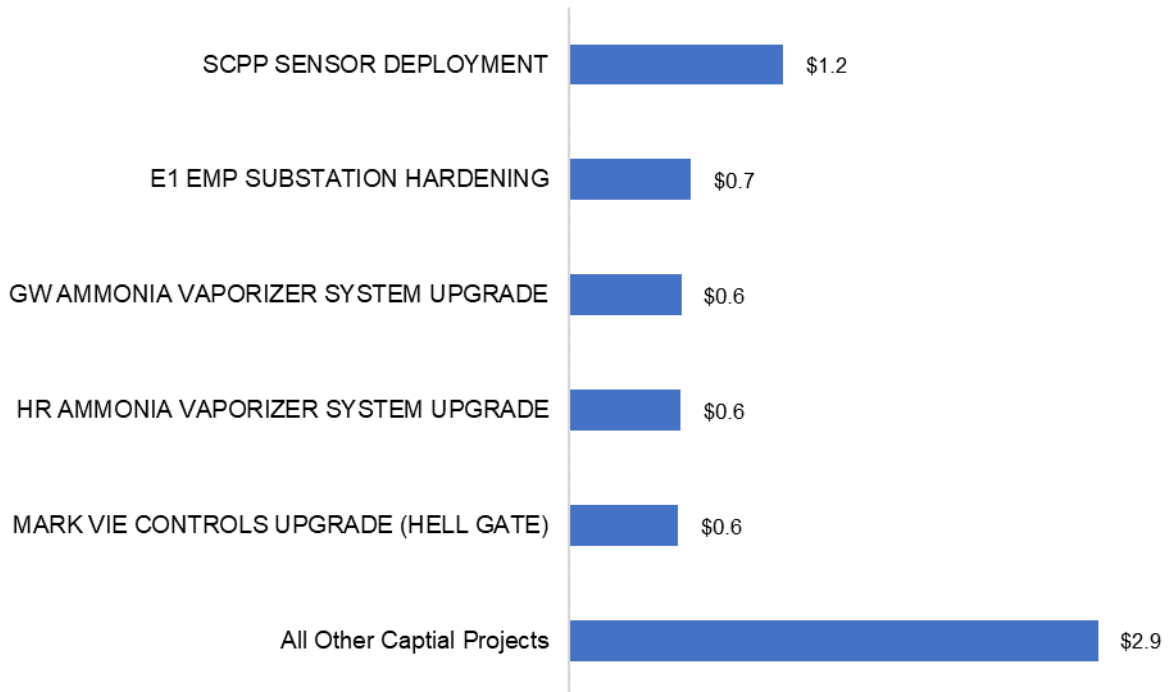
## Blenheim-Gilboa Capital Projects: \$13.9M



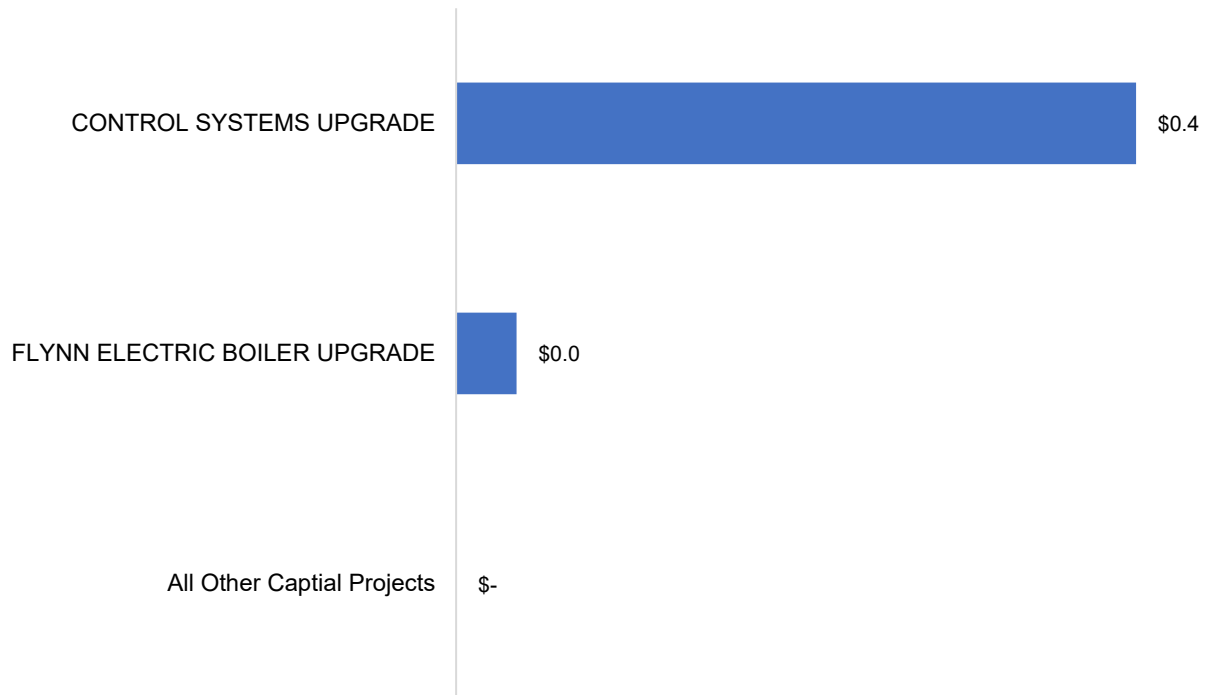
## Zeltmann Captial Projects: \$13.8M



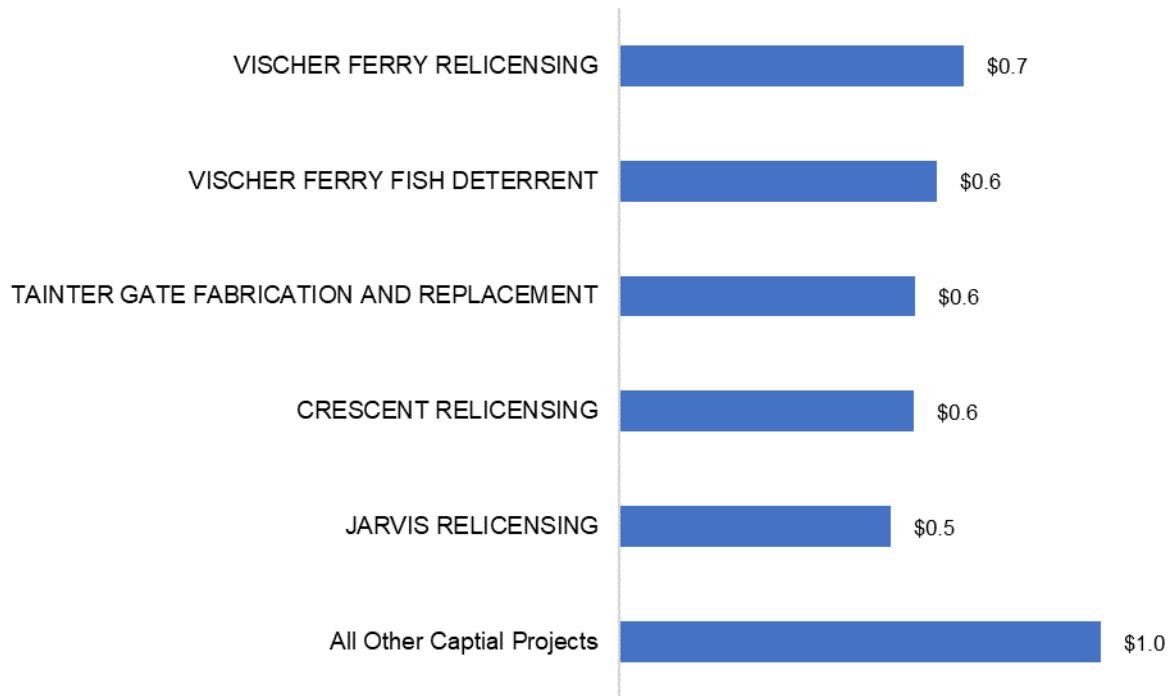
## SCPP Captial Projects: \$6.5M



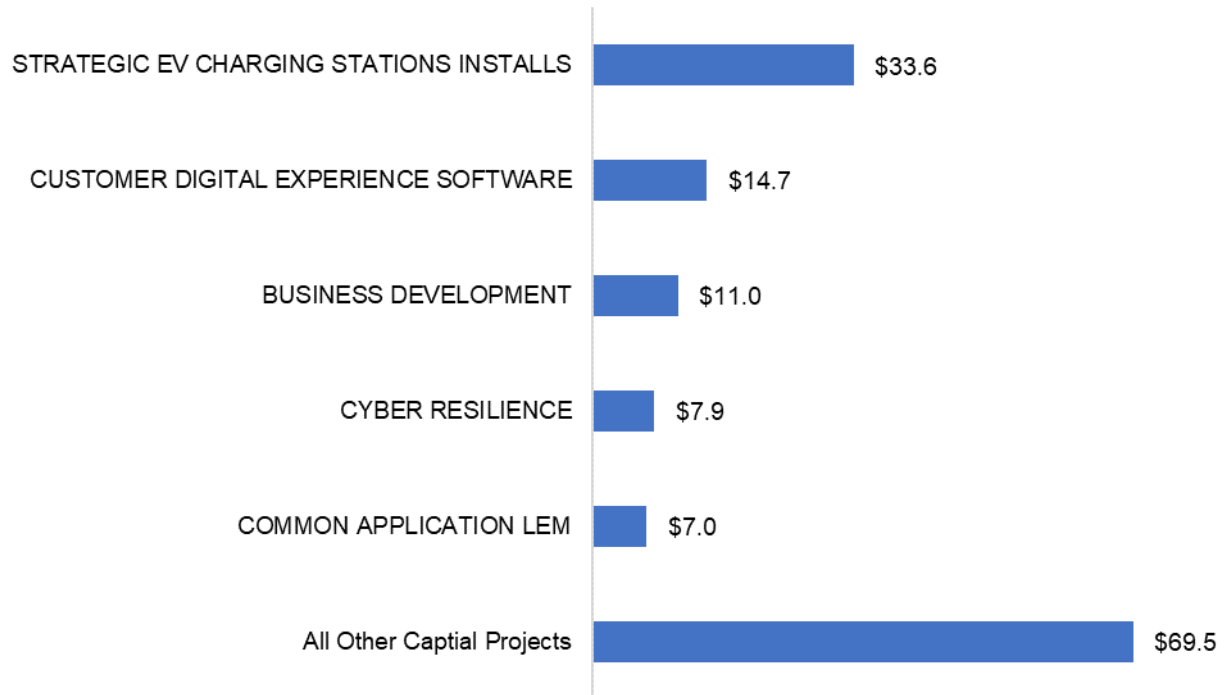
### Flynn Capital Projects: \$0.5M



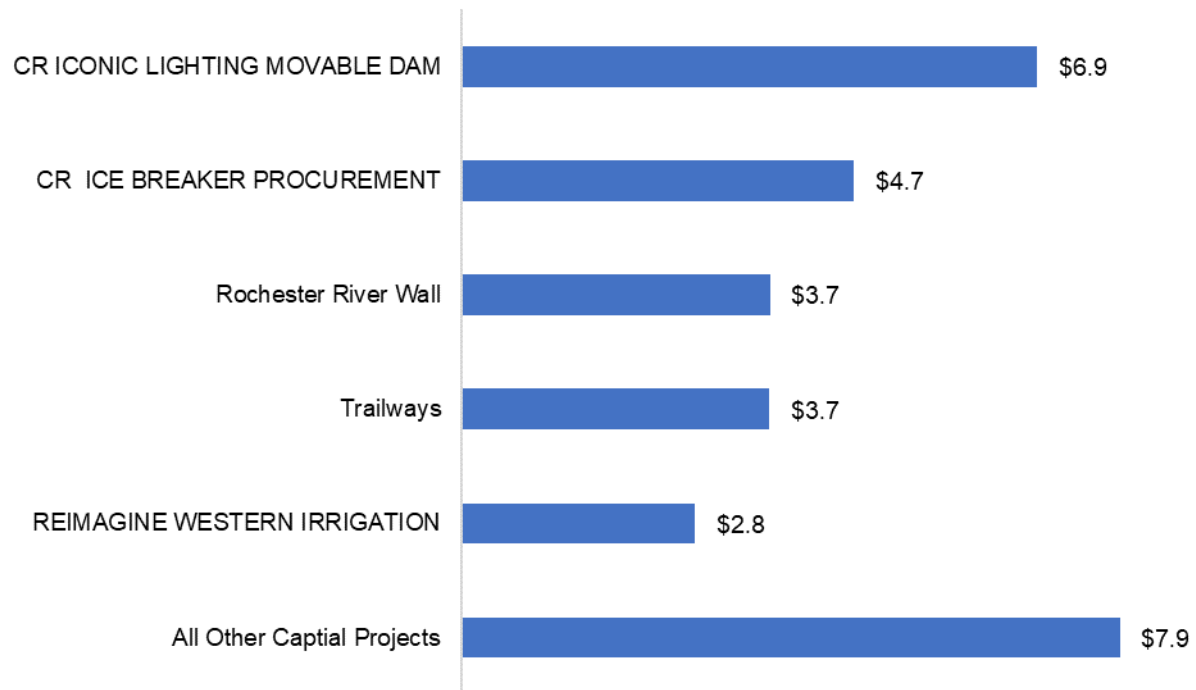
### Smalll Hydros Capital Projects: \$4.1M



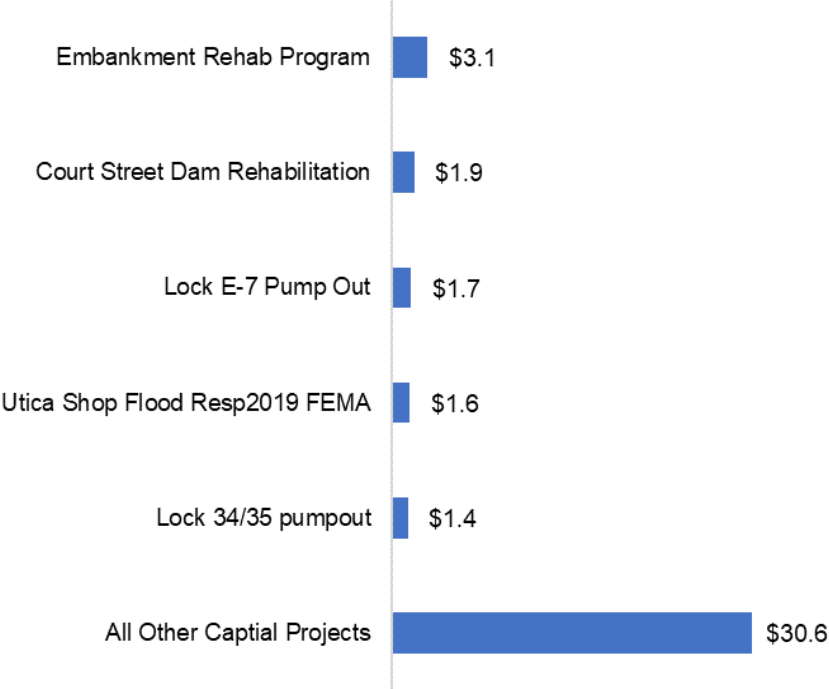
## Headquarters Capital Projects: \$143.7M



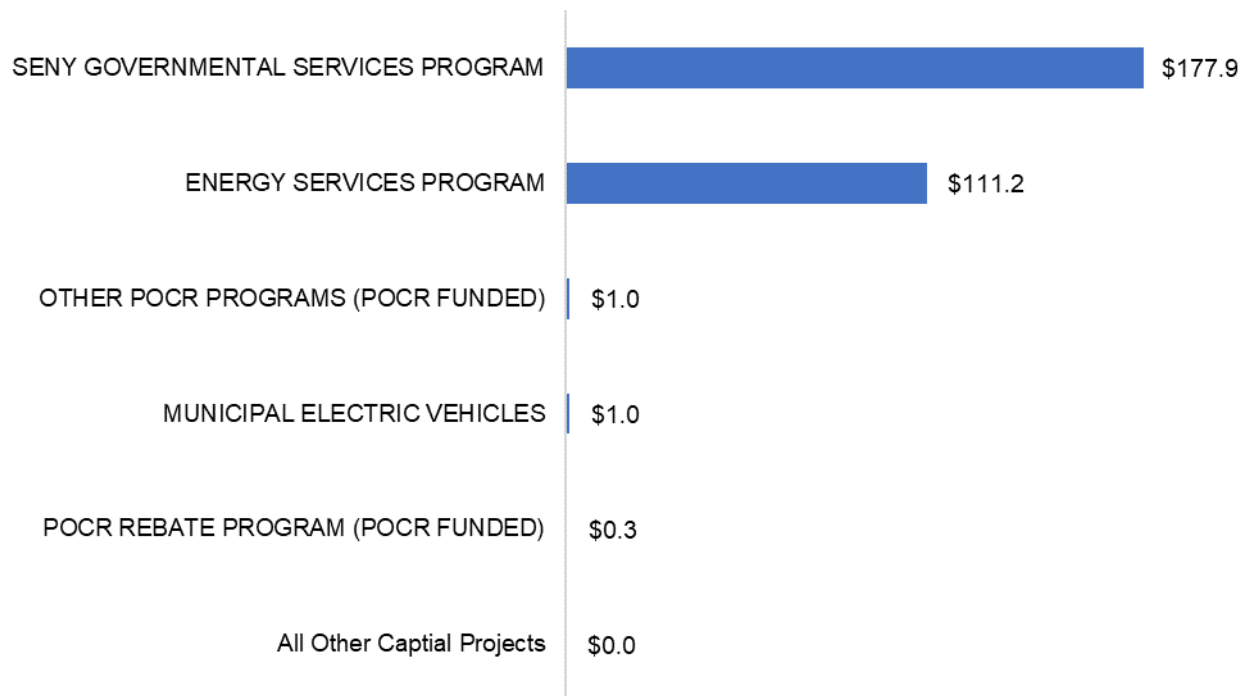
## Reimagine Canals Capital Projects: \$29.7M



**Canals Capital Projects: \$40.3M**



**Energy Services Captial Projects: \$291.4M**



# 2021-2024

## PROPOSED BUDGET & FINANCIAL PLAN

In Compliance with 2 NYCRR Chapter 5, Part 203



**NY Power  
Authority**



# **2021 – 2024**

## **Proposed Budget and Financial Plan**

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***This document is a preliminary version of NYPA's 2021 Budget and 2021-2024 Financial Plan. It has not received approval from the Authority's Trustees and should not be relied upon as an official forecast. The 2021-2024 Approved Budget and Financial Plan, which is expected to be filed subsequent to the December 9<sup>th</sup>, 2020, Trustee meeting, will reflect the Official Budget for 2021.***

## **Mission of the Power Authority of the State of New York**

The new mission of the Power Authority of the State of New York ("NYPA" or the "Authority"), which is expected to be ratified by our Trustees in their December 2020 meeting, is to "Lead the transition to a carbon-free, economically vibrant New York through customer partnerships, innovative energy solutions, and the responsible supply of affordable, clean, and reliable electricity." The new mission statement adheres to maintaining NYPA's core operating businesses while also moving to support the energy goals of the State of New York, codified in the Clean Energy Standard, New York State Climate Leadership and Community Protection Act, our Enhanced Authority under changes to the Power Authority Act enacted in 2019, and the Accelerated Renewable Energy Growth and Community Benefit Act, outlined below.

The Authority's financial performance goal is to maintain a strong financial position to have the resources necessary to achieve its mission.

## **Clean Energy Standard**

On August 1, 2016, the New York Public Service Commission ("NYPSC", "PSC") issued an order establishing a Clean Energy Standard (the "CES Order") to implement the clean energy goals of the State Energy Plan. Pursuant to the CES Order, load serving entities identified in the order are required to purchase "Zero Emission Credits" ("ZECs") from the New York State Energy Research Development Authority ("NYSERDA") to support the preservation of existing at-risk zero emissions nuclear generation. The Authority is not subject to NYPSC jurisdiction for purposes of the CES Order but has assumed an obligation to purchase ZECs consistent with the terms of the CES Order and intends to seek recovery of such costs from the Authority's customers. On January 31, 2017, the Authority's Trustees authorized (a) participation in the NYPSC's ZEC program and (b) execution of an agreement with NYSERDA to purchase ZECs associated with the Authority's applicable share of energy sales. The Authority and NYSERDA executed an agreement covering a two-year period from April 1, 2017 to March 31, 2020 under which the Authority committed to purchase ZECs in a quantity based on its proportional load in the New York control area. The Authority continues to operate under the terms of the agreement. As of August 2020, the Authority estimates that it will incur ZEC purchase costs associated with participation in the ZEC program of approximately \$268.5 million in aggregate over the 2020-2023 period, of which approximately \$14.4 million is not expected to be recovered under customer contracts that predate the adoption of the CES Order. As of June 30, 2020, the Authority has paid \$167.5 million in ZEC purchase costs.

## **New York State Climate Leadership and Community Protection Act**

On July 18, 2019, the State enacted the "New York State Climate Leadership and Community Protection Act" as Chapter 106 of the Laws of 2019 ("Chapter 106"). Chapter 106 directs the New York State Department of Environmental Conservation (the "NYDEC") to develop regulations to reduce statewide greenhouse gas emissions ("GHG") to 60% of 1990 levels by 2030 and 15% of 1990 levels by 2050. Chapter 106 also requires that the state offset the remaining 15% of 1990 GHG emissions in 2050. NYDEC is currently drafting regulations that would implement these goals.

Several provisions of Chapter 106 could potentially impact the Authority's business and operations, such as the following: (1) a requirement that specified State entities, including the Authority, adopt regulations to contribute to achieving statewide GHG emissions; (2) a requirement that State entities, including the Authority, assess and implement strategies to reduce GHG emissions; (3) consideration of whether actions that the Authority would undertake in the course of its operations are consistent with State GHG emission limits that will be established pursuant to the enactment; and (4) potential allocation or realignment of resources to support State clean energy and energy efficiency goals for disadvantaged communities.

As part of the 2020-2021 Enacted State Budget, legislation was enacted that is expected to significantly speed up the siting and construction of clean energy projects to combat climate change in an effort to improve the State's economic recovery from the COVID-19 health crisis. The Accelerated Renewable Energy Growth and Community Benefit Act (the "CBA Act") will create an Office of Renewable Energy Siting to improve and streamline the process for environmentally responsible and cost-effective siting of large-scale renewable energy projects across the State while delivering

significant benefits to local communities. The CBA Act, which will be implemented by the Authority and New York State Department of State, NYSEERDA, the Department of Public Service (the “DPS”), NYDEC and the Empire State Development Corporation, will accelerate progress towards the State’s clean energy and climate goals, including the goal to obtain 70% of the State’s electricity from renewable sources by 2030.

### Enhanced Authority

Chapter 58 of the Laws of 2019 (Parts KK and LL), enacted April 12, 2019, amended the Power Authority Act to give the Authority enhanced powers to continue to support New York State energy policies and priorities, and offer additional energy products to entities who desire to purchase power from the Authority. In summary, the enactment authorizes the Authority to:

- 1) Design, finance, develop, construct, install, lease, operate and maintain electric vehicle charging stations throughout the State for use by the public;
- 2) Plan, finance, construct, acquire, operate, improve and maintain transmission facilities to transmit power and energy generated from renewable wind energy generation in state territorial waters and waters under the jurisdiction or regulation of the U.S.;
- 3) Supply power and energy from competitive market sources to any Authority power customer, public entities (e.g., state entities, municipalities, public school districts), and community choice aggregation communities (Affected Entities);
- 4) Sell renewable power, energy, or related attributes (Energy Products) procured from competitive market and other qualifying sources to Affected Entities; and
- 5) Finance the development of renewable energy generating projects in the state in U.S. property/waters, including up to six projects with a generating capacity in excess of 25 megawatts, and sell Energy Products produced from such projects to Affected Entities.

The enhanced authority summarized in items 3-5 is subject to conditions and limitations specified in the enactment and is currently scheduled to repeal June 30, 2024. The enactment does not impact the Authority’s legal authority existing under any other provision of law.

Leveraging this enactment, NYPA is in the process of developing new power products for customers, including green and blended power products, through rate structures intended to meet the energy, sustainability and financial goals of its customers. At this time, no financial estimates related to these product offerings have been incorporated into this Proposed Four-Year Plan.

### Accelerated Renewable Energy Growth and Community Benefit Act

The Accelerated Renewable Energy Growth and Community Benefit Act (the “Renewable Energy Act”) was enacted as part of the 2020-21 Enacted State Budget and amends State law with respect to the siting of major utility transmission facilities to (1) establish a 12-month target timeframe for the siting of major utility transmission facilities (“MUTFs”); and (2) authorizes the PSC to establish in regulation an expedited 9-month target timeframe for MUTFs that: (a) are constructed within existing rights-of-way, or (b) would not result in any significant adverse environmental impacts considering current uses and conditions existing at the site, as determined by the PSC, in consultation with the NYDEC, or (c) would necessitate expanding the existing rights-of-way where the expansion is for the purpose of complying with law, regulations or industry practices relating to electromagnetic fields. This new, expedited siting process will be administered through a new siting office to be established within the Department of State. The Renewable Energy Act also establishes a new “Clean Resources Development and Incentives Program” pursuant to which NYSEERDA will establish “build-ready” sites that would be made available to renewables developers through a competitive process, and a host community benefits program to be established by PSC pursuant to which renewable developers would fund programs to provide benefits to communities that host new renewable generation projects.

The Renewable Energy Act also contains provisions to facilitate new and upgraded distribution and transmission projects that are necessary to for the state to avoid congestion and reach the Chapter 106 targets (the “Transmission Component”). The Legislature found that the Authority owns and operates backbone electric transmission assets in the State, has rights-of-way that can support in whole or in part bulk transmission investment projects, and has the financial stability, access to capital, technical expertise and experience to effectuate expeditious development of bulk

transmission investments needed to help the State meet its targets under Chapter 106. As such, the Transmission Component grants the Authority the ability to develop projects which the PSC determines should be pursued expeditiously to promote the State's public policy goals ("Priority Transmission Projects").

After the completion of a comprehensive study for the purpose of identifying distribution upgrades, local transmission upgrades and bulk transmission investments that are necessary or appropriate to facilitate the timely achievement of Chapter 106 targets (collectively, "Grid Study") undertaken by the DPS in consultation with the Authority, NYSERDA, the New York Independent System Operator ("NYISO"), and jurisdictional utilities and transmission operators, the PSC will establish a distribution and local transmission capital plan for each utility in whose service territory the Grid Study identified distribution upgrades and local transmission upgrades that DPS determines are necessary or appropriate to achieve targets set forth in Chapter 106. The upgrade programs shall establish a prioritized schedule upon which each such upgrades shall be accomplished. The PSC will also establish a bulk transmission system investment program that identifies bulk transmission investments it determines to be necessary or appropriate to achieve the Chapter 106 targets. PSC will identify Priority Transmission Projects to meet the Chapter 106 targets utilizing the NYISO's policy transmission planning process.

Pursuant to the Renewable Energy Act, the Authority is authorized to solicit interest from potential co-participants in each Priority Transmission Project it agrees to develop, and assess whether any joint development would provide for significant additional benefits in achieving the Chapter 106 targets. The Authority may then undertake the development of the Priority Transmission Project on its own or undertake the Priority Transmission Project jointly with one or more other parties. A joint development of a Priority Transmission Project may be accomplished through agreements on such terms and conditions as the Authority finds to be appropriate and necessary to undertake and complete timely development of the Priority Transmission Project. For those Priority Transmission Projects that the Authority determines to undertake, and which are not substantially within its rights-of-way, the Authority will, select private sector participants through a competitive bidding process. Excluded from these Priority Transmission Projects are generation lead lines, and repairs to, replacement of or upgrades to the Authority's own transmission assets.

### **Background of the Power Authority of the State of New York**

The Authority generates, transmits, purchases, and sells electric power and energy as authorized by law. The Authority's customers include municipal and rural electric cooperatives, investor-owned utilities, high load factor industrial customers, commercial/industrial and not-for-profit businesses, public entities and Community Choice Aggregation Communities located throughout New York State, state local towns, villages, school districts, fire departments, etc. located in Southeastern New York within the metropolitan area of New York City ("SENY governmental customers"), and certain neighboring states. Legislation enacted in 2019, amended the Power Authority Act to give the Authority enhanced powers to continue to support New York State energy policies and priorities, and offer additional energy products to entities who desire to purchase power from the Authority. In addition to contractual sales to customers, the Power Authority also sells power into the wholesale electricity market operated by the NYISO.

To provide electric service, the Authority owns and operates five major generating facilities, eleven small gas-fired electric generating facilities, and four small hydroelectric facilities in addition to a number of transmission lines, including major 765kV, 345kV, 230kV and 115kV transmission facilities. The Authority's five major generating facilities consist of two large hydroelectric facilities: Niagara Power Project ("Niagara") and St. Lawrence-Franklin D. Roosevelt Power Project ("St. Lawrence-FDR"); Blenheim-Gilboa Pumped Storage Project ("Blenheim-Gilboa") a large pumped-storage hydroelectric facility, and two combined cycle electric generating plants: the Eugene W. Zeltmann Power Project ("Zeltmann") located in Queens, New York and the Richard M. Flynn Power Plant ("Flynn") located on Long Island.

As a component of NYPA's strategic plan, there are on-going efforts to modernize NYPA's generation and transmission infrastructure to increase flexibility and resiliency, to serve customers' needs in an increasingly dynamic energy marketplace, and to support the State's clean energy goals.

On April 29, 2020, NYPA came to market with the largest issuance in its ~90-year existence and its inaugural Green Bond issuance of approximately \$792 million. NYPA's \$1.2 billion April financing is a major steppingstone in achieving the Country's most ambitious decarbonization agenda as set out by New York's Climate Leadership and Community Protection Act ("CLCPA"), which Governor Andrew M. Cuomo signed into law on July 18, 2019. The issuance of the 2020 bonds continues to support NYPA's Strong Governance Practices, including supporting NYPA's capital plan and its goal of avoiding deferred maintenance, keeping assets in good repair, and investing in IT infrastructure projects to protect against cyber threats. The Authority owns and operates the Niagara Power Project ("RMNPP") providing up to 2.6 million kilowatts of clean electricity generated by two facilities, the Robert Moses Power Plant ("RMPP") and the

Lewiston Pump Generation Plant (“LPGP”). Because a majority of the RMPP equipment is nearly 60 years old, the Authority is undertaking a Life Extension & Modernization (LEM) program for it and its associated infrastructure. The program is focused on modernizing the thirteen units at RMPP, digitization of controls and providing for security and reliability of the RMNPP and its integrated infrastructure (NextGen Niagara).

The Authority provides customers with wide-ranging on-site energy solutions including energy data analytics, planning, operations, and the development of capital projects such as energy efficiency, distributed generation, advanced technologies, and renewables. The Authority also has the responsibility for implementation of: (a) the Governor’s Executive Order No. 88, known as “BuildSmart NY” to improve energy efficiency at State owned and managed buildings; (b) the “Five Cities Energy Efficiency Implementation Plans” (the cities of Albany, Buffalo, Rochester, Syracuse and Yonkers) to reduce overall energy costs and consumption, strengthen the reliability of energy infrastructure, create jobs in local clean energy industries and contribute to a cleaner environment. From January 2013 through December 2019, NYPA has provided approximately \$651 million in financing for energy efficiency projects covered by Executive Order 88. Overall financing from January 2013 through December 2019 for energy efficiency projects for all customers (including EO88 facilities) amounts to \$1.68 billion.

To achieve its goal of promoting clean energy and efficiency, NYPA implements energy services for the benefit of its power supply customers and for various other public entities throughout the State. Under these programs, the Authority finances the installation of energy saving measures and equipment, which are owned by the customers and public entities upon their installation and which focus primarily on energy efficiency, renewables, resiliency, and sustainability. These programs provide funding for, among other things, high efficiency lighting technology conversions, high efficiency heating, ventilating and air conditioning systems and controls, boiler conversions, replacement of inefficient refrigerators with energy efficient units in public housing projects, electric vehicles and charging stations, distributed generation technologies and clean energy technologies, and installation of non-electric energy saving measures. The Authority has authorized, as of September 2019, the expenditure of an aggregate of \$5.4 billion on these programs.

Effective January 1, 2017, the New York State Canal Corporation (the “Canal Corporation”) became a subsidiary of the Authority, and the Authority assumed certain powers and duties relating to the Canal System (as defined below) to be exercised through the Canal Corporation. The Canal Corporation is responsible for a 524-mile canal system consisting of the Erie, Champlain, Oswego, and Cayuga-Seneca canals (the “Canal System”). See “(c) Budget Assumptions, Canal Corporation” for more information.

In 2019, the Authority received ISO 55001 certification for asset management enterprise wide. Asset management is one of the critical components of the Authority’s business strategy. ISO 55001 is an asset management system standard, the main objective of which is to help organizations manage the lifecycle of assets more effectively. By implementing ISO 55001, organizations will have better control over daily activities, achieve higher returns with their assets, and reduce the total cost of risk.

In 2019, the Authority enrolled in the premier Bitsight cyber security ranking system to validate and monitor its external security posture. Bitsight is a web application that ranks companies based on external scans of their information technology environment. Since enrolling, NYPA has consistently ranked in the top 10% of all utilities in its peer group.

## 2021-2030 Strategic Plan

NYPA is closing out the NYPA 2020 Strategic Plan which encompassed Customer Empowerment, Infrastructure Modernization and Resource Alignment themes and saw accomplishments in the achievement of ISO 55001 certification for asset management, significant progress on the transition to an all-digital utility, which allowed for a near-seamless transition to work-from-home during the pandemic, and the build out of a statewide electric vehicle charging infrastructure, among many others.

As part of the next strategic plan, VISION2030, the Authority is proposing strategic goals that will focus on preserving the value of our hydropower assets; rapidly developing new transmission assets to meet market needs; leading the transition away from natural gas while ensuring system reliability; and growing NYPA’s business lines to fulfill customers’ energy, resiliency and decarbonization goals. NYPA’s proposed goals also will ensure the continuation of NYPA’s evolution to an all-digital utility and the adoption of the rigorous Environment, Social, Governance and Economic (ESG&E) framework.

The VISION2030 strategic plan is anchored in helping achieve the greenhouse gas reduction targets in New York State’s Climate Leadership and Community Protection Act, which was passed in 2019 and is the most ambitious climate change legislation in the country, while ensuring an equitable transition to a thriving clean energy economy in New

York. This plan will be presented to the Authority's Board of Trustees for approval in December 2020 and will be included in the final four-year budget and financial plan published after that meeting.

This Proposed Four-Year Plan reflects costs and revenues with respect to this strategic plan.

#### **(a) NYPA's Relationship with New York State Government**

The Authority is a corporate municipal instrumentality and political subdivision of the State of New York (the "State") created in 1931 by Title 1 of Article 5 of the Public Authorities Law, Chapter 43-A of the Consolidated Laws of the State, as amended from time to time (the "Act"), to help provide a continuous and adequate supply of dependable electric power and energy to the people of the State.

The Authority's operations are overseen by a Board of Trustees. NYPA's Trustees are appointed by the Governor of the State, with the advice and consent of the State Senate. The Authority is a fiscally independent public corporation whose operations are not supported by state tax revenues. NYPA generally finances construction of new projects through a combination of internally generated funds and the sale of bonds and notes to investors and pays related debt service with revenues from the generation and transmission of electricity. Income of the Authority and properties acquired by it for its projects are exempt from taxation.

#### **(b) Budget Process**

NYPA operates in a capital-intensive industry where operating revenues and expenses are significant and highly variable due to the volatility of electricity prices and fuel costs. NYPA's operations are not only subject to electric and fuel cost volatility, but also changing water flows that have a direct effect on hydroelectric generation levels. This 2021-2024 Proposed Budget and Financial Plan ("Proposed Four-Year Plan") and the 2021-2024 Final Budget and Financial Plan rely on data and projections developed through the following timeframe:

- During July – November 2020, develop preliminary forecasts of electric prices (both energy and capacity), ancillary services revenue and expenses, and fuel expenses; NYPA customer power and energy use; NYPA customer rates; Annual Transmission Revenue Requirement; generation levels at NYPA power projects reflecting scheduled outages; and purchased energy and power requirements and sources.
- During July – November 2020, develop preliminary operations and maintenance, and capital expense targets.
- November 1, 2020, post this Proposed Four-Year Plan for public inspection at five convenient locations and on NYPA's internet website.
- During October – November 2020, update and finalize all forecasts and cost estimates.
- During November – December 2020, integrate above data to produce the 2021-2024 Final Budget and Financial Plan.
- Seek authorization of NYPA's Trustees to approve the 2021-2024 Final Budget and Financial Plan at their meeting currently scheduled for December 9, 2020.  
Submit the approved 2021-2024 Budget and Financial Plan to the State Comptroller's Office; and make the approved document available for public inspection at five convenient locations and on NYPA's internet website upon Trustee approval.

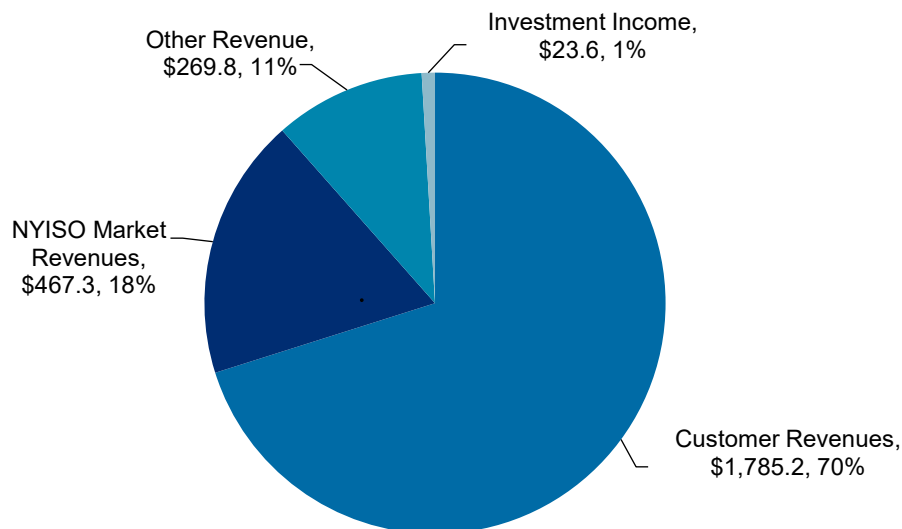
**NYPA & Canals Four-Year Projected Income Statements**  
(In \$ Millions)

| <b>NYPA</b>                                         | <b>2021</b>      | <b>2022</b>      | <b>2023</b>      | <b>2024</b>      |
|-----------------------------------------------------|------------------|------------------|------------------|------------------|
| <b>Operating Revenue:</b>                           |                  |                  |                  |                  |
| Customer Revenue                                    | \$1,785.3        | \$1,782.1        | \$1,837.2        | \$1,860.0        |
| Market-Based Power Sales                            | 439.5            | 460.3            | 474.9            | 511.9            |
| Ancillary Service Revenue                           | 27.8             | 28.2             | 28.0             | 29.2             |
| NTAC and Other                                      | 237.5            | 243.1            | 282.4            | 334.8            |
| Non Utility Revenue                                 | <u>29.2</u>      | <u>29.7</u>      | <u>33.8</u>      | <u>39.4</u>      |
| <b>Operating Revenue Total</b>                      | <b>2,519.3</b>   | <b>2,543.4</b>   | <b>2,656.3</b>   | <b>2,775.3</b>   |
| <b>Operating Expense:</b>                           |                  |                  |                  |                  |
| Purchase Power                                      | (614.6)          | (631.0)          | (654.8)          | (680.2)          |
| Ancillary Service Expense                           | (60.2)           | (61.8)           | (62.3)           | (63.2)           |
| Fuel Consumed                                       | (115.1)          | (130.7)          | (142.4)          | (155.5)          |
| Wheeling                                            | (643.0)          | (643.2)          | (643.2)          | (643.2)          |
| Operations & Maintenance                            | (472.0)          | (514.6)          | (541.7)          | (565.9)          |
| Other Expense                                       | <u>(126.7)</u>   | <u>(76.1)</u>    | <u>(74.4)</u>    | <u>(73.8)</u>    |
| <b>Operating Expense Total</b>                      | <b>(2,031.6)</b> | <b>(2,057.4)</b> | <b>(2,118.8)</b> | <b>(2,181.8)</b> |
| <b>EBIDA:</b>                                       | <b>487.7</b>     | <b>486.0</b>     | <b>537.5</b>     | <b>593.5</b>     |
| <b>Compounded Annual Growth Rate (CAGR)</b>         |                  | 0%               | 5%               | 7%               |
| <b>Non Operating Income &amp; Expenses:</b>         |                  |                  |                  |                  |
| Depreciation & Amortization                         | (229.1)          | (246.8)          | (269.1)          | (293.8)          |
| Investment and Other Income                         | 23.1             | 21.3             | 21.9             | 16.8             |
| Mark to Market Adjustments                          | 0.5              | (0.4)            | (0.9)            | 0.0              |
| Interest & Other Expenses                           | <u>(131.7)</u>   | <u>(105.1)</u>   | <u>(128.9)</u>   | <u>(150.3)</u>   |
| <b>Non Operating Income &amp; Expenses Total</b>    | <b>(337.2)</b>   | <b>(331.0)</b>   | <b>(377.0)</b>   | <b>(427.3)</b>   |
| <b>NYPA NET INCOME:</b>                             | <b>\$150.5</b>   | <b>\$155.0</b>   | <b>\$160.5</b>   | <b>\$166.2</b>   |
| <b>CANALS:</b>                                      |                  |                  |                  |                  |
| Operating Revenue                                   | \$3.0            | \$3.0            | \$3.0            | \$3.0            |
| Operating Expense                                   | (105.5)          | (107.9)          | (107.7)          | (107.6)          |
| <b>EBIDA:</b>                                       | <b>(102.5)</b>   | <b>(104.9)</b>   | <b>(104.7)</b>   | <b>(104.6)</b>   |
| <b>Non Operating Income &amp; Expenses</b>          | <b>(27.8)</b>    | <b>(29.1)</b>    | <b>(32.0)</b>    | <b>(34.9)</b>    |
| <b>CANALS NET INCOME:</b>                           | <b>(130.3)</b>   | <b>(134.0)</b>   | <b>(136.7)</b>   | <b>(139.5)</b>   |
| <b>CONSOLIDATED NET INCOME (NYPA &amp; CANALS):</b> | <b>\$20.2</b>    | <b>\$21.0</b>    | <b>\$23.8</b>    | <b>\$26.7</b>    |

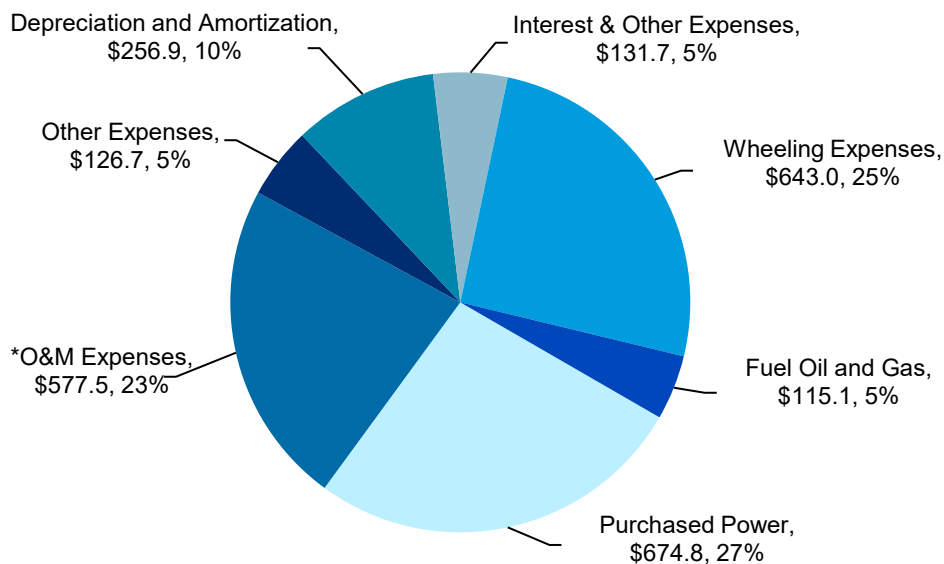
**NYPA Gross Margin Analysis**  
(In \$ Millions)

|                          | 2021           | 2022           | 2023           | 2024           |
|--------------------------|----------------|----------------|----------------|----------------|
| Merchant Margin          | \$311.5        | \$289.5        | \$287.0        | \$301.0        |
| Customer Margin          | 551.1          | 556.1          | 590.4          | 589.0          |
| Transmission Margin      | 187.6          | 190.0          | 229.3          | 284.6          |
| Other Margin             | 36.1           | 41.0           | 47.0           | 58.7           |
| <b>TOTAL MARGIN:</b>     | <b>1,086.3</b> | <b>1,076.6</b> | <b>1,153.7</b> | <b>1,233.3</b> |
| Operations & Maintenance | (472.0)        | (514.6)        | (541.7)        | (565.9)        |
| Other Expenses           | (126.6)        | (76.0)         | (74.5)         | (73.9)         |
| <b>EBIDA:</b>            | <b>\$487.7</b> | <b>\$486.0</b> | <b>\$537.5</b> | <b>\$593.5</b> |

### 2021 Budget – Sources (In \$ Millions)



### 2021 Budget – Uses (In \$ Millions)



\* Reflects NYPA's base O&M expenses plus administrative expenses less the Allocation to Capital.

**NYPA's Statement of Cash Flows\***  
(In \$ Millions)

|                                                                                                                      | 2019             | 2020             | 2021             | 2022             | 2023             | 2024             |
|----------------------------------------------------------------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Revenue Receipts:</b>                                                                                             |                  |                  |                  |                  |                  |                  |
| Sale of Power, Use of Transmission Lines,<br>Wheeling Charges and other receipts                                     | \$2,355.7        | \$2,273.4        | \$2,510.6        | \$2,542.2        | \$2,663.7        | \$2,792.0        |
| Earnings on Investments and Time Deposits                                                                            | <u>18.3</u>      | <u>36.8</u>      | <u>20.1</u>      | <u>18.3</u>      | <u>18.9</u>      | <u>13.8</u>      |
| <b>Total Revenues</b>                                                                                                | <b>2,374.0</b>   | <b>2,310.2</b>   | <b>2,530.7</b>   | <b>2,560.5</b>   | <b>2,682.6</b>   | <b>2,805.8</b>   |
| <b>Expenses:</b>                                                                                                     |                  |                  |                  |                  |                  |                  |
| Operation and Maintenance, including Transmission<br>of Electricity by others, Purchased Power and<br>Fuel Purchases | (2,113.3)        | (2,088.9)        | (2,269.9)        | (2,298.8)        | (2,359.9)        | (2,436.0)        |
| <b>Debt Service:</b>                                                                                                 |                  |                  |                  |                  |                  |                  |
| Interest on Bonds and Notes                                                                                          | (52.8)           | (64.6)           | (41.4)           | (43.2)           | (65.1)           | (104.4)          |
| Bonds and Notes Retired                                                                                              | <u>(349.0)</u>   | <u>(268.8)</u>   | <u>(0.9)</u>     | <u>(2.7)</u>     | <u>(0.9)</u>     | <u>(16.8)</u>    |
| <b>Total Debt Service</b>                                                                                            | <b>(401.8)</b>   | <b>(333.4)</b>   | <b>(42.3)</b>    | <b>(45.9)</b>    | <b>(66.0)</b>    | <b>(121.2)</b>   |
| <b>Total Requirements</b>                                                                                            | <b>(2,515.1)</b> | <b>(2,422.3)</b> | <b>(2,312.2)</b> | <b>(2,344.7)</b> | <b>(2,425.9)</b> | <b>(2,557.2)</b> |
| <b>Net Operations</b>                                                                                                | <b>(141.1)</b>   | <b>(112.1)</b>   | <b>218.5</b>     | <b>215.8</b>     | <b>256.7</b>     | <b>248.6</b>     |
| <b>Capital Receipts:</b>                                                                                             |                  |                  |                  |                  |                  |                  |
| Sale of Bonds, Promissory Notes & Commercial Paper                                                                   | 294.4            | 1,234.6          | 0.0              | 0.0              | 119.8            | 106.6            |
| Less: Repayments                                                                                                     | 0.0              | 0.0              | 0.0              | 0.0              | 0.0              | 0.0              |
| Earnings on Construction Funds                                                                                       | 0.0              | 0.0              | 0.0              | 0.0              | 0.0              | 0.0              |
| DSM Recovery Receipts                                                                                                | 0.0              | 0.0              | 0.0              | 0.0              | 0.0              | 0.0              |
| Temporary Asset Transfer Return from NYS                                                                             | 43.0             | 0.0              | 43.0             | 43.0             | 43.0             | 0.0              |
| Other                                                                                                                | <u>0.0</u>       | <u>0.0</u>       | <u>0.0</u>       | <u>0.0</u>       | <u>0.0</u>       | <u>0.0</u>       |
| <b>Total Capital Receipts</b>                                                                                        | <b>337.4</b>     | <b>1,234.6</b>   | <b>43.0</b>      | <b>43.0</b>      | <b>162.8</b>     | <b>106.6</b>     |
| <b>Capital Additions &amp; Refunds:</b>                                                                              |                  |                  |                  |                  |                  |                  |
| Additions to Electric Plant in Service and<br>Construction Work in Progress, and Other costs                         | (391.4)          | (438.8)          | (843.7)          | (883.1)          | (720.8)          | (509.0)          |
| Construction Funds - Net Transfer                                                                                    | <u>0.0</u>       | <u>0.0</u>       | <u>0.0</u>       | <u>0.0</u>       | <u>0.0</u>       | <u>0.0</u>       |
| <b>Total Capital Additions &amp; Refunds</b>                                                                         | <b>(391.4)</b>   | <b>(438.8)</b>   | <b>(843.7)</b>   | <b>(883.1)</b>   | <b>(720.8)</b>   | <b>(509.0)</b>   |
| <b>Net Capital</b>                                                                                                   | <b>(54.0)</b>    | <b>795.8</b>     | <b>(800.7)</b>   | <b>(840.1)</b>   | <b>(558.0)</b>   | <b>(402.4)</b>   |
| <b>Net Increase/(Decrease):</b>                                                                                      | <b>(\$195.1)</b> | <b>\$683.7</b>   | <b>(\$582.2)</b> | <b>(\$624.3)</b> | <b>(\$301.3)</b> | <b>(\$153.8)</b> |

\* This Statement of Cash Flows follows the format prescribed by §2801 of New York State Public Authorities Law and does not follow GASB financial statement standards.

## **(c) Budget Assumptions**

### **NYISO Revenue and Expenses**

Based on scheduled customer power needs and available electricity generated by NYPA's operating assets, the Authority buys and sells capacity and energy through markets operated by the NYISO. Various NYISO purchased power charges in combination with generation related fuel expenses comprise a large portion of NYPA's operating expenses. A significant amount of the Authority's revenues result from sales of the Authority's generation into the NYISO market for which the energy revenues are projected based on available forward price curves and the capacity revenues are estimated using end of day price marks.

### **Customer and Project Revenue**

The customers served by the Authority and the rates paid by such customers vary within the NYPA Power Programs designated to serve such loads. NYPA's power supply customers are served under contracts and tariffs approved by the Trustees.

### **St. Lawrence-FDR and Niagara Customers**

Power and energy from the St. Lawrence-FDR and Niagara hydroelectric facilities are sold under contract to municipal electric systems, rural electric cooperatives, industrial and other business customers, certain public bodies, investor-owned utilities, and out-of-state customers, with the balance sold into the NYISO market.

The charges for firm and/or firm peaking power and associated energy sold by the Authority, as applicable, to the fifty-one municipal electric systems and rural electric cooperatives in New York State; two public transportation agencies; three investor-owned utilities for the benefit of rural and domestic customers; and seven out-of-state public customers have been established on the basis of the cost to serve these loads. This Proposed Four-Year Plan Models Trustee-approved rate changes for customers as well as prospective rate changes.

Niagara and St. Lawrence-FDR's Expansion & Replacement Power, RNY and Preservation Power customers are allocated over 30% of the average generation capacity of the plants. Sale of expansion and replacement power historically had been handled on a sale-for-resale basis through National Grid and New York State Electric and Gas. However, the direct sale of low-cost hydro power to these customers commenced July 1, 2013. As a result, NYPA is now the load-serving entity for these transactions.

Legislation enacted in March 2011, effective July 2012, created a new economic development power program, the ReCharge New York Power Program ("RNYPP"), to replace two other economic development programs. RNYPP is a permanent power program administered by the Authority and the Economic Development Power Allocation Board ("EDPAB"). The RNYPP utilizes up to 455 MW of hydropower from the Authority's Niagara and St. Lawrence-FDR projects combined with up to 455 MW of other power procured by the Authority from other sources. The 910 MW of power is available for allocations to eligible new and existing businesses and not-for-profit corporations under contracts of up to seven years. The RNYPP legislation also authorizes the Authority, as deemed feasible and advisable by the Trustees, to provide annual funding of \$30 million each year for the purpose of funding a residential consumer discount program for those customers that had previously received this hydropower. Revenues earned from the sale of unused RNYPP power into the wholesale market may be used to offset the cost of these residential discounts. The Authority's Trustees have authorized the release of a total \$584 million for the period from August 2011 to December 2019 in support this residential discount program. The Authority supplemented the market revenues used to fund the residential discount program with internal funds, totaling cumulatively \$64 million from August 2011 through June 30, 2020.

In March 2019, the Trustees approved a seven-year extension of an agreement for the sale of firm hydroelectric power and energy from the St. Lawrence-FDR project to the Aluminum Company of America ("Alcoa") at its West Plant facilities. The existing contract with Alcoa, for an aggregate of 240 MW, has been executed effective April 1, 2019 through March 31, 2026, replacing prior long-term contracts. The contract extension provides for monthly Base Rate adjustments based upon on the price of aluminum on the London Metal Exchange and contains provisions for employment (450 jobs) and capital (\$14 million) commitments. Changes from the previous contract include: a reduced allocation of 240 MW, with the additional 5 MW being allocated to Arconic, a newly formed business independent of Alcoa, sold under a separate Preservation Power sale agreement; a monthly Clean Energy Standard ("CES") charge relating to Zero Emission Credits ("ZEC") and Renewable Energy Credits ("REC") that NYPA purchases which are attributable to Alcoa's load. The contract specifies a sharing mechanism for the CES charges between Alcoa, New

York State and NYPA, whereby Alcoa's share increases as the aluminum price increases. The Authority has entered into hedging contracts on the price of aluminum to mitigate potential downside risk in that market and intends to continue to do so based upon prevailing economic conditions as appropriate.

The Authority estimates that the total costs associated with the relicensing of the St. Lawrence-FDR Project in 2003 for a period of 50 years will be approximately \$224 million, of which approximately \$208 million has already been spent as of June 30, 2020. These total costs could increase in the future as a result of authorities reserved by FERC in the license for the St. Lawrence-FDR Project issued in 2003. The Authority is collecting in its rates for the sale of St. Lawrence-FDR power amounts necessary to fund such relicensing costs.

Chapter 545 of the laws of 2014 enacted the "Northern New York Power Proceeds Act" ("NNYPPA"). The NNYPPA authorizes the Authority, as deemed feasible and advisable by the Trustees, to deposit net earnings from the sale of unallocated St. Lawrence County Economic Development Power ("SLCEDP") by the Authority in the wholesale energy market into an account known as the Northern New York Economic Development Fund ("NNYED Fund") administered by the Authority, and to make awards to eligible applicants that propose eligible projects that satisfy applicable criteria. The NNYPPA established a five-member allocation board appointed by the Governor to review applications seeking NNYED Fund benefits and to make recommendations to the Authority concerning benefits awards.

SLCEDP consists of up to 20 MW of hydropower from the Authority's St. Lawrence-FDR Power Project which the Authority has made available for sale to the Town of Massena Electric Department ("MED") for MED to sub-allocate for economic development purposes in accordance with a contract between the parties entered into in 2012 (the "Authority-MED Contract"). The NNYPPA defines "net earnings" as the aggregate excess of revenues received by the Authority from the sale of energy associated with SLCEDP sold by the Authority in the wholesale energy market over what revenues would have been received had such energy been sold to MED on a firm basis under the terms of the Authority-MED Contract. For the first 5 years after enactment, the amount of SLCEDP the Authority could use to generate net earnings may not exceed the lesser of 20 MW or the amount of SLCEDP that has not been allocated by the Authority pursuant to the Authority-MED contract. Thereafter, the amount of SLCEDP that the Authority could use for such purpose may not exceed the lesser of 10 MW or the amount of SLCEDP that has not been allocated. The Authority's estimates of payments from the Authority to the NNYED Fund have been incorporated into this Proposed Four-Year Plan.

The Western New York Power Proceeds Act ("WNYPPA"), which was enacted on March 30, 2012, authorizes the Authority to deposit net earnings from the sale of unused Expansion Power and Replacement Power from the Authority's Niagara project into the Western New York Economic Development Fund ("WNY Fund") as deemed feasible and advisable by the Authority's Trustees. "Net earnings" are defined as any excess revenue earned from such power sold into the wholesale market over the revenue that would have been received had the power been sold at the Expansion Power and Replacement Power rates. Proceeds from the WNY Fund may be used to support eligible projects undertaken within a 30-mile radius of the Niagara project that qualify under the applicable criteria. The WNYPPA established a five-member allocation board appointed by the Governor. The Authority's estimates of payments from the Authority to the WNY Fund have been incorporated into this Proposed Four-Year Plan.

## SENY Governmental Customers

Various municipalities, school districts and public agencies in New York City are served by the Authority's combined cycle Zeltmann plant, the contracted output of the Astoria Energy II plant, and capacity and energy purchased by the Authority in the NYISO markets.

In 2018 and 2019, the Authority executed new supplemental long-term electricity supply agreements (2018 LTAs) with its eleven NYC Governmental Customers, including the Metropolitan Transportation Authority, the City of New York, the Port Authority of New York and New Jersey (Port Authority), the New York City Housing Authority, and the New York State Office of General Services. Under the Supplemental LTAs, the NYC Governmental Customers agreed to purchase their electricity from the Authority through December 31, 2027, with the NYC Governmental Customers having the right to terminate at any time upon at least twelve months' notice. Both, the Authority and the NYC Governmental Customers, may also terminate effective December 31, 2022 upon at least six months' notice. Under the Supplemental LTAs, fixed costs were set for each customer and are subject to renegotiation after five years. Variable costs, including fuel, purchased power and NYISO related costs, are to be set on a pro-forma cost of service basis and reconciled as a pass-through to each customer by an energy charge adjustment.

In 2008, the Authority entered into a long-term power purchase agreement with Astoria Energy II LLC for the purchase of the output of Astoria Energy II, a 550 MW plant, which was constructed and entered into commercial operation on

July 1, 2011 in Astoria, Queens, for the sole benefit of the NYC Governmental Customers. Although the Astoria Energy II power purchase contract goes through to 2031 and is beyond the electricity supply agreement under the Supplemental LTA's, the Authority's contract with the NYC Governmental Customers served by the output of Astoria Energy II is coterminous with the power purchase agreement with Astoria Energy II LLC.

Currently energy generated by the Astoria Energy II and Zeltmann plants are sold into the NYISO markets, and sale proceeds are used to offset the cost associated with the production of energy and capacity from the plants. All net costs and benefits to the Authority for both facilities are directly passed through to the NYC Governmental customers. Approximately 26% and 20% of the NYC Governmental Customer load requirements are covered by Astoria Energy II and Zeltmann plants respectively, while the remaining over 53% remain open to be sourced from the open market.

The Authority's other Southeastern New York (SENY) Governmental Customers are Westchester County and numerous municipalities, school districts, and other public agencies located in Westchester County (collectively, the "Westchester Governmental Customers"). The Authority has entered into an evergreen supplemental electricity supply agreement with all 103 Westchester Governmental Customers. Among other things, under the agreement, customers can partially terminate service from the Authority on at least two months' notice prior to the start of the NYISO capability periods. Full termination is allowed on at least one year's notice, effective no sooner than January 1 following the one-year notice. Westchester governmental customers are partially served by the Authority's four small hydroelectric plants. The remainder of the Westchester governmental customers' load requirements are supplied through energy and capacity purchased from the NYISO markets. Sales into the NYISO of energy generated by the small hydroelectric resources, as well as grandfathered and historic fixed priced transmission congestion contracts, all help to offset the cost of the energy purchased, with an energy charge adjustment mechanism in place for cost reconciliation.

### **Blenheim-Gilboa Customers**

The Blenheim-Gilboa project currently operates as a merchant plant, with power and energy not committed to any customer, but primarily used to meet the requirements of the Authority's business and governmental customers and to provide services in the NYISO markets generally at the market-clearing price. The current forecast assumes Blenheim-Gilboa will operate as a merchant plant for the upcoming four years.

### **Small Clean Power Plants ("SCPPs")**

In the summer of 2001, the Authority placed in operation ten 44 MW natural-gas-fueled SCPPs in New York City and one on Long Island, to address a potential local reliability deficiency in the New York City metropolitan area and its potential impact on statewide reliability. As a result of the settlement of litigation relating to certain of the SCPPs, the Authority has agreed under the settlement agreement to cease operations at the Vernon location, which houses two units, under certain conditions and if the Mayor of New York City directs such cessation. No such cessation has occurred. The plant at the Vernon location is assumed to be operating during the forecast period pursuant to the terms of an agreement entered into at the time of construction.

For this Proposed Four-Year Plan, it is assumed that the capacity of the SCPPs may be used by the Authority to meet its customers' capacity requirements, sold to other users via bilateral arrangements and/or sold into the NYISO capacity auctions. NYPA sells the energy produced by the SCPPs into the NYISO energy markets.

### **Flynn**

The Flynn project currently operates as a merchant plant, with capacity and energy output sold into the NYISO market. The forecast assumes Flynn operates as a merchant plant for the upcoming four years.

### **Transmission Projects**

The Authority owns approximately 1,400 circuit miles of high voltage transmission lines, and associated substations operating at voltages of 115kV, 230kV, 345kV, and 765kV. The Authority's Backbone Transmission System consists of a large subset of these transmission facilities, with major circuits such as:

## 765kV

- MSU1 (Marcy-Massena)
- MSC-7040 (Massena-Chateaugay)

## 345kV

- UE1-7 (Marcy-Edic)
- UNS-18 (Marcy-New Scotland)
- VU19 (Volney-Marcy)
- NR-2 (Niagara-Rochester)
- NS-1 (Niagara-Sommerset)
- Y-49 (Long Island Sound Cable)
- Q-35L&M (Queens-Manhattan)

## 230kV

- MA-1/MA-2 (Moses-Adirondack)
- MMS-1/MMS-2 (Moses-Massena)
- MW-1/MW-2 (Moses-Willis)

Since the formation of the NYISO in November 1999, cost recovery for the Authority's provision of transmission service over its facilities has been governed by the NYISO tariff which included an annual transmission revenue requirement ("TRR") for NYPA of \$165.4 million. The Authority receives cost recovery through the NYISO tariff mechanism known as the NYPA Transmission Adjustment Charge ("NTAC"), recovering NYPA Backbone Transmission System costs on a statewide basis after accounting for NYPA's revenues received from pre-existing customer transmission service contracts, a Transmission Service Charge assessed on customers in NYPA's upstate load zone, and other sources.

In July 2012, the Authority filed for its first TRR increase with FERC. The Authority's filing resulted in an uncontested settlement approved by FERC for a new, \$175.5 million TRR applicable to the Authority, effective August 1, 2012. The increased TRR is necessary to cover increased operating and maintenance expenses of NYPA's bulk transmission system, as well as to make necessary capital improvements.

In January 2016, the Authority filed for a transmission revenue requirement formula rate with FERC. In March 2016, FERC accepted the filing and made it effective April 1, 2016, as requested, subject to hearing and settlement judge procedures. The Authority requested a formula rate to more efficiently recover its increased capital and operating expenditures needed to maintain the reliability of its transmission system. The Authority filed an unopposed Offer of Settlement on September 30, 2016 that fully resolves the issues raised by interested parties in settlement negotiations concerning the formula rate. Separately, the annual TRR under the formula of \$190.0 million initially made effective April 1 was updated on July 1, 2016 to \$198.2 million pursuant to the formula rate annual update process. Effective July 1, 2020, the Transmission Revenue Requirement is \$276.7 million, which includes the revenue requirements for the Marcy South Series Compensation and AC Transmission projects. Annual updates commensurate with projected costs are assumed to continue throughout the forecast period.

The Authority is moving forward with its plans to replace a major section of the Moses Adirondack Line, one of the Authority's Backbone Transmission System lines. The Smart Path Reliability Project covers 78 circuit miles of 230kV transmission line from Massena to the town of Croghan in Lewis County. The project includes the replacement of obsolete wood pole structures with higher, steel pole structures, as well as replacement of failing conductors with new conductors and insulators. The line will initially operate at its current 230kV level, but the conductors and insulators will accommodate future 345kV operation.

In July 2017, the Authority received authorization under the NYISO tariff to include the costs of this replacement project in its NTAC mechanism for cost recovery of the Authority's transmission system costs, which means that the costs will be allocated to all ratepayers in the State. On November 14, 2019, the Public Service Commission granted the Authority's Article VII certificate for the project. The Authority estimates a project cost of \$484 million through project completion. This Proposed Four-Year Plan includes revenues and costs associated with the Moses Adirondack project.

In October 2020, the NYPSC adopted criteria for identifying transmission projects that are needed urgently to meet the nation-leading renewable energy goals of the Climate Leadership and Community Protection Act, identifying the Authority's proposed Northern New York Project as a high-priority project and referred it to NYPA for development and

construction in accordance with the Accelerated Energy Growth and Community Benefit Act. The Northern NY Project is a multi-faceted project that includes completion of the second phase of NYPA's 86-mile Smart Path Moses-Adirondack rebuild, rebuilding approximately 45 circuit miles of transmission eastward from Massena to the Town of Clinton, rebuilding approximately 55 circuit miles of transmission southward from Croghan to Marcy, as well as rebuilding and expanding several substations along the impacted transmission corridor. The work falls largely within NYPA's existing transmission rights-of-way. NYPA identified the multi-pronged Northern NY Project earlier this year as work that is urgently needed help unbottle existing renewable energy in the region and estimates it will result in significant production cost savings, emissions reductions, and decreases in transmission congestion. The project is estimated to result in more than 1.16 million tons of CO2 emissions avoided annually on a statewide basis, and an annual reduction of approximately 160 tons of NOx emissions from downstate emissions sources. Finally, NYPA estimates the project would result in more than \$447 million in annual congestion savings in Northern New York and will create hundreds of jobs in the North Country during construction. The costs and revenues associated with the Northern New York Project are included as part of this plan.

On August 1, 2014, the Public Policy Transmission Planning Process administered by the NYISO invited solicitations to address the AC Transmission Public Policy Need for new transmission lines to relieve the congested Central East and UPNY/SENY transmission interfaces. In June 2018, the Authority and North America Transmission ("NAT") entered into a Participation Agreement which granted the Authority the option to secure an ownership interest of up to 37.5% in the projects that they jointly proposed. In April 2019, the NYISO board selected the project proposed by LS Power Grid New York, LLC ("LS Power") (formerly known as NAT) and the Authority for Segment A (also known as the Marcy to New Scotland Upgrade Project and AC Transmission) to increase transfer capability from central to eastern New York. The project proposed by NYPA and LS Power includes the construction of over 90 circuit miles of new 345kV and 115kV transmission lines and two new substations.

In August 2019, LS Power and the Authority submitted an Article VII application to the New York Public Service Commission ("NYPSC"). If the PSC authorizes the project, construction is targeted to begin early 2021. Ultimately, the transmission lines to be rebuilt as part of the Segment A project are expected to be energized as part of the New York electrical system by the end of 2023.

The Authority originally funded 33% of the Segment A project development costs and exercised its 37.5% purchase option in July 2020, bringing the Authority's total estimated project costs to \$276 million.

FERC authorized NYPA's recovery of a facility charge for NYPA's AC Transmission project costs, adopted per NYISO filing made on behalf of NYPA. The Authority is currently recovering its costs associated with Segment A of the project through FERC's cost-recovery mechanisms, which includes an incentive return mechanism, all granted by FERC on the Authority's "Construction Work in Progress" balance, within its Annual Transmission Revenue Requirement. This Four-Year Plan models estimated revenues and costs associated with the AC Transmission project.

## Large-Scale Renewable Program

The CLCPA and current CES Order, as modified by the PSC per the Order dated October 15, 2020, requires that 70% of the State's electricity comes from renewable sources by 2030. In support of the CLCPA and CES goal of the State, the Authority issued a request for proposals in July 2020 to solicit Renewable Energy Certificates ("RECs"), energy and capacity from eligible large-scale renewable projects which include wind and solar resources. The Authority expects to award project(s) with long-term agreement(s) for the purchase of RECs that will be generated from the projects. The Authority expects to recover costs associated with the agreement(s) through sales of RECs by the Authority to the Authority's customers. The Authority anticipates that it will undertake future procurements of RECs in order to support its customers and the achievement of the Clean Energy Standard goals.

## Hudson Transmission Project

In 2011, the Trustees authorized Authority staff to enter into an agreement with Hudson Transmission Partners, LLC ("HTP") for the purchase of capacity to meet the long-term requirements of the Authority's NYC Governmental Customers and to improve the transmission infrastructure serving New York City through the transmission rights associated with HTP's transmission line (the "Line") extending from Bergen County, New Jersey in the PJM Interconnection, LLC ("PJM") transmission system, to Consolidated Edison Company of New York, Inc.'s ("Con Edison") West 49th Street substation in the NYISO. Specifically, the Authority executed a Firm Transmission Capacity Purchase Agreement ("FTCPA") with HTP under which the Authority gained the entitlement to 75% of the Line's 660 MW capacity, or 495 MW, for 20 years. The Authority's capacity payment obligations under the FTCPA began upon the Line's commencement of commercial operation, which occurred on June 3, 2013. Also, upon commercial operation, the

FTCPA obligates the Authority to reimburse HTP for the cost of interconnection and transmission upgrades in New York and New Jersey associated with the Line and to pay for all remaining upgrade costs as they are incurred. Such interconnection and transmission upgrades have been completed at a total cost to the Authority of \$334.9 million. The Authority's obligations under the FTCPA also include payment of the Regional Transmission Enhancement Plan ("RTEP") charges allocated to HTP in accordance with the PJM tariff. Such RTEP costs are significant and are discussed below.

PJM's RTEP cost allocation methodology for certain upgrades, such as the Bergen-Linden Corridor ("BLC") project built by Public Service Electric & Gas Company ("PSE&G") in New Jersey, was challenged at FERC in numerous proceedings by Con Edison, the Authority, HTP and other New York parties on the grounds that PJM has disproportionately allocated the costs of those projects to those parties. These challenges are now pending before the DC Circuit Court of Appeals. In a separate FERC proceeding (also now before the DC Circuit), the Authority challenged the RTEP share of the BLC project costs allocated to HTP that were effective May 1, 2017 as a result of Con Edison's termination of its PJM firm transmission rights. The cost allocations shifted approximately \$533 million in RTEP charges for the BLC project that had been previously allocated to Con Edison to HTP. Such costs are in addition to the \$111 million in RTEP charges for the BLC project that had been previously allocated to HTP.

In July 2017, the Authority, together with HTP, petitioned FERC to relinquish the Firm Transmission Withdrawal Rights ("FTWRs") held by HTP on the Line. HTP's FTWRs formed the basis for the allocation of RTEP costs to HTP, which are the Authority's obligation under the FTCPA. By order dated December 15, 2017, FERC granted the request, permitting HTP to relinquish its firm rights ("December 2017 Order"). Accordingly, when PJM's annual RTEP cost allocation update for 2018 was filed, the Authority's obligation to pay RTEP charges related to the BLC project was 100% eliminated for 2018 and beyond. FERC denied requests for rehearing of the December 2017 Order, but the New Jersey Board of Public Utilities ("BPU") petitioned for review before the D.C. Circuit, where the case is now pending.

On January 19, 2018, PJM filed tariff revisions that not only eliminated NYPA's cost responsibility for RTEP projects subject to annual updates (a category that included the BLC project costs), but also eliminated NYPA's cost responsibility for RTEP charges that are not generally updated each year. Though challenged by the PJM transmission owners and the BPU, NYPA was allocated zero RTEP charges by PJM for 2018, 2019 and the first quarter of 2020. In March 2020, FERC partially reversed PJM's allocation determinations, which is discussed below.

On March 31, 2017, the Authority and HTP executed an amendment to the FTCPA. In exchange for the Authority extending the cure period for HTP to replace underwater cables that have been subject to failure and which have resulted in the Line being out of service, under the amended FTCPA the Authority received HTP's assurances to pursue certain remedies at FERC concerning the termination of the 320 MW of FTWRs in order to eliminate RTEP assessments and a guarantee that if PJM RTEP assessments cannot be eliminated despite HTP's efforts to terminate the FTWRs, that HTP will cancel its interconnection service agreement ("ISA") to physically disconnect the Line from the PJM transmission system, causing termination of all RTEP allocations. The December 2017 Order and resulting PJM allocations have fulfilled the goal of eliminating the RTEP assessments associated with the BLC project (though subject to further legal processes as described above). In addition, the Authority and HTP agreed to: (a) based upon RTEP costs already paid, increase, by \$40 million, the size of the tracking account that is used to offset the cost to purchase the Line at the end of the FTCPA term, at the Authority's option, and (b) shared rights to direct power on the Line in the opposite direction of its current flow should market conditions present revenue opportunities for selling capacity and energy from New York to New Jersey. In November 2017, HTP completed the cable replacement and, pursuant to the March 31, 2017 amendments, the Authority increased the leased portion of the Line's capacity from 75% to 87.12%, bringing the total leased capacity from 495 MW to 575 MW at a monthly capacity charge rate that represents a decrease in the unit price (on a \$/MW-month basis) paid to HTP in the original FTCPA.

In 2020, FERC partially reversed PJM's January 2018 RTEP allocations, over the Authority's objections. Specifically, FERC determined that PJM's tariff did not permit the cancellation of RTEP cost responsibility for certain RTEP projects allocated using the older violations-based DFAX ("VBDFAX") methodology, which in this case applied to certain lower voltage RTEP facilities approved by PJM prior to February 2013. FERC did not disturb PJM's decision to eliminate the Authority's RTEP responsibility for the BLC project thus determining that the relinquishment of HTP's FTWRs eliminated any cost responsibility for RTEP projects allocated under the solutions-based DFAX method which applied to projects (including BLC) approved February 2013 or later. But for RTEP projects allocated under VBDFAX, FERC determined that the elimination of FTWRs did not alter cost responsibility, and that those RTEP costs had to be reinstated.

In May 2020, PJM informed NYPA that, pursuant to the FERC order, it intended to bill NYPA for the back charges for 2018, 2019 and the first half of 2020 starting in September 2020. PJM's RTEP charges total approximately \$33 million through the end of 2020, and RTEP charges related to these projects will continue into the future.

NYPA/HTP sought rehearing of the FERC order, which was denied, but an appeal is pending in the D.C. Circuit Court of Appeals. NYPA and HTP assert that the sacrifice of their firm rights and use of only non-firm rights over the HTP facility made PJM initially correct in refusing to assign any further RTEP to NYPA and that the reinstatement of those VBDFAX RTEP charges is contrary to the PJM tariff. A successful appeal would enable NYPA to receive refunds for the RTEP payments made for 2018 and beyond, and disallow any future RTEP allocations to NYPA.

It is estimated that the revenues derived from the Authority's rights under the FTCPA will not be sufficient to fully cover the Authority's costs under the FTCPA during the 20-year term of the FTCPA.

From June 2013 through August 2020, the Authority has paid approximately \$106 million in PJM RTEP charges for the line. As noted above, the reinstatement of PJM RTEP charges for 2018/2019/2020 will result in NYPA incurring approximately \$33 million in PJM RTEP charges for 2020. In addition, the Authority will accrue approximately \$1.1 million per month effective 2021 through the term of the agreement which ends in 2033.

In August 2020, the Authority estimated that its net cost per this order will be an additional \$13 million per year for 2021 through 2033 and HTP inclusive of this amount is now estimated to be approximately \$100 million per year net cost. These net cost estimates were based on projections of the capacity payment obligations, the costs of interconnection and transmission upgrades, and energy revenues.

### **Purchased Power Expenses**

Capacity, energy and ancillary service purchases made on behalf of customers (except for those made through previously approved purchased power agreements) are assumed to be transacted at the market clearing price in the wholesale market. For purposes of developing this Proposed Four-Year Plan, projected energy rates are based on published forward price curves, while capacity rates are based on internally developed capacity curves using external pricing sources such as broker quotes and trading platforms.

### **Fuel Expenses**

Fossil-fuel purchases in this Proposed Four-Year Plan are based on expected net generation levels determined through the use of an economic dispatch model for the Authority's plants and on available forward fuel price curves. Fuel expenses also include the costs associated with emission credit requirements under the Regional Greenhouse Gas Initiative ("RGGI"). RGGI requires the Authority to buy emission credits for its fossil-fuel plants, and the Authority also purchases such credits for the contracted Astoria Energy II plant. The projections for RGGI costs are based on projected emission rates and forecasted consumption of natural gas and oil, with such costs recovered either through specific customer contract pass-through provisions or from the wholesale market.

### **Wheeling Expenses**

Wheeling (i.e., the transmission and/or delivery of power and energy to customers over the lines of a third party) expenses are based on contractual and/or tariff rates of the service provider and are recovered through pass-through provisions in customer contracts.

### **Canal Corporation**

Effective January 1, 2017, the Canal Corporation became a subsidiary of the Authority, and the Authority assumed certain powers and duties relating to the Canal System to be exercised through the Canal Corporation.

The Canal Corporation operates at a loss and is expected to require substantial operating and maintenance support and capital investment. The Canal Corporation's expenses are expected to be funded by transfers of funds from the Authority. Any transfer of funds would be subject to approval by the Authority's Board of Trustees and compliance with the Authority's General Resolution Authorizing Revenue Obligations, as amended and supplemented. Certain expenses eligible for reimbursement are expected to be reimbursed to the Authority by moneys held in the Canal Development Fund maintained by the State Comptroller and the Commissioner of Taxation and Finance.

Given the age of the Canal System, the Authority expects that significant maintenance and capital investments will be required to assure the Canal System's continuing operation. The Authority's budget and financial plan for 2021-2024 includes Canal-related operating expenditures of approximately \$110 million per year and capital expenditures of approximately \$80 million per year. The Authority will continue to evaluate the condition of the Canal System and

expects to allocate additional funding if deemed necessary through its annual budgeting process or reduce funding if efficiencies are found.

### **Reimagine the Canals Initiative**

On January 29, 2020, the Board of Trustees authorized an investment of \$300 million over five years for the Reimagine the Canals Initiative (“Reimagine the Canals Initiative”) and approved \$30 million to fund the Reimagine the Canals Initiative in 2020. The Reimagine the Canals Initiative encompasses three prongs: (1) \$100 million of funding for economic development projects in communities along the Canal System, (2) \$65 million of funding for projects that will help prevent ice jams and related flooding, and (3) \$135 million of funding for projects related to mitigation of drought impacts on agriculture, expansion of fishing opportunities, flood mitigation, invasive species prevention, and ecosystem restoration.

### **AGILe**

The Authority, in collaboration with the State utilities, NYSEERDA and NYISO, has developed an advanced grid innovation lab for energy (“AGILe”) to create new tools to better monitor, control, accommodate and respond to the evolving energy sector. On July 25, 2017, the Board of Trustees authorized capital expenditures in the amount of \$20 million for the initial phase of AGILe, which has since commenced. Costs to the Authority are not expected to exceed \$50 million through final build-out of the facility. Upon completion, operating and maintenance costs are expected to be shared among AGILe participants. As of June 30, 2020, approximately \$4.9 million has been spent.

### **Electric Vehicle Acceleration Initiative**

In May 2018, the Authority’s Trustees approved an overall allocation of up to \$250 million to be used through 2025 for an electric vehicle acceleration initiative and authorized \$40 million for the first phase of the initiative. The Authority will own and operate a charging network of 800 DC fast chargers across the State, the first of which became operational in September 2020. As of June 30, 2020, approximately \$3 million has been spent.

### **Investment Income**

Investment of the Authority’s funds is administered in accordance with the applicable provisions of the Bond Resolution and with the Authority’s investment guidelines. These guidelines comply with the New York State Comptroller’s investment guidelines for public authorities and were adopted pursuant to Section 2925 of the New York Public Authorities Law.

The Authority’s investments include, but are not limited to (a) collateralized certificates of deposit, (b) direct obligations of or obligations guaranteed by the United States of America or the State of New York, (c) obligations issued or guaranteed by certain specified federal agencies and any agency controlled by or supervised by and acting as an instrumentality of the United States Government, and (d) obligations of any state or any political subdivision thereof or any agency, instrumentality or local government unit of any such state or political subdivision which is rated in any of the three highest long-term rating categories, or the highest short-term rating category, by nationally recognized rating agencies. The Authority’s investments in the debt securities of Federal Home Loan Bank rated Aaa by Moody’s Investors Services and AA+ by Standard & Poor’s; Federal National Mortgage Association, Federal Farm Credit Bank and Federal Home Loan Mortgage Corp. were rated Aaa by Moody’s Investors Services, AAA by Fitch Ratings, and AA+ by Standard & Poor’s. All of the Authority’s investments in U.S. debt instruments are issued or explicitly guaranteed by the United States Government.

As part of its Series 2020 financing, NYPA raised over \$1.2 billion the proceeds of these 2020 Bonds will be used, together with other available funds, to finance capital expenditures related to the Authority’s transmission assets and other capital projects, including reimbursement for prior capital spending, defease to maturity, or call for redemption prior to maturity, a portion of the Authority’s Series 2011 A Revenue Bonds, refund a portion of the CP Notes which have been or are being issued to refund certain outstanding Bonds, pay capitalized interest, and pay the costs of issuance of the 2020 Bonds. Certain proceeds of the 2020 Bonds will be used to reimburse the Authority for moneys previously spent on capital expenditures. The remaining proceeds from the transaction were used to bolster NYPA’s liquidity and restructure near-term debt service, while supporting NYPA’s clean energy goals.

In addition to the green aspects of the transaction, the financing was structured to match debt service to the lifespan of the utility's assets, including restructuring existing obligations. The transaction locked in the lowest interest rate achieved in NYPA's history.

#### Summary of the 2020 Transaction: Summary Information

|                                   | 2020A                                           | 2020B (Taxable) |
|-----------------------------------|-------------------------------------------------|-----------------|
| <b>Bond Ratings (M/S/F)*:</b>     | <b>Aa2 (Stable) / AA (Stable) / AA (Stable)</b> |                 |
| <b>Par Amount</b>                 | \$1,120,610,000                                 | \$114,020,000   |
| <b>Green Bonds:</b>               | <b>\$791,620,000</b>                            | <b>-</b>        |
| <b>All-in Total Interest Cost</b> | 3.63%                                           | 2.87%           |
| <b>Amortization</b>               | 2039 – 2060                                     | 2034 – 2039     |
| <b>Average Life</b>               | 31.5 years                                      | 17.2 years      |

\* Current rating at the time of Proposed Four-Year Plan

## Operations and Maintenance Expenses

NYPA's O&M plan for 2021-2024 is as follows:

### Operations and Maintenance Forecast by Cost Element (In \$ Millions)

|                                                   | 2021           | 2022           | 2023           | 2024           |
|---------------------------------------------------|----------------|----------------|----------------|----------------|
| <b>Payroll:</b>                                   |                |                |                |                |
| Regular Pay                                       | \$243.9        | \$250.2        | \$256.7        | \$263.4        |
| Overtime                                          | 12.4           | 12.8           | 13.2           | 13.6           |
| Other Payroll                                     | <u>7.3</u>     | <u>7.4</u>     | <u>7.5</u>     | <u>7.6</u>     |
| <b>Total Payroll</b>                              | <b>263.6</b>   | <b>270.4</b>   | <b>277.4</b>   | <b>284.6</b>   |
| <b>Benefits:</b>                                  |                |                |                |                |
| Employee Benefits                                 | 48.6           | 49.8           | 51.0           | 52.3           |
| Pension                                           | 31.3           | 32.1           | 32.9           | 33.8           |
| OPEB                                              | 40.6           | 40.7           | 40.7           | 40.7           |
| FICA                                              | <u>17.8</u>    | <u>18.2</u>    | <u>18.7</u>    | <u>19.2</u>    |
| <b>Total Benefits:</b>                            | <b>138.3</b>   | <b>140.8</b>   | <b>143.3</b>   | <b>146.0</b>   |
| <b>Materials/Supplies</b>                         | <b>27.7</b>    | <b>28.3</b>    | <b>29.1</b>    | <b>29.9</b>    |
| <b>Fees</b>                                       | <b>11.3</b>    | <b>11.7</b>    | <b>12.0</b>    | <b>12.4</b>    |
| <b>Office &amp; Station</b>                       | <b>29.0</b>    | <b>29.8</b>    | <b>30.6</b>    | <b>31.5</b>    |
| <b>Maintenance Repair &amp; Service Contracts</b> | <b>145.2</b>   | <b>166.0</b>   | <b>168.6</b>   | <b>175.1</b>   |
| <b>Consultants</b>                                | <b>58.2</b>    | <b>65.7</b>    | <b>67.2</b>    | <b>68.9</b>    |
| <b>Charges to:</b>                                |                |                |                |                |
| Outside Agencies                                  | 19.5           | 20.0           | 20.5           | 21.2           |
| Capital Programs                                  | <u>(63.9)</u>  | <u>(65.4)</u>  | <u>(66.9)</u>  | <u>(68.5)</u>  |
| <b>Total Charges:</b>                             | <b>(44.3)</b>  | <b>(45.3)</b>  | <b>(46.4)</b>  | <b>(47.3)</b>  |
| <b>Research &amp; Development</b>                 | <b>13.1</b>    | <b>15.1</b>    | <b>15.1</b>    | <b>15.1</b>    |
| <b>Total NYPA O&amp;M:</b>                        | <b>\$642.1</b> | <b>\$682.5</b> | <b>\$696.9</b> | <b>\$716.1</b> |

## Depreciation and Amortization Expenses

Depreciation of capital assets is generally provided on a straight-line basis over the estimated lives of the various classes of capital assets. The related depreciation provisions on December 31, 2019 expressed as a percentage of average depreciable capital assets was 2.6%.

## Other Expenses

The Other Expenses category largely reflects various accruals and other miscellaneous expenses (e.g., payments to the NNYED Fund and WNY Fund), some of which require Trustee authorization on a case-by-case basis.

#### (d) Self – Assessment of Budgetary Risks

Set forth below is a summary of key risks associated with the Authority's assets and operations. The following discussion of risks is intended only as a summary and does not purport to identify all of the risk factors that may affect the Authority's assets and operations. Any one or more of the factors discussed and others could adversely affect the Authority's operations, assets, revenues, and expenses to an extent that cannot be determined at this time.

As an organization, our business units represent the first line of defense in identifying and mitigating risk within each of their verticals. This is complemented by a robust, ongoing assessment process, overseen by the Authority's Risk group and through legal review. During the annual budgeting process, the Financial Planning team is responsible for consolidating information received from various departments at NYPA that are inputs into our financial forecast. The team actively engages and challenges all assumptions as we work toward representing the most likely future financial outcome. Additionally, the Trustees have authorized an enterprise-wide risk management program and through an established Risk Management group supporting the business lines with the identification, assessment, mitigation and monitoring of risks.

#### Enterprise Level Risks

##### Regulatory Environment Risks

On August 1, 2016, the NYPSC issued an order establishing a Clean Energy Standard (the "CES Order") to implement the clean energy goals of the State Energy Plan. Pursuant to the CES Order, load serving entities identified in the order are required to purchase "Zero Emission Credits" ("ZECs") from the NYSERDA to support the preservation of existing at risk zero emissions nuclear generation. The Authority is not subject to NYPSC jurisdiction for purposes of the CES Order but has assumed an obligation to purchase ZECs consistent with the terms of the CES Order and intends to seek recovery of such costs from the Authority's customers. On January 31, 2017, the Authority's Trustees authorized (a) participation in the NYPSC's ZEC program and (b) execution of an agreement with NYSERDA to purchase ZECs associated with the Authority's applicable share of energy sales. On April 1, 2020, the Authority and NYSERDA executed an agreement under which the Authority committed to purchase ZECs in a quantity based on its proportional load in the New York control area. The agreement is in effect until April 1, 2029. As of August 2020, the Authority estimates that it will incur ZEC purchase costs associated with participation in the ZEC program of approximately \$268.5 million in aggregate over the 2020-2023 period, of which approximately \$14.4 million is not expected to be recovered under customer contracts that predate the adoption of the CES Order. As of June 30, 2020, the Authority has paid \$167.5 million in ZEC purchase costs.

The Regional Greenhouse Gas Initiative is a cooperative effort by Northeastern and Mid-Atlantic states, including New York, to reduce carbon dioxide emission levels. Participating states have established a regional carbon dioxide emissions cap from the power sector (fossil fuel-fired power plants 25 MW or greater). The emissions cap reduces by 2.5% annually until 2020. Central to this initiative is the implementation of a multi-state cap-and-trade program with a market-based emissions trading system. The program requires electricity generators to hold carbon dioxide allowances in a compliance account in a quantity that matches their total emissions of carbon dioxide for the compliance period. The Authority's Flynn plant, the SCPPs, and Zeltmann plant are subject to the RGGI requirements as is the Astoria Energy II plant. The Authority has participated in program auctions to acquire carbon dioxide allowances, which the Authority requires to cover operation of its fossil-fueled power plants and the Astoria Energy II plant and expects to recover RGGI costs through its power sales revenues. The number of allowances offered in the auction by RGGI cap and trade program was reduced from allowances covering 165 million tons of carbon dioxide emissions in 2013 to 60.3 million tons in 2018 and will decline by 2.5% each year through 2020. On December 19, 2017, the RGGI states released an updated Model Rule that includes a further decline of 2.275 million tons each year beginning in 2021, resulting in an additional 30% regional cap reduction between 2020 and 2030. The Authority is monitoring federal legislation and proposed programs that would impact RGGI.

On June 19, 2019, the United States Environmental Protection Agency ("EPA") released its final Affordable Clean Energy ("ACE") rule. This rule replaces the Clean Power Plan ("CPP") rule. The ACE rule established guidelines for states, including New York, to use for carbon dioxide emissions from coal-fired plants and other regulations for implementation of the Clean Air Act Section 111 (d) for existing power plants. Previously, the CPP Rule was stayed by the U.S. Supreme Court on February 9, 2016 pending disposition of petitions for review before the U.S. Court of Appeals for the District of Columbia Circuit. Thereafter, the D.C. Circuit Court granted EPA's motion to suspend cases challenging the CPP Rule, which the EPA has now rescinded and replaced, and is likely moot pending the D.C. Circuit

Court formally ending the litigation. On August 13, 2019, twenty-two states, including New York, and seven local governments filed a petition with the U.S. Court of Appeals for the D.C. Circuit challenging the ACE rule (on August 14, 2019, a coalition of health and environmental groups followed suit by filing a petition challenging ACE). With regard to greenhouse gas emissions in New York, on July 18, 2019, Governor Andrew Cuomo signed the New York State Climate Leadership and Community Protection Act that sets a goal of net-zero carbon emissions for the entire state, not limited to the energy sector, by 2050 (85% reduction of greenhouse gas emissions from 1990 levels and implement measures to offset the remaining 15%), with a requirement for 70% of the state's electricity to be from renewable sources by 2030 (see discussion in "New Legislation Affecting the Authority"). The Authority continues to monitor developments in this area.

During 2011, the EPA issued a series of rulings to establish the Cross-State Air Pollution Rule ("CSAPR"), which was updated in 2016. The CSAPR establishes emission allowance budgets for sulfur dioxide and nitrogen oxides for eastern states, including New York, and requires power plants in those states to hold allowances to cover their emissions. Certain trading of allowances is authorized under the CSAPR. In July 2018, a proposed determination published by the EPA found that the 2016 CSAPR Update to the National Ambient Air Quality Standards ("NAAQS") was sufficient to address the good neighbor provisions of the Clean Air Act, and that no further rulemaking is required to address out-of-state emissions as additional upwind reductions are not required to meet the 2008 ozone NAAQS. The U.S. Court of Appeals for the D.C. Circuit has not yet decided the legality of the CSAPR 2016 update (oral arguments were heard by the Court in October 2018). The Authority continues to operate its fossil-fueled plants within the allocated allowances and anticipates that operation of its fossil-fueled plants will not be impacted by CSAPR.

Congressional, state, and regulatory action for the increased regulation of air, water and contaminants is periodically considered, and there are potential legislative and regulatory proposals which may affect the electric utility industry, including the Authority, in the future. The impact on the Authority's operations of any such proposals is not presently predictable or quantifiable.

On July 18, 2019, the State enacted the "New York State Climate Leadership and Community Protection Act" as Chapter 106 of the Laws of 2019 ("Chapter 106"). As presently drafted, the date upon which most provisions of Chapter 106 will become effective will depend on the date that related legislation becomes effective.

In its present form, several provisions of Chapter 106 could potentially impact the Authority's business and operations, such as the following: (1) provisions authorizing the New York State Department of Environmental Conservation to promulgate regulations establishing limits State-wide greenhouse gas ("GHG") emissions and to ensure compliance with such limits; (2) a requirement that specified State entities, including the Authority, adopt regulations to contribute to achieving statewide GHG emissions; (3) a requirement that State entities, including the Authority, assess and implement strategies to reduce GHG emissions; (4) consideration of whether actions that the Authority would undertake in the course of its operations are consistent with State GHG emission limits that will be established pursuant the enactment; and (5) potential allocation or realignment of resources to support State clean energy and energy efficiency goals for disadvantaged communities.

Many of the provisions of Chapter 106 that could impact the Authority are not likely to be implemented for years based on deadlines established in the enactment. Therefore, the Authority is not in a position at this time to evaluate the impact of any particular provision of Chapter 106 on the Authority's business and operations.

The Authority has flexible rate-setting authority for many of its power sales agreements with customers; however, due to FERC's jurisdiction over the Authority's transmission revenue requirement, the Authority's transmission cost recovery must adhere to FERC standards. In 2017, the Authority filed for a formula rate annual TRR consistent with those standards. The formula rate annual TRR is incorporated into the NYISO Open Access Transmission Tariff ("OATT"). This Proposed Four-Year Plan assumes full recovery of eligible future costs under the provisions of the NYISO OATT.

## Legislative Environment Risks

A series of legislative enactments have called for the Authority to subsidize business customers and the State's general fund. Legislation enacted into law, as part of the 2000-2001 State budget, as amended up to the present time, has authorized the Authority as deemed feasible and advisable by the Trustees, to make a series of voluntary contributions into the State treasury.

In the past, the Authority has, from time to time, made voluntary contributions or payments to the State or as otherwise authorized by legislation. Such payments were authorized by legislation and have been conditional upon the Trustees' determination that such payments are "feasible and advisable". Any such contribution or transfer of funds must (i) be

authorized by law (typically, legislation enacted in connection with the State budget), and (ii) satisfy the requirements of the Bond Resolution. The Bond Resolution requirements to withdraw moneys “free and clear of the lien and pledge created by the (Bond) Resolution” are as follows: (1) such withdrawal must be for a “lawful corporate purpose as determined by the Authority,” and (2) the Authority must determine “taking into account, among other considerations, anticipated future receipt of Revenues or other moneys constituting part of the Trust Estate, that the funds to be so withdrawn are not needed” for (a) payment of reasonable and necessary operating expenses, (b) an Operating Fund reserve for working capital, emergency repairs or replacements, major renewals, or for retirement from service, decommissioning or disposal of facilities, (c) payment of, or accumulation of a reserve for payment of, interest and principal on senior debt, or (d) payment of interest and principal on subordinate debt.

In May 2011, the Authority’s Trustees adopted a policy statement (Policy Statement) which relates to, among other things, voluntary contributions, transfers, or other payments to the State by the Authority after that date. The Policy Statement provides, among other things, that in deciding whether to make such contributions, transfers, or payments, the Authority shall use as a reference point the maintenance of a debt service coverage ratio of at least 2.0 (this reference point should not be interpreted as a covenant to maintain any particular coverage ratio), in addition to making the other determinations required by the Bond Resolution. The Policy Statement may at any time be modified or eliminated at the discretion of the Authority’s Trustees.

The 2020-2021 Enacted State Budget contains a provision authorizing the Authority as deemed “feasible and advisable by its trustees” to transfer to the State treasury to the credit of the general fund \$20 million for the State fiscal year commencing April 1, 2020, the proceeds of which will be utilized to support energy-related State activities. This amount will be fully accrued by December 31, 2020 but is not expected to be paid by that date.

The Authority cannot predict what additional contributions to the State may be authorized in the future. The Trustees’ decision as to whether and to what extent such payments are feasible and advisable will be made based on the exercise of their fiduciary responsibilities and in light of the requirements of the Authority’s Bond Resolution, other legal requirements, and all the facts and circumstances known to them at the time of the decision.

In addition to the authorization for the voluntary contributions, as a result of budget legislation enacted in February 2009, the Authority was requested to make certain temporary asset transfers to the State of funds held in reserves. Pursuant to the terms of a Memorandum of Understanding dated February 2009 (the “MOU”) between the State, acting by and through the State’s Director of Budget, and the Authority, the Authority transferred \$215 million associated with its Spent Nuclear Fuel Reserves (“Asset B”) in March 2009 and \$103 million of funds set aside for future construction projects (“Asset A”) in September 2009. The Authority subsequently executed amendments to the MOU in 2014 and 2017 that extended the return date for the Asset A and Asset B, respectively, and provided for their return in installments over several years, subject to annual appropriation by the State Legislature. The Authority received cumulative payments of \$103 million with respect to Asset A through 2018. As of June 30, 2020, the Authority has received cumulative payments of \$86 million on Asset B. Pursuant to the amended MOU, the remaining payments on Asset B of \$129 million are to be made by the State from 2020-2024, subject to annual appropriation by the State Legislature.

Both temporary transfers were authorized by the Authority’s Trustees and made in 2009.

In lieu of interest payments, the State waived certain future payments from the Authority to the State, including payments to which the State was entitled, pursuant to Public Authorities Law §2975, under a governmental cost recovery process for the costs of central governmental services.

On April 24, 2014, the Authority and the State executed an Amendment to the MOU which provides that the State shall, subject to appropriation by the State Legislature, return the \$103 million (Asset A) in five annual installments through State Fiscal Year 2018-2019. As of September 30, 2018, the Authority has received all installment payments, totaling \$103 million on Asset A.

The Authority and the State executed a Second Amendment to the MOU, dated as of June 30, 2017, that provides for the return to the Authority of the \$215 million (Asset B) in the following amounts and by no later than September 30 of each of the following State fiscal years: (1) \$22 million for State Fiscal Year 2017-18, (2) \$21 million for State Fiscal Year 2018-19, (3) \$43 million for State Fiscal Year 2019-20, (4) \$43 million for State Fiscal Year 2020-21, (5) \$43 million for State Fiscal Year 2021-22, and (6) \$43 million for State Fiscal Year 2022-23. The obligation of the State to return the moneys transferred by the Authority to the State is subject to annual appropriation by the State Legislature. As of October 1, 2019, the Authority has received installment payments of \$86 million on Asset B. In the Second Amendment to the MOU, the Authority and the State also agreed to enter into alternative cost recovery agreements for each of State Fiscal Year 2017-18 through State Fiscal Year 2022-23 that the asset transfers have not been fully

returned to the Authority. The alternative cost recovery agreements would relieve the Authority of any obligation to make up to \$5 million in cost recovery assessment payments to the State in each year. In the event that the cost recovery assessment pursuant to Public Authorities Law §2975 for a given year exceeds \$5 million, the assessment due from the Authority would be limited to the difference between the assessment and \$5 million. This Proposed Four-Year Plan assumes no such assessments during the 2021-2024 forecast period.

Section 1011 of the Power Authority Act (“Act”) constitutes a pledge of the State to holders of Authority obligations not to limit or alter the rights vested in the Authority by the Act until such obligations together with the interest thereon are fully met and discharged or unless adequate provision is made by law for the protection of the holders thereof. Several bills have been introduced into the State Legislature, some of which propose to limit or restrict the powers, rights and exemption from regulation which the Authority currently possesses under the Act and other applicable law, or otherwise would affect the Authority’s financial condition or its ability to conduct its business, activities, or operations, in the manner presently conducted or contemplated by the Authority. It is not possible to predict whether any of such bills or other bills of a similar type which may be introduced in the future will be enacted. In addition, from time to time, legislation is enacted into New York law which purports to impose financial and other obligations on the Authority, either individually or along with other public authorities or governmental entities. The applicability of such provisions to the Authority would depend upon, among other things, the nature of the obligations imposed and the applicability of the pledge of the State set forth in Section 1011 of the Act to such provisions. There can be no assurance that the Authority will be immune from the financial obligations imposed by any such provision.

Actions taken by the State Legislature or the Executive Branch to cause voluntary contributions or other obligation upon the Authority and which attempt to constrain the discretion of or bypass the Authority’s Trustees could negatively affect net income and possibly harm the Authority’s credit ratings.

## Hydro Generation Risk

The Authority’s net income is highly dependent upon generation levels at its Niagara and St. Lawrence-FDR Projects. The generation levels themselves are a function of the hydrological conditions prevailing on the Great Lakes, primarily, Lake Erie (Niagara Project) and Lake Ontario (St. Lawrence-FDR Project). Long-term generation level at the two hydroelectric projects is approximately 20.3 terawatt-hours (“TWH”) annually. The Authority’s hydroelectric generation forecast is 24.5 TWH in 2021, 24.0 TWH in 2022, 23.7 TWH in 2023, and 23.5 TWH in 2024.

However, these generation amounts are forecasted values and environmental / external factors (e.g., climate change, flooding, ice, storm frequency and duration) can cause hydrological conditions to vary considerably from year to year. Hydro Generation may potentially also face risks due to transmission line constraints within the region (e.g., spilling extra hydro flow; high transmission prices) and increased competitiveness of other types of renewable generation.

The Authority conducted high and low hydroelectric generation sensitivities for 2021-2024 that estimated the potential net income that could result over a reasonable range of hydroelectric generation occurrences. The sensitivities were calculated only for merchant generation as merchant revenues has significant impact on Authority’s net income. The effects on estimated net income, assuming all other factors remain unchanged, were as follows:

| Year        | Low Generation                        |                        | High Generation                       |                        |
|-------------|---------------------------------------|------------------------|---------------------------------------|------------------------|
|             | Net Merchant Hydroelectric Generation | NYPA Net Income Change | Net Merchant Hydroelectric Generation | NYPA Net Income Change |
|             | (In TWH)                              | (In \$ Millions)       | (In TWH)                              | (In \$ Millions)       |
| <b>2021</b> | 7.7                                   | (\$14.9)               | 9.2                                   | \$17.0                 |
| <b>2022</b> | 6.6                                   | (\$30.7)               | 9.0                                   | \$28.0                 |
| <b>2023</b> | 6.2                                   | (\$40.4)               | 8.9                                   | \$26.0                 |
| <b>2024</b> | 5.7                                   | (\$53.9)               | 8.3                                   | \$47.1                 |

## Sustained Margin Reduction and Commodity Market Volatility Risk

Through its participation in the NYISO and other commodity markets, NYPA is subject to electric energy price, fuel price and electric capacity price risks that impact the revenue and purchased power streams of its facilities and customer market areas. Such volatility can potentially have detrimental effects on NYPA's financial condition. To moderate cost impacts to its customers and itself, NYPA, at times, hedges market risks via the use of financial instruments and physical contracts. Hedges are transacted by NYPA to mitigate the cost of energy or related products needed; to mitigate risk related to the price of energy and related products sold by NYPA; to mitigate risk related to electric margins (electric sales versus fuel use) where NYPA owns generation or other capacity; and mitigation of geographic cost differentials of energy procured or sold for transmission or transportation to an ultimate location. Hedges effectuated on behalf of NYPA's customers are passed through, at cost, as provided for in customer contracts. Commodities able to be hedged include, but are not limited to, natural gas, natural gas basis, electric energy, electric capacity and congestion costs associated with the transmission of electricity.

On July 21, 2010, President Obama signed into law the Dodd-Frank Wall Street Reform and Consumer Protection Act ("DF Act") which addresses, among other things, interest rate and energy related commodity swap transactions of the type in which the Authority engages. The requirements and processes are set forth in regulations promulgated by the Commodities Futures Trading Commission ("CFTC"). Pursuant to CFTC rules, the Authority, as a public entity and electric utility which uses swaps solely to manage its risk, is exempted from posting collateral beyond that of any existing credit support annexes in support of its open over-the-counter hedge positions. These CFTC rules are not anticipated to have significant impact on the Authority's liquidity and/or future risk mitigation activities. CFTC DF Act rules are still being promulgated, and the Authority will continue to monitor their potential impact on the Authority's liquidity and/or future risk mitigation activities.

## Disruptive Innovation and Customer Energy Choices

Transformative technologies and customer empowerment are creating uncertainty for the Authority and the electric utility industry that can produce new business opportunities or reduced demand for electric energy. Through its Strategic Planning and Risk Management processes, the Authority regularly evaluates its mission, objectives, and customer needs and seeks to appropriately position the Authority to effectively meet the challenges of the transforming electric industry through implementation of initiatives such as a long-term asset management strategy and a suite of customer solutions including new/modified product offerings. The impact on the Authority's operations of any such industry transformation is not presently predictable or quantifiable.

## Attract and Retain a Qualified Workforce

Like many other industries, the power and utility sector is realizing increased competition for, and a general shortage of, talent in high skilled areas. This trend is expected to continue and be further impacted by transformations in the industry where new technologies are being developed and deployed. The Authority recognizes the uncertainty with being able to attract and retain the skills and competencies needed to meet stated objectives and regularly evaluates and positions its recruiting, talent development and benefits programs accordingly, through its workforce planning strategic initiative and other ongoing efforts.

## Cyber Security

The Federal Government recognizes the electric utility industry as critical infrastructure for the United States and works closely with the industry to ensure awareness of ongoing threats and that appropriate protections are in place against both physical and cyber-attacks. The Authority constantly assesses the nature of the Physical and Cyber Security risks and adjusts its resources to best anticipate and respond to any threats. With over 1,400 circuit-miles of high voltage transmission lines and 16 power generation facilities across New York State, the Authority recognizes the critical nature of its assets. Investments to harden both physical and cyber assets and their related infrastructure are continually needed to minimize potential adverse impacts to the bulk electric system, detect and deter sabotage attempts, and protect the Authority and customer information. In addition to the infrastructure investments the Authority further mitigates its Cyber risk through the purchase of insurance.

## Business Continuity

A catastrophic natural event such as severe weather, flooding or earthquake can negatively affect the operability of Authority assets and the bulk electric system. The Authority regularly evaluates the resiliency of its assets. In addition, the Authority has implemented disaster planning programs relating to Emergency Management, Disaster Recovery and Business Continuity. These plans are based on the specific, unique natural threats at each of its generation facilities. The Authority regularly conducts drills and exercises in order to ensure advance preparation for these types of events. The Authority maintains close working relationships with local first responders and government agencies to ensure its ongoing preparedness.

An outbreak of disease or similar public health threat, such as the COVID-19 pandemic, or fear of such an event, could have an adverse impact on the Authority's financial condition and operating results.

## Canal Corporation

The Authority has identified key risk areas relating to the Canal Corporation and continues to employ and assess risk mitigation options across multiple enterprise risk fronts in an effort to manage or reduce potential exposures. As part of the ongoing Canals management strategy, the Authority will adjust and allocate resources accordingly.

## COVID-19

The COVID-19 pandemic has changed societal and business operation norms and impacted the risk profiles of organizations globally. Despite the uncertainty associated with COVID-19 (i.e. vaccine development, treatment advancements, phase 2 and 3 infection waves) NYPA is mitigating its risk through proactive and robust pandemic responses plans. The Authority is well positioned to address future pandemic and business concerns by employing mitigation strategies such as an Incident Command System, Business Continuity Plans, and Return to Work procedural and physical modifications.

## Critical Infrastructure

As a generation and transmission business, the Authority is exposed to potential critical infrastructure failure that may lead to service disruption, injury and/or degradation of system reliability impacting financial results. The Authority engages in several activities, including the recent ISO-55001 Asset Management Certification, in an effort to mitigate these risks such as the purchase of insurance, redundancy of major equipment, capital investments, and a robust operational maintenance program.

## Workforce Health and Safety

As a generation and transmission business, the Authority is exposed to a variety of health and safety risks. The health and safety of NYPA's workforce, customers, contractors and the citizens of New York are of the highest priority to the Authority. The Authority has put in place multiple levels of controls, policies, procedures, and training programs in support of reducing and/or eliminating health and safety incidents.

## Litigation Risk

### St. Regis Litigation

In 1982 and again in 1989, several groups of Mohawk Indians, including a Canadian Mohawk tribe, filed lawsuits (the St. Regis litigation) against the State, the Governor of the State, St. Lawrence and Franklin counties, the St. Lawrence Seaway Development Corporation, the Authority and others, claiming ownership to certain lands in St. Lawrence and Franklin counties and to Barnhart, Long Sault and Croil islands. These islands are within the boundary of the Authority's St. Lawrence-FDR Project and Barnhart Island is the location of significant Project facilities. Settlement discussions were held periodically between 1992 and 1998. In 1998, the Federal government intervened on behalf of all Mohawk plaintiffs.

The parties agreed to a land claim settlement, dated February 1, 2005, which if implemented would have included, among other things, the payment by the Authority of \$2 million a year for 35 years to the tribal plaintiffs and the provision

of up to 9 MW of low cost Authority power for use on the reservation. The legislation required to effectuate the settlement was never enacted and the litigation continued.

In 2013, all claims against the Authority were dismissed and the lawsuit against the Authority was concluded. On May 28, 2014, the State of New York, the St. Regis Mohawk Tribe, St. Lawrence County and the Authority executed a Memorandum of Understanding (“St. Regis MOU”) that outlined a framework for the possible settlement of all the St. Regis land claims. In the St. Regis MOU, the Authority endorses a negotiated settlement that, among other terms and conditions, would require the Authority to pay the Tribe \$2 million a year for 35 years and provide up to 9 MW of its hydropower at preference power rates to serve the needs of the Tribe’s Reservation. The St. Regis MOU would require an Act of Congress to forever extinguish all Mohawk land claims prior to such a settlement becoming effective.

Any settlement agreement, including the terms endorsed in the St. Regis MOU, would in the first instance need to be negotiated and agreed upon by all parties to the St. Regis litigation, including parties that did not execute the St. Regis MOU, such as the two other Mohawk groups, the federal government and Franklin County. In addition, before any settlement becomes effective and the Authority is obligated to make any payments contemplated by the St. Regis MOU, federal and state legislation must be enacted which approves the settlement and extinguishes all Mohawk land claims. The Authority is in continuing settlement discussions with some of the parties to the St. Regis litigation.

### **Long Island Sound Cable Project**

In January 2014, one of the Long Island Sound Cable Project underwater cables was severely impacted by an anchor and/or anchor chain dropped by one or more vessels, causing the entire electrical circuit to fail and the circuit breaker to trip. As a result of the impact to the cable, dielectric fluid was released into Long Island Sound. At December 31, 2019 and December 31, 2018, the consolidated statements of net position includes approximately \$19 million and \$18 million, respectively, in other long-term assets, reflecting the cost of damages net of insurance recoveries. The Authority believes that it will be able to recover the full amount of its damages through legal proceedings, insurance coverage and contractual obligations.

### **Helicopter Incident near the Authority’s Transmission Lines in Beekmantown, New York**

In April 2014, Authority contracted with Northline Utilities, LLC (“Northline”) to install fiber optic ground wire along the Authority’s transmission system. Thereafter, Northline engaged Catalyst Aviation, LLC (“Catalyst”) to provide helicopter services. On October 30, 2018, a Catalyst helicopter was destroyed when it collided with a wooden utility pole and power lines near Beekmantown, New York. Members of the helicopter crew were injured, and two members of that crew died as a result of their injuries. The Authority has received two notices of claim arising out of this incident. The Authority has pursued insurance coverage under Northline’s insurance policies that name the Authority as an additional insured. The Authority tendered its defense of these notices of claim to Northline’s insurer and the insurer has accepted the Authority’s tender. The Authority believes that there exists sufficient insurance coverage to cover these claims. In any event, to the extent that the insurance coverage limitations are insufficient, Northline is responsible under the defense and indemnification provisions of its contract with the Authority.

### **Miscellaneous**

In addition to the matters described above, other actions or claims against the Authority are pending for the taking of property in connection with its projects, for negligence, for personal injury (including asbestos-related injuries), in contract, and for environmental, employment and other matters. All of such other actions or claims will, in the opinion of the Authority, be disposed of within the amounts of the Authority’s insurance coverage, where applicable, or the amount which the Authority has available therefore and without any material adverse effect on the business of the Authority.

### **Economic Outlook and View on Energy Markets**

Energy markets indicate an expectation that in 2021 prices will rebound somewhat from 2020’s mild winter and the impact of COVID-19. Achieving long term CLCPA goals will depress wholesale power prices, so upstate forward power prices are stagnant or declining from 2021 through 2023. Downstate, however, forward markets indicate that in the near-term wholesale price depression due to CLCPA is not expected to overcome the effects of awaited unit retirements (Indian Point 3, as well as New York City peakers retiring due to the DEC’s new NOx rule). Consequently, downstate power prices are foreseen as mildly rising over the next four years.

Capacity prices are expected to remain low for upstate supply, and to decline off current highs in New York City. Both cases are driven by the quadrennial Demand Curve Reset resulting in lower Reference Points, and by reductions in peak loads due in part to COVID-19 impacts.

Ancillary Services prices are expected to mildly decline over the next few years, as more flexible generation replaces Indian Point, and over the longer-term as responsive energy storage comes online. Ancillary Services could rebound beyond the next few years as intermittent renewables represent a larger share of supply.

Overall, revenues from NYISO sales are expected to remain fairly static over the next few years. As always, such a statement is subject to the usual fluctuations due to weather. An additional source of energy market uncertainty is the potential for a more robust CO<sub>2</sub> price. The Regional Greenhouse Gas Initiative (RGGI) is a mature program at this point, but efforts by the NYISO to support decarbonization by assessing a CO<sub>2</sub> charge commensurate with the social cost of carbon, or a Federal assessment at such levels, could shift wholesale power prices upwards and so represent an opportunity for renewable generators and providers of energy efficiency and energy management services.

Customer expectations are continuously evolving, as the needs for improved service levels, as well movements toward decarbonization, are growing. These increasingly complex needs are not fully met by current offerings and domestic and international entrants into the NY energy market are beginning to take share, raising the bar for all players with sophisticated customer solutions. In addition, through continuous technology improvements, renewable energy sources are becoming more cost-competitive than traditional power sources, such as hydro and gas, and disrupting wholesale markets. New technologies such as electric vehicles, storage, and hydrogen are either beginning to scale or starting to emerge and change the landscape. In parallel, players across the power value chain are embracing digitization and automation in pursuit of efficiency and growth, enabling a more decentralized, two-way power ecosystem.

Competition in the NYS ecosystem is taking shape as offshore wind solicitations are gathering momentum and downstream solar and storage are growing rapidly. The large and well-planned expansion of the transmission grid is widely recognized as a critical need and distribution utilities are taking actions to modernize their grids and provide new services, while new entrants are competing for business. With the adoption of the Climate Leadership and Community Protection Act, New York State has set one of most ambitious decarbonization agendas in the US, with significant implications for all participants in the NY energy and cross-sector ecosystems. The outcome of the US Presidential election in November could accelerate implementing national decarbonization plans.

Lastly, high uncertainty around a macroeconomic recovery from COVID-19 pandemic remains, while NYPA customers are facing new challenges and financial strains. The ways of working are being re-defined and remote working may create substantial value even after COVID-19, in areas such as access to talent and operational efficiencies.

(e) Revised Forecast of 2020 Budget

**Revised Forecast of 2020 Budget**  
(In \$ Millions)

|                                    | Original Budget<br>2020 | Forecast<br>2020 | Variance Favorable /<br>(Unfavorable)<br>2020 |
|------------------------------------|-------------------------|------------------|-----------------------------------------------|
| <b>Operating Revenues:</b>         |                         |                  |                                               |
| Customer Revenues                  | \$1,785.9               | \$1,632.2        | (\$153.7)                                     |
| NYISO Market Revenues              | 764.2                   | 636.5            | (127.7)                                       |
| Other Revenue                      | <u>30.1</u>             | <u>24.2</u>      | <u>(5.9)</u>                                  |
| <b>Total Operating Revenues</b>    | <b>2,580.2</b>          | <b>2,292.9</b>   | <b>(287.3)</b>                                |
| <b>Operating Expenses:</b>         |                         |                  |                                               |
| Purchased Power                    | 681.7                   | 531.2            | 150.5                                         |
| Fuel - Oil and Gas                 | 147.7                   | 97.0             | 50.7                                          |
| Wheeling Expenses                  | 644.1                   | 640.9            | 3.2                                           |
| O&M Expenses                       | 590.4                   | 574.7            | 15.7                                          |
| Other Expenses                     | <u>119.8</u>            | <u>130.6</u>     | <u>(10.8)</u>                                 |
| <b>Total Operating Expenses</b>    | <b>2,183.7</b>          | <b>1,974.4</b>   | <b>209.3</b>                                  |
| <b>NET OPERATING INCOME</b>        | <b>396.5</b>            | <b>318.5</b>     | <b>(78.0)</b>                                 |
| <b>Other Income:</b>               |                         |                  |                                               |
| Investment Income                  | 28.4                    | 31.1             | 2.7                                           |
| Other Income                       | <u>0.0</u>              | <u>0.0</u>       | <u>0.0</u>                                    |
| <b>Total Other Income</b>          | <b>28.4</b>             | <b>31.1</b>      | <b>2.7</b>                                    |
| <b>Non-Operating Expenses:</b>     |                         |                  |                                               |
| Depreciation and Amortization      | 262.5                   | 258.6            | 3.9                                           |
| Interest & Other Expenses          | <u>120.9</u>            | <u>117.4</u>     | <u>3.5</u>                                    |
| <b>Total Non-Operating Expense</b> | <b>383.4</b>            | <b>376.0</b>     | <b>7.4</b>                                    |
| <b>NET INCOME:</b>                 | <b>\$41.5</b>           | <b>(\$26.4)</b>  | <b>(\$67.9)</b>                               |

(f) Reconciliation of 2020 Budget and 2020 Revised Forecast

The 2020 year-end net income forecast is (\$26.4) million, which is (\$67.9) million below budget. This negative variance is primarily due to lower market prices and the resulting decrease of projected market-based power sales. It is additionally driven by higher than budgeted HTP RTEP payments, lower than budgeted Energy Efficiency revenue, and potential increase of expenses related to NYPA's response to COVID-19, offset by a realized gain on sale of securities and lower than budgeted depreciation.

(g) Statement of 2019 Financial Performance

**Net Income - Actual vs. Budgeted for the Year ended December 31, 2019**  
(In \$ Millions)

|                                     | Actual<br>2019 | Budget<br>2019 | Variance Favorable<br>/ (Unfavorable)<br>2019 |
|-------------------------------------|----------------|----------------|-----------------------------------------------|
| <b>Operating Revenues:</b>          |                |                |                                               |
| Customer Revenues                   | \$1,671.2      | \$1,825.2      | (\$154.0)                                     |
| NYISO Market Revenues               | 671.2          | 762.7          | (91.5)                                        |
| Other Revenue                       | <u>27.7</u>    | <u>20.9</u>    | <u>6.8</u>                                    |
| <b>Total Operating Revenues</b>     | <b>2,370.0</b> | <b>2,608.8</b> | <b>(238.7)</b>                                |
| <b>Operating Expenses:</b>          |                |                |                                               |
| Purchased Power                     | 528.0          | 696.9          | 168.9                                         |
| Fuel Consumed - Oil & Gas           | 139.8          | 189.2          | 49.4                                          |
| Wheeling                            | 647.0          | 644.1          | (2.9)                                         |
| Operations & Maintenance            | 601.2          | 596.3          | (5.0)                                         |
| Other Expenses                      | 118.3          | 117.2          | (1.2)                                         |
| Depreciation & Amortization         | 250.1          | 244.1          | (6.0)                                         |
| Allocation to Capital               | (18.6)         | (18.3)         | 0.3                                           |
| Asset Impairment Charge             | <u>0.0</u>     | <u>0.0</u>     | <u>0.0</u>                                    |
| <b>Total Operating Expenses</b>     | <b>2,265.9</b> | <b>2,469.4</b> | <b>203.6</b>                                  |
| <b>NET OPERATING INCOME</b>         | <b>104.2</b>   | <b>139.4</b>   | <b>(35.2)</b>                                 |
| <b>Other Income:</b>                |                |                |                                               |
| Investment Income                   | 47.4           | 30.5           | 16.9                                          |
| Other Income                        | <u>0.0</u>     | <u>0.0</u>     | <u>0.0</u>                                    |
| <b>Total Other Income</b>           | <b>47.4</b>    | <b>30.5</b>    | <b>16.9</b>                                   |
| <b>Non-Operating Expenses:</b>      |                |                |                                               |
| Contribution to New York State      | 0.0            | 0.0            | 0.0                                           |
| Interest and Other Expenses         | <u>128.6</u>   | <u>149.0</u>   | <u>20.4</u>                                   |
| <b>Total Non-Operating Expenses</b> | <b>128.6</b>   | <b>149.0</b>   | <b>20.4</b>                                   |
| <b>NET INCOME</b>                   | <b>\$23.0</b>  | <b>\$20.9</b>  | <b>\$2.1</b>                                  |

Net Income for the year ended December 31, 2019 was \$23 million, which was \$2.1 million higher than the budget of \$20.9 million. The increase in net income was primarily attributable to higher investment income due to an increase in the market value of the Authority's investment portfolio, lower interest expenses due to lower interest rate, and offset by lower operating income due to lower margins resulting from lower energy prices.

## (h) Employee Data – number of employees, full-time, FTEs and functional classification

### NYPA Headcount Projections 2021-2024

|                                  | 2021         | 2022         | 2023         | 2024         |
|----------------------------------|--------------|--------------|--------------|--------------|
| Headquarters                     | 857          | 857          | 857          | 857          |
| Power Generation                 | 974          | 974          | 974          | 974          |
| Transmission                     | 203          | 203          | 203          | 203          |
| R&D                              | 14           | 14           | 14           | 14           |
| <b>Total NYPA:</b>               | <b>2,048</b> | <b>2,048</b> | <b>2,048</b> | <b>2,048</b> |
| Canals                           | 482          | 482          | 482          | 482          |
| <b>Total NYPA &amp; CANALS*:</b> | <b>2,530</b> | <b>2,530</b> | <b>2,530</b> | <b>2,530</b> |

\* Authorized positions including vacancies.

## (i) Gap-Closing Initiatives – revenue enhancement or cost-reduction initiatives

When building a multi-year operating plan, NYPA management has developed a series of contingency plans to adapt to unforeseen changes in its financial results. The Authority is currently projecting positive net income for the 2021-2024 period, constructed upon a level of expenses outlined within this preliminary Budget and Financial Plan. Should that net income projection materially change during the forecast period, management will evaluate the situation and take appropriate actions if deemed appropriate.

The Authority has been and continues to be impacted by the ongoing COVID-19 pandemic, with effects including the shift of the majority of the employee base to a remote work configuration, a halt and subsequent restart of the planned Capital and O&M work portfolio, the temporary sequestration of operations' staff to maintain reliable electric service, and increased employee/facility health and safety measures to mitigate any potential infection – to name a few. An incremental \$28M in total costs, both Capital and O&M, is the current projected impact to NYPA for costs directly associated with these efforts in the 2020 budget year, however efforts are underway to recover a significant portion of those expenses (approximately 40%) via reimbursement through FEMA.

In addition to the direct financial costs of addressing COVID-19 outlined above, NYPA experienced additional financial impacts related to lower energy prices, which reduced our merchant revenues, and a decline in Energy Efficiency project completions, which reduced revenues for that business line. In an effort to lessen the effect of these revenues drops, NYPA undertook a comprehensive approach of reviewing and reducing operating costs throughout the Authority in order to mitigate the financial impact of the pandemic.

Moving into 2021 the risk of additional COVID-19 “waves” does exist, and could again result in similar actions taken by NYPA, however it is expected that any impact either financially or operationally should be much reduced considering the amount of planning that has been conducted in preparation for such an event. This plan does not assume another shutdown within the financial forecast.

## (j) Material Non-Recurring Resources – source and amount

Except as discussed elsewhere in this report, there are no material non-recurring resources expected in the 2021-2024 period.

## (k) Shift in Material Resources

There are no anticipated shifts in material resources from one year to another.

(I) Debt Service

**New York Power Authority Projected Debt Outstanding (FYE)**  
*(In \$ Thousands)*

|                                     | 2021               | 2022               | 2023               | 2024               |
|-------------------------------------|--------------------|--------------------|--------------------|--------------------|
| <b>Revenue Bonds</b>                | \$1,624,840        | \$1,624,840        | \$1,864,486        | \$2,061,815        |
| <b>Adjustable Rate Tender Notes</b> | -                  | -                  | -                  | -                  |
| <b>Subordinated Notes</b>           | \$41,185           | \$38,530           | \$37,635           | \$36,715           |
| <b>Commercial Paper Notes</b>       | \$505,270          | \$505,270          | \$505,270          | \$505,270          |
| <b>Grand Total:</b>                 | <b>\$2,171,296</b> | <b>\$2,168,640</b> | <b>\$2,407,391</b> | <b>\$2,603,800</b> |

**Debt Service as Percentage of Pledged Revenues (Accrual Based)**  
*(In \$ Thousands)*

|                                     | 2021            |              | 2022            |              | 2023            |              | 2024            |              |
|-------------------------------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|
|                                     | Debt Service    | % of Revenue | Debt Service    | % of Revenue | Debt Service    | % of Revenue | Debt Service    | % of Revenue |
| <b>Revenue Bonds</b>                | \$31,279        | 1%           | \$31,279        | 1%           | \$50,452        | 2%           | \$85,405        | 3%           |
| <b>Adjustable Rate Tender Notes</b> | \$0             | 0%           | \$0             | 0%           | \$0             | 0%           | \$0             | 0%           |
| <b>Subordinated Debt</b>            | \$2,421         | 0%           | \$4,200         | 0%           | \$2,370         | 0%           | \$2,371         | 0%           |
| <b>Commercial Paper Notes</b>       | \$2,935         | 0%           | \$2,935         | 0%           | \$2,935         | 0%           | \$2,935         | 0%           |
| <b>Grand Total Debt Service:</b>    | <b>\$36,636</b> | <b>1%</b>    | <b>\$38,414</b> | <b>1%</b>    | <b>\$55,757</b> | <b>2%</b>    | <b>\$90,711</b> | <b>3%</b>    |
| <b>Debt Service Coverage Ratio:</b> | <b>11.2X</b>    |              | <b>10.5X</b>    |              | <b>8.1X</b>     |              | <b>5.6X</b>     |              |

**Scheduled Debt Service Payments (Accrual Basis) Outstanding (Issued) Debt**  
*(In \$ Thousands)*

| <b>Year</b> | <b>Principal</b> | <b>Interest</b> | <b>Total</b> |
|-------------|------------------|-----------------|--------------|
| 2021        | \$855            | \$36,607        | \$37,462     |
| 2022        | \$2,655          | \$38,385        | \$41,040     |
| 2023        | \$895            | \$55,728        | \$56,623     |
| 2024        | \$16,815         | \$90,682        | \$107,497    |

**Proposed Debt**

| <b>Year</b> | <b>Principal</b> | <b>Interest</b> | <b>Total</b> |
|-------------|------------------|-----------------|--------------|
| 2021        | \$0              | \$0             | \$0          |
| 2022        | \$0              | \$0             | \$0          |
| 2023        | \$0              | \$4,530         | \$4,530      |
| 2024        | \$0              | \$8,904         | \$8,904      |

**Total Debt**

| <b>Year</b> | <b>Principal</b> | <b>Interest</b> | <b>Total</b> |
|-------------|------------------|-----------------|--------------|
| 2021        | \$855            | \$36,607        | \$37,462     |
| 2022        | \$2,655          | \$38,385        | \$41,040     |
| 2023        | \$895            | \$60,258        | \$61,153     |
| 2024        | \$16,815         | \$99,586        | \$116,401    |

**New York Power Authority Planned Use of Debt Issuances**  
(In \$ Thousands)

| TYPE                                               | Amount    | Interest Rate | Project / Description                                        |
|----------------------------------------------------|-----------|---------------|--------------------------------------------------------------|
| <b>Period January 1, 2021 - December 31, 2021:</b> |           |               |                                                              |
| Tax Exempt Commercial Paper                        | \$0       | 1%            | Energy Efficiency Program                                    |
| Taxable Commercial Paper                           | \$0       | 1%            | Energy Efficiency Program                                    |
| Tax Exempt Revenue Bonds                           | \$0       | 4%            | Transmission                                                 |
| Taxable Revenue Bonds                              | \$0       | 5%            | Robert Moses Power Plant /<br>Lewiston Pump Generating Plant |
| Total Issued 2021                                  | \$0       |               |                                                              |
| <b>Period January 1, 2022 - December 31, 2022:</b> |           |               |                                                              |
| Tax Exempt Commercial Paper                        | \$0       | 1%            | Energy Efficiency Program                                    |
| Taxable Commercial Paper                           | \$0       | 1%            | Energy Efficiency Program                                    |
| Tax Exempt Revenue Bonds                           | \$0       | 4%            | Transmission                                                 |
| Taxable Revenue Bonds                              | \$0       | 5%            | Robert Moses Power Plant /<br>Lewiston Pump Generating Plant |
| Total Issued 2022                                  | \$0       |               |                                                              |
| <b>Period January 1, 2023 - December 31, 2023:</b> |           |               |                                                              |
| Tax Exempt Commercial Paper                        | \$0       | 1%            | Energy Efficiency Program                                    |
| Taxable Commercial Paper                           | \$0       | 1%            | Energy Efficiency Program                                    |
| Tax-Exempt Revenue Bonds                           | \$206,072 | 4%            | Transmission                                                 |
| Taxable Revenue Bonds                              | \$33,575  | 5%            | Robert Moses Power Plant /<br>Lewiston Pump Generating Plant |
| Total Issued 2023                                  | \$239,646 |               |                                                              |
| <b>Period January 1, 2024 - December 31, 2024:</b> |           |               |                                                              |
| Tax Exempt Commercial Paper                        | \$0       | 1%            | Energy Efficiency Program                                    |
| Taxable Commercial Paper                           | \$0       | 1%            | Energy Efficiency Program                                    |
| Tax-Exempt Revenue Bonds                           | \$148,947 | 4%            | Transmission                                                 |
| Taxable Revenue Bonds                              | \$64,282  | 5%            | Robert Moses Power Plant /<br>Lewiston Pump Generating Plant |
| Total Issued 2024                                  | \$213,230 |               |                                                              |

*Note: The full faith and credit of the Authority are pledged for the payment of bonds and notes in accordance with their terms and provisions of their respective resolutions. The Authority has no taxing power, and its obligations are not debts of the State or any political subdivision of the State other than the Authority. The Authority's debt does not constitute a pledge of the faith and credit of the State or of any political subdivision thereof, other than the Authority.*

## Capital Commitments and Sources of Funding

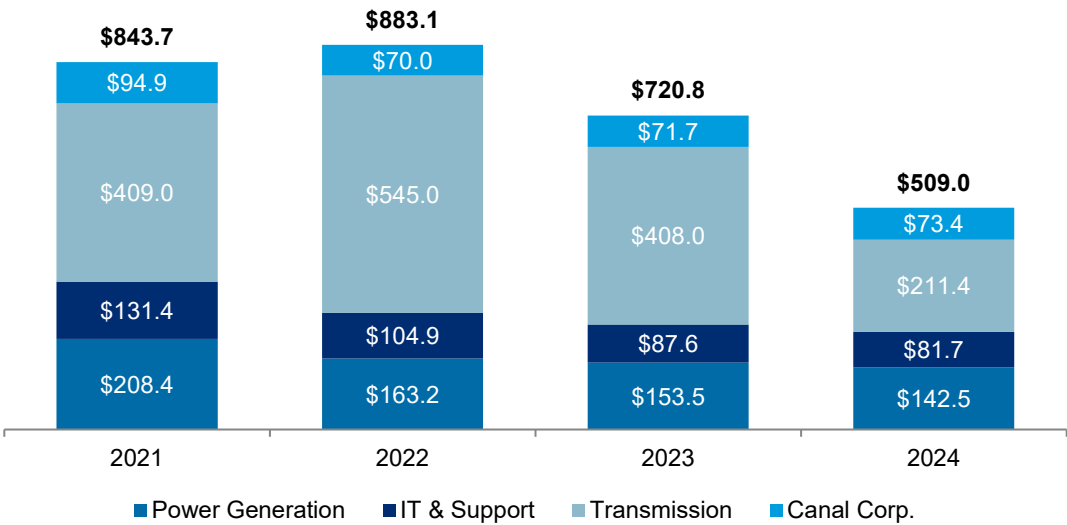
The Authority's commitments for various capital improvements are approximately \$4.2 billion over the financial period 2021-2024. The Authority anticipates that these improvements will be funded using existing construction funds, internally generated funds and additional borrowings. Such additional borrowings are expected to be accomplished through the issuance of additional commercial paper notes and/or the issuance of long-term fixed rate debt. Projected capital commitments during this period include those listed in the table below.

### 2021-2024 Capital Commitments by Function (In \$ Millions)

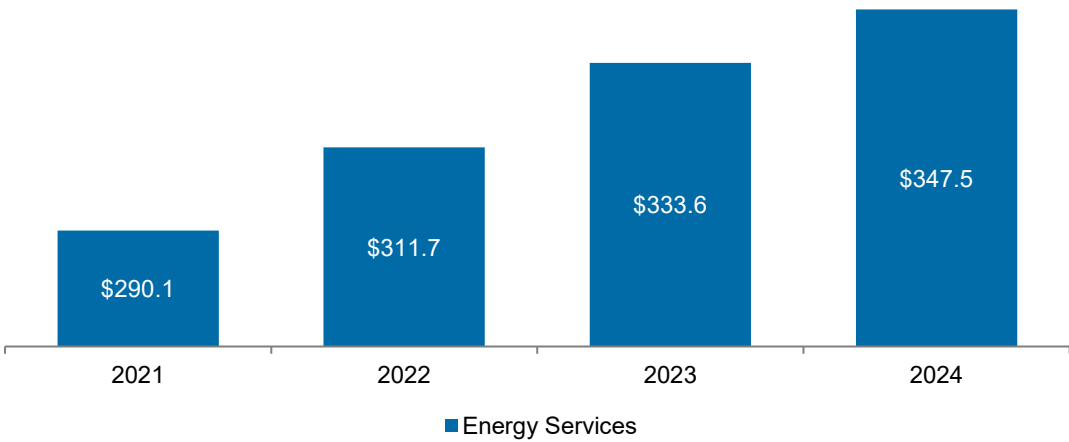
|                                               | 2021           | 2022           | 2023           | 2024           |
|-----------------------------------------------|----------------|----------------|----------------|----------------|
| Northern New York Transmission                | \$7.0          | \$175.0        | \$226.1        | \$133.1        |
| Moses Adirondack Upgrade (Smartpath)          | \$113.6        | \$121.1        | \$53.6         | \$0.0          |
| Marcy-Scott Yard Upgrade (AC Project)         | \$95.1         | \$113.4        | \$47.8         | \$0.0          |
| Communications Backbone                       | \$53.2         | \$26.5         | \$21.6         | \$0.3          |
| Robert Moses LEM (NextGen Niagara)            | \$44.3         | \$36.3         | \$51.7         | \$54.8         |
| Sensor Deployment                             | \$19.4         | \$0.0          | \$0.0          | \$0.0          |
| Transmission Life Extension & Modernization   | \$73.6         | \$48.4         | \$43.9         | \$25.6         |
| Canals                                        | \$94.9         | \$70.0         | \$71.7         | \$73.4         |
| Reimagine Canals                              | \$25.2         | \$64.8         | \$70.2         | \$7.9          |
| Digital, Network & Cyber                      | \$59.4         | \$28.7         | \$19.6         | \$18.8         |
| Other NYPA Capital                            | \$258.1        | \$199.0        | \$114.6        | \$195.2        |
| <b>Total NYPA &amp; Canals Funded:</b>        | <b>\$843.7</b> | <b>\$883.1</b> | <b>\$720.8</b> | <b>\$509.0</b> |
| <b>Energy Services - Separately Financed:</b> | <b>\$290.1</b> | <b>\$311.7</b> | <b>\$333.6</b> | <b>\$347.5</b> |



2021-2024 Capital Commitments by Function  
(In \$ Millions)



2021-2024 Capital Commitments by Function  
(In \$ Millions)



## (m) Credit Discussion

Maintaining a strong relationship with the capital markets is critical to how NYPA operates. Fitch Ratings and S&P Global Ratings currently assign a AA rating to the Authority's long-term bonds, while Moody's Investor Services currently assign a Aa2 rating to the Authority's long-term bonds, which is among the highest rating give to public electric utilities. This allows us to borrow money for capital projects at competitive rates, and to continue to offer low-cost financing to qualified customers to help fund impactful energy initiatives.

The Authority's long-term bonds are issued pursuant the "General Resolution Authorizing Revenue Obligations" (as amended and supplemented up to the present time, the Bond Resolution). The Bond Resolution covers all of the Authority's projects, which it defines as any project, facility, system, equipment or material related to or necessary or desirable in connection with the generation, production, transportation, transmission, distribution, delivery, storage, conservation, purchase or use of energy or fuel, whether owned jointly or singly by the Authority, including any output in which the Authority has an interest authorized by the Act or by other applicable State statutory provisions, provided, however, that the term "Project" shall not include any Separately Financed Project as that term is defined in the Bond Resolution. The Authority has covenanted with bondholders under the Bond Resolution that at all times the Authority shall maintain rates, fees or charges, and any contracts entered into by the Authority for the sale, transmission, or distribution of power shall contain rates, fees or charges sufficient together with other monies available therefor (including the anticipated receipt of proceeds of sale of Obligations, as defined in the Bond Resolution, issued under the Bond Resolution or other bonds, notes or other obligations or evidences of indebtedness of the Authority that will be used to pay the principal of Obligations issued under the Bond Resolution in anticipation of such receipt, but not including any anticipated or actual proceeds from the sale of any Project), to meet the financial requirements of the Bond Resolution. Revenues of the Authority (excluding revenues attributable directly or indirectly to the ownership or operation for Separately Financed Projects and after deductions for operating expenses and reserves, including reserves for working capital, operating expenses or compliance purposes) are applied first to the payment of, or accumulation as a reserve for payment of, interest on and the principal or redemption price of Obligations issued under the Bond Resolution and the payment of Parity Debt issued under the Bond Resolution.

The Bond Resolution also provides for withdrawal for any lawful corporate purpose as determined by the Authority, including but not limited to the retirement of Obligations issued under the Bond Resolution, from amounts in the Operating Fund in excess of the operating expenses, debt service on Obligations and Parity Debt issued under the Bond Resolution, and subordinated debt service requirements.

In order to support our Aa2/AA/AA bond ratings and all of the advantages it offers the Authority and its customers, NYPA sets certain internal targets which are consistent with other peer rated organizations. In May 2011, the Authority's Trustees adopted a policy statement (Policy Statement) which relates to, among other things, voluntary contributions, transfers, or other payments to the State by the Authority after that date. The Policy Statement provides, among other things, that in deciding whether to make such contributions, transfers, or payments, the Authority shall use as a reference point the maintenance of a debt service coverage ratio of at least 2.0 (this reference point should not be interpreted as a covenant to maintain any particular coverage ratio), in addition to making the other determinations required by the Bond Resolution. The Policy Statement may at any time be modified or eliminated at the discretion of the Authority's Trustees.

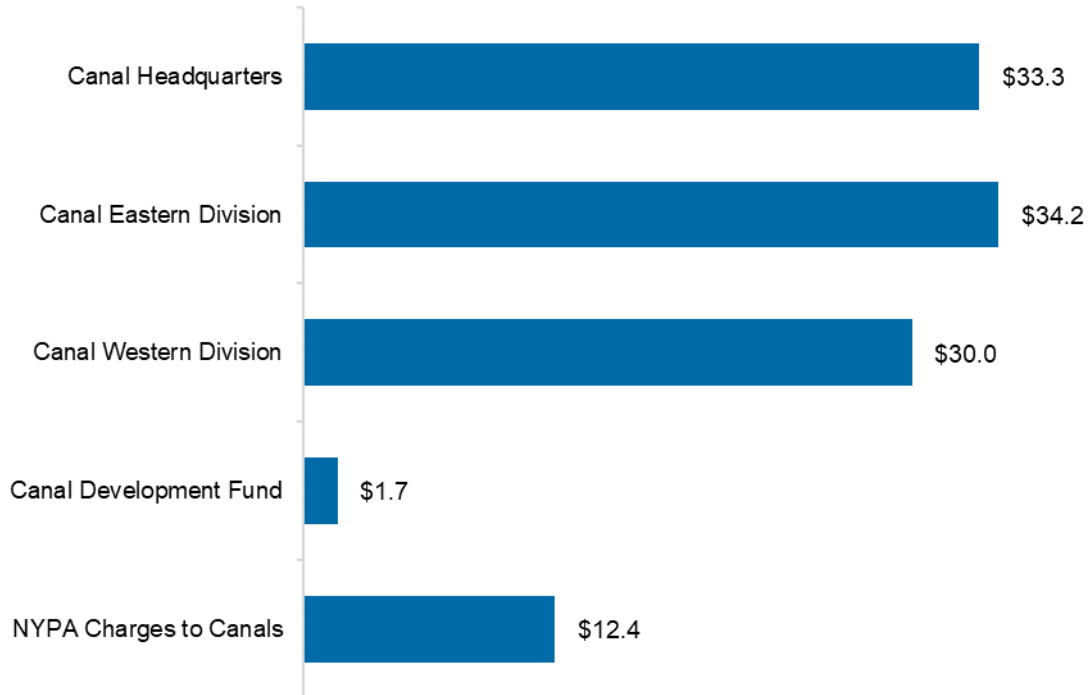


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White Plains, NY 10601-3170  
[www.nypa.gov](http://www.nypa.gov)

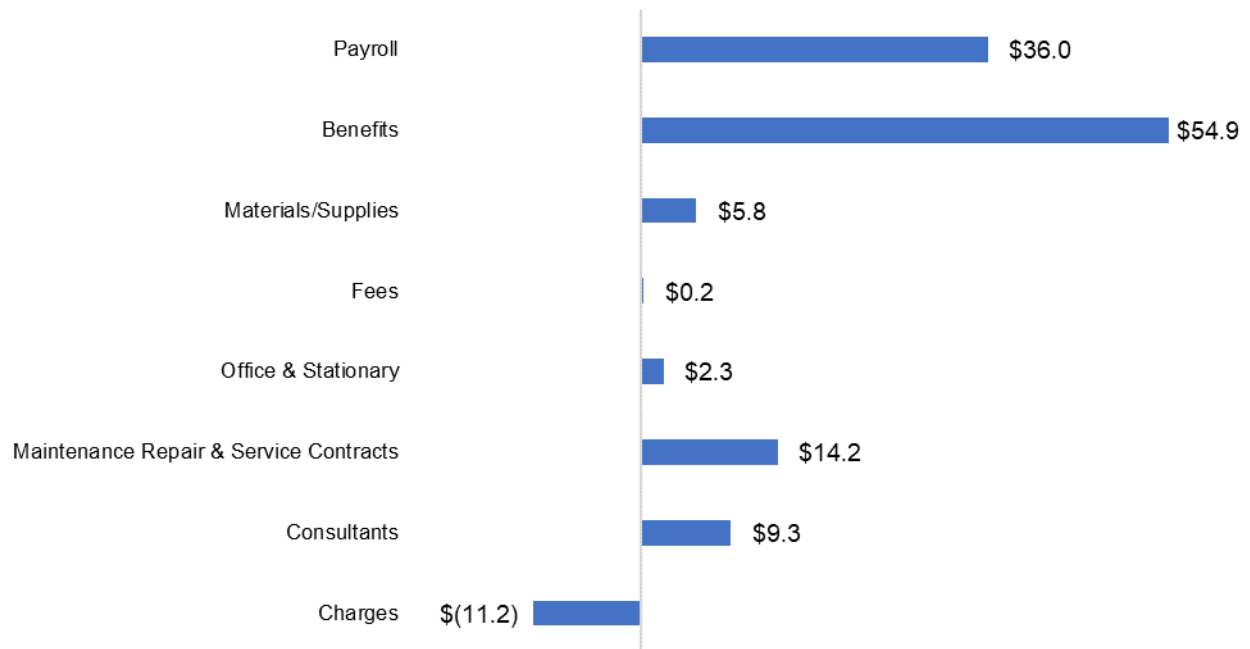


**Exhibit 4c ii-A**

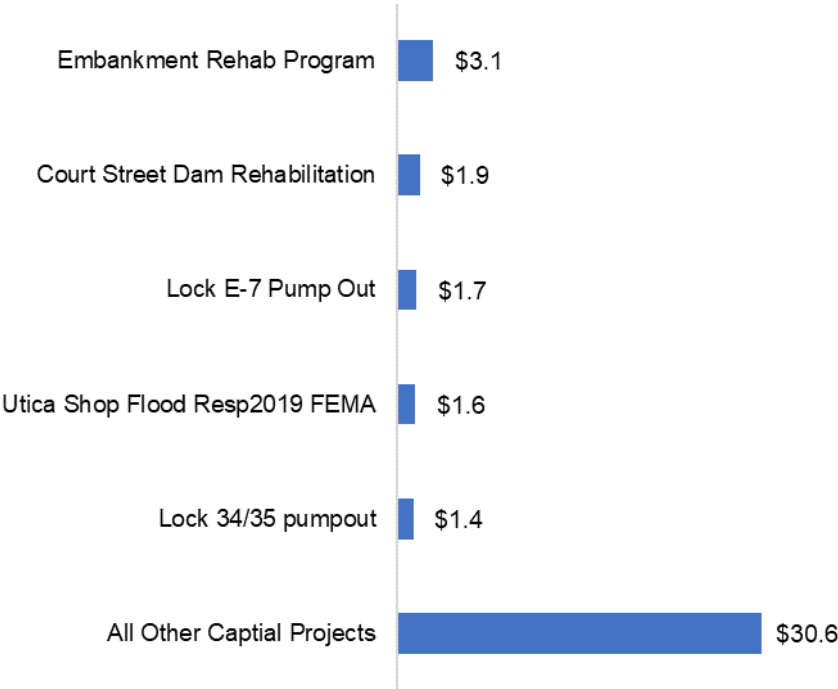
|                                | 2020 Adopted Budget | 2021 Requested Budget | Inc/(Dec) Change (\$) | Inc/(Dec) Change (%) |
|--------------------------------|---------------------|-----------------------|-----------------------|----------------------|
| Canal HQ                       | \$ 22.6             | \$ 33.3               | \$ 10.7               | 47.3%                |
| Canal East                     | \$ 28.7             | \$ 34.2               | \$ 5.5                | 19.0%                |
| Canal West                     | \$ 27.7             | \$ 30.0               | \$ 2.3                | 8.3%                 |
| Canal CDF                      | \$ 2.5              | \$ 1.7                | \$ (0.8)              | -31.2%               |
| NYPA Direct Charges to Canals  | \$ 5.4              | \$ 6.4                | \$ 1.0                | 18.8%                |
| NYPA Direct Assess to Canals   | \$ 6.7              | \$ 6.0                | \$ (0.7)              | -10.2%               |
| <b>Total Canal Corporation</b> | <b>\$ 93.6</b>      | <b>\$ 111.6</b>       | <b>\$ 18.0</b>        | <b>19.2%</b>         |

**Canal Corporation - \$111.6M**

## Canal Corporation O&M by Cost Element Grouping - \$111.6M



**Canals Capital Projects: \$40.3M**





**NY Power  
Authority**

**Canal  
Corporation**

# **Risk Management Update**

**Soubhagya Parija**

**SVP & Chief Risk Officer**

**Tom Spencer**

**Senior Director – Risk Management**

**November 17, 2020**

# Board Reporting of KRIs

## Previous Reporting

October 6, 2020 21

### Key Risk Indicator Dashboard

| Top Risks                            | Key Risk Indicators – March 2019                                                          | Current | Prior |
|--------------------------------------|-------------------------------------------------------------------------------------------|---------|-------|
| Sustained Low Power Prices           | • Balance of 2019 Zone A Historical Forward Prices vs. Budget (Yearly Roll Over)          |         |       |
|                                      | • Calendar 2020 Zone A Historical Forward Pricing vs. Est. Budget (Yearly Roll Over)      |         |       |
|                                      | • Balance of 2019 ROS Capacity Historical Forward Prices vs. Budget (Yearly Roll Over)    |         |       |
|                                      | • Calendar 2020 ROS Capacity Historical Forward Prices vs. Est. Budget (Yearly Roll Over) |         |       |
| Hydro Flow Volumes                   | • Current Monthly Forecast vs. Previous Month and Budget                                  |         |       |
| Commodity Market Volatility          | • Percentage Hedged                                                                       |         |       |
| Attract & Retain Qualified Workforce | • Salaried Voluntary Turnovers vs. Vacancy Rate                                           |         |       |
|                                      | • Retirement Eligible 2017 – 2020                                                         |         |       |
| Workforce Health and Safety          | • DART Rate                                                                               |         |       |
|                                      | • Near Miss Reporting                                                                     |         |       |
| Cyber Security                       | • Vulnerabilities Open, Events Dispatched and Remediated and Phishing Click Rate          |         |       |
|                                      | • People, Process and Technology Metrics                                                  |         |       |
| Catastrophic Events                  | • Drills and Exercises                                                                    |         |       |
| Regulatory/Legislative Environment   | • Matters Before FERC ("Federal Energy Regulatory Commission")                            |         |       |

Unfavorable Stable Favorable

NEW YORK STATE OF OPPORTUNITY NY Power Authority Canal Corporation

- Enhanced KRIs
  - Quantitative thresholds
- More dynamic
- Better insight and increased reporting and/or commentary
- 13 Top Enterprise KRIs evolved from ~100 previously identified KRIs
  - Financial
  - Operational
  - Human Resources
  - Cyber Security
  - Merchant Portfolio

## New Reporting

32

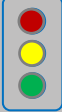
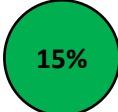
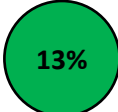
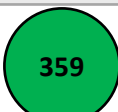
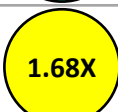
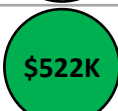
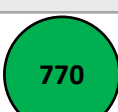
### Key Risk Indicators

| Key Risk Indicator                                                      | Current Metric | Threshold                                      | Comments/Action Steps                                                                                                                                                                                                      |
|-------------------------------------------------------------------------|----------------|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Top 10 NYPA Major Capital Projects EOY Projected Spend Variance to Plan | -10%           | ≤ 15% (+/-)<br>16% to 25% (+/-)<br>> 25% (+/-) | Delays in project spends resulting from project pause due to Covid-19. For this year only, project costs are based on the "Revised" COVID impacted budgets as the baseline and not the original beginning of year budgets. |
| Energy Efficiency Projects EOY Projected Spend Variance to Plan         | -11%           | ≤ 15% (+/-)<br>16% to 25% (+/-)<br>> 25% (+/-) | Delays in project spends resulting from project pause due to Covid-19. For this year only, project costs are based on the "Revised" COVID impacted budgets as the baseline and not the original beginning of year budgets. |
| Canal Major Capital Projects EOY Projected Spend Variance to Plan       | -18%           | ≤ 15% (+/-)<br>16% to 25% (+/-)<br>> 25% (+/-) | Delays in project spends resulting from project pause due to Covid-19. For this year only, project costs are based on the "Revised" COVID impacted budgets as the baseline and not the original beginning of year budgets. |
| Average Days to Fill Vacancies (from requisition approval to offer)     | 105            | ≤ 90 days<br>91 to 120 days<br>> 120 days      | Due to COVID 19 temporary closure of State office functions, days to fill vacancies has increased, specifically delays in background check processing.                                                                     |
| Voluntary Attrition %                                                   | 3.7%           | ≤ 10%<br>11% to 16%<br>> 16%                   | Includes retirement or other voluntary turnover.                                                                                                                                                                           |
| BitSight Overall Cyber Security Rating                                  | 770            | 740-900<br>641-739<br>250-640                  | Independent evaluation of NYPA's cybersecurity performance. Ratings are based on four main risk vectors; compromised systems, diligence, user behavior, and public disclosures.                                            |
| Aging Receivables – Amount Greater Than 90 Days Past Due                | \$258K         | ≤ \$5M<br>\$6M to \$10M<br>> \$10M             | Excludes Economic Development Customer Assistance Program (EDCAP) customers until forbearance period expires.                                                                                                              |

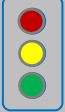
On track At risk Off track

NEW YORK STATE OF OPPORTUNITY NY Power Authority Canal Corporation

# Key Risk Indicators

|  Key Risk Indicator |  Current Metric |  Threshold                                                                                                                                                                                                         |  Comments/Action Steps                                                                                                                                   |
|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Project Execution</b>                                                                             |                                                                                                  |                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                             |
| Top 10 NYPA Major Capital Projects EOY Projected Spend Variance to Plan                              |  15%            |  ≤ 15% (+/-)<br> 16% to 25% (+/-)<br> > 25 % (+/-) | For this year only, project costs are based on the “Revised” COVID impacted budgets as the baseline and not the original beginning of year budgets. Impact due to Covid on several projects was less than originally anticipated.           |
| Energy Efficiency Projects EOY Projected Spend Variance to Plan %                                    |  -16%           |  ≤ 15% (+/-)<br> 16% to 25% (+/-)<br> > 25 % (+/-) | Delays in project spends resulting from project pause due to Covid-19.<br>For this year only, project costs are based on the “Revised” COVID impacted budgets as the baseline and not the original beginning of year budgets.               |
| Canal Major Capital Projects EOY Projected Spend Variance to Plan                                    |  13%            |  ≤ 15% (+/-)<br> 16% to 25% (+/-)<br> > 25 % (+/-) | For this year only, project costs are based on the “Revised” COVID impacted budgets as the baseline and not the original beginning of year budgets. Impact due to Covid on several projects was less than originally anticipated.           |
| <b>Financial</b>                                                                                     |                                                                                                  |                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                             |
| Liquidity Headroom (includes days cash on hand plus available Credit Lines)                          |  359            |  ≥ 150 days<br> 100 to 149 days<br> < 100 days     |                                                                                                                                                                                                                                             |
| Fixed-Charge Coverage Ratio (FCCR)                                                                   |  1.68X         |  ≥ 1.9x<br> 1.5x to 1.89x<br> < 1.5x              | Forecast as of 7+5. Below target due to lower market prices and the resulting decrease of projected market-based power sales, lower than budgeted Energy Efficiency revenue and projected increased expenses related the COVID-19 response. |
| Aging Receivables – Amount Greater Than 90 Days Past Due                                             |  \$522K       |  ≤ \$5M<br> \$6M to \$10M<br> > \$10M        | Excludes Economic Development Customer Assistance Program (EDCAP) customers until forbearance period expires.                                                                                                                               |
| <b>Cyber Security</b>                                                                                |                                                                                                  |                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                             |
| BitSight Overall Cyber Security Performance Rating                                                   |  770          |  740-900<br> 641-739<br> 250-640             | Independent evaluation of NYPA’s cybersecurity performance. Ratings are based on four main risk vectors; compromised systems, diligence, user behavior, and public disclosures.                                                             |

# Key Risk Indicators

|  Key Risk Indicator |  Current Metric |  Threshold               |  Comments/Action Steps                                                                                                       |
|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Human Resources</b>                                                                               |                                                                                                  |                                                                                                             |                                                                                                                                                                                                                 |
| Average Days to Fill Vacancies (from requisition approval to offer)                                  | 101                                                                                              | <div> <div></div> <div></div> <div></div> </div> <= 90 days<br>91 to 120 days<br>> 120 days                 | Due to COVID 19 temporary closure of State office functions, days to fill vacancies has increased, specifically delays in background check processing. The average declined four days from August to September. |
| Voluntary Attrition %                                                                                | 4.3%                                                                                             | <div> <div></div> <div></div> <div></div> </div> <= 10%<br>11% to 16%<br>> 16%                              | Includes retirement or other voluntary turnover.                                                                                                                                                                |
| <b>Merchant Portfolio</b>                                                                            |                                                                                                  |                                                                                                             |                                                                                                                                                                                                                 |
| Prompt Year Hedge Target (Energy)                                                                    | 68%                                                                                              | <div> <div></div> <div></div> <div></div> </div> >= 67%<br>57% to 66%<br>< 57%                              |                                                                                                                                                                                                                 |
| Prompt Year Hedge Target (Capacity)                                                                  | 36%                                                                                              | <div> <div></div> <div></div> <div></div> </div> >= 36%<br>26% to 35%<br>< 26%                              |                                                                                                                                                                                                                 |
| Balance of the Year Commodity Prices (Zone A: \$/MWh)                                                | 92%                                                                                              | <div> <div></div> <div></div> <div></div> </div> > 90% of budget<br>70% to 90% of budget<br>< 70% of budget |                                                                                                                                                                                                                 |
| Balance of the Year Forecasted Gross Generation From Hydro Flows (NIA and STL)                       | 104%                                                                                             | <div> <div></div> <div></div> <div></div> </div> > 90% of budget<br>70% to 90% of budget<br>< 70% of budget |                                                                                                                                                                                                                 |
| Balance of the Year Downside Risk for Merchant Portfolio                                             | @ Risk (P5):<br>P50 (exp. 2020 Total):                                                           | \$6M<br>\$291M                                                                                              | The Merchant Revenue represents 25-30% of Total Revenue                                                                                                                                                         |

# Key Risk Management Initiatives

## Enterprise Risk Management

- EGRC Implementation
  - 120+ people trained
  - 80% of Business Units
- Annual Risk Assessment
  - Key Risk Indicator Update
  - Risk Rating Matrix Review
- Strategy Review
- Multiple Project Risk Assessments
  - COVID-19, Canal Staycations, Reimagine Canals, Return to Work, North Country Energy Storage

## Operations & Commodities Risk

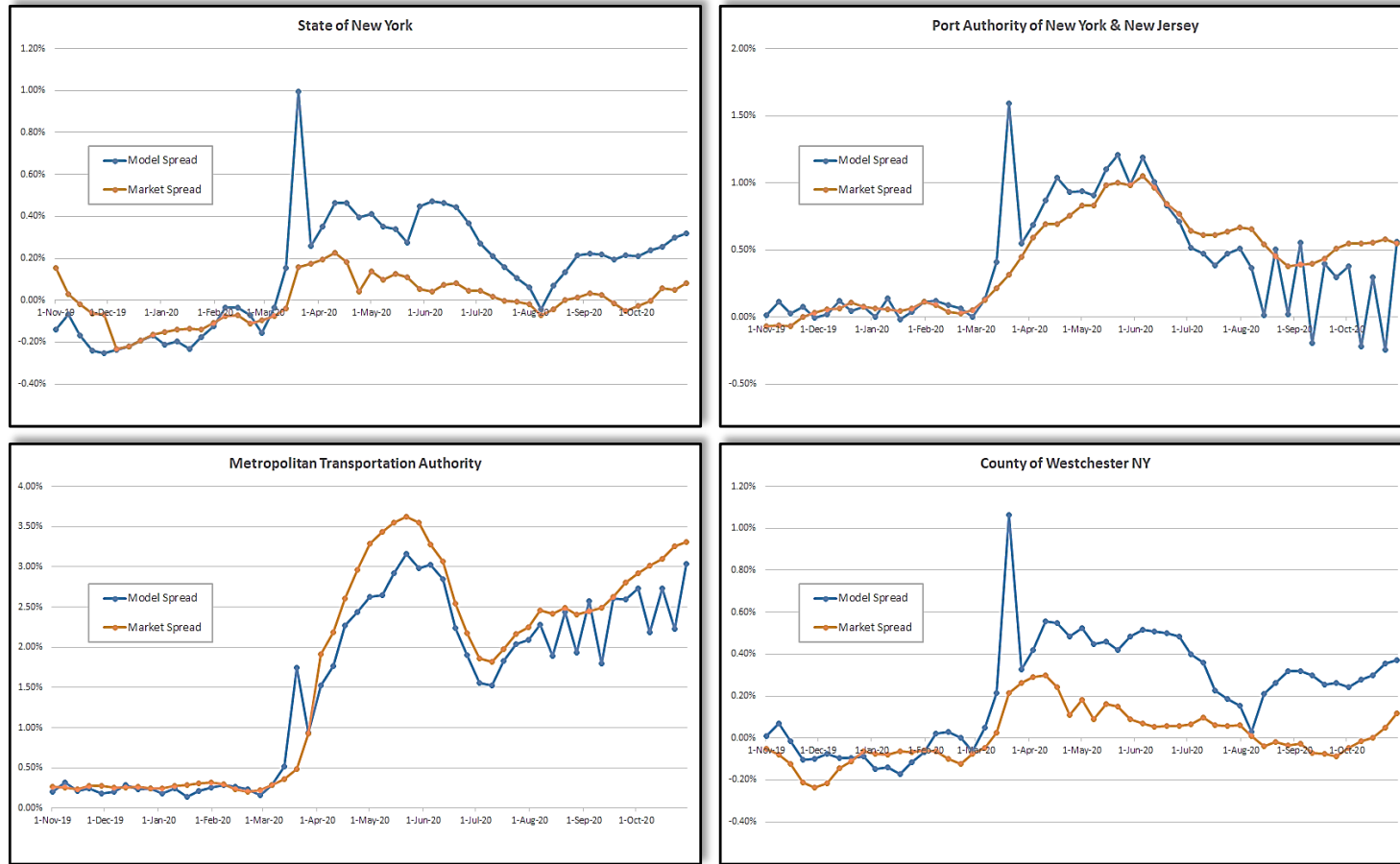
- Hedge Strategy Governance
  - Energy & Non-Energy Commodity Programs
  - Enhanced Analytics – Energy Commodity Risk Management Software Phase II
- Business Development
  - New Customer Product Offerings
  - Large Scale Renewables Project Review
- Project Risk
  - Energy Efficiency
  - Support ISO 55500 Initiative
- Model Risk Governance

## Insurance & Credit Risk

- Annual Insurance Portfolio Risk Review
- Annual Insurance Renewals
- Owner Controlled Insurance Program (OCIP)
  - Support Diversity and Inclusiveness Goals
- Enterprise-Wide Credit Program
  - Counterparty Credit Monitoring

# Credit Monitoring

## Credit Spread Examples



- Monitoring Multiple Counterparties including:
  - 218 Governmental & Municipal (Energy Efficiency)
  - 35 Corporates (Trading counterparties)
- Monitored Metrics:
  - Credit ratings - S&P and Moody's
  - Credit spreads - Modeled and Market
  - Automated alerts
  - Bloomberg analytics



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**January 19, 2021**

**Next Meeting**

The next regular meeting of the Joint Finance & Risk Committee is scheduled to be held on Thursday, March 18, 2021 via videoconference at a time to be determined.