



**NY Power
Authority**

**Canal
Corporation**

**MINUTES OF THE REGULAR JOINT MEETING
OF THE
POWER AUTHORITY OF THE STATE OF NEW YORK AND
NEW YORK STATE CANAL CORPORATION**

December 11, 2019

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Minutes of the Regular Joint Meeting of the New York Power Authority's Trustees and Canal Corporation's Board of Directors at the Clarence D. Rappleyea Building, 123 Main Street, White Plains, New York at approximately 9:16 a.m.

Members of the Board present were:

John R. Koelmel, Chairman
Eugene L. Nicandri, Vice Chairman
Tracy McKibben
Michael Balboni
Dennis Trainor

Anthony Picente, Jr. – Excused

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 Operating Officer
Sarah Salati	Executive Vice President and Chief Commercial Officer
Soubhagya Parija	Senior Vice President and Chief Risk Officer
Robert Piascik	Senior Vice President and Chief Information Officer
Lee Garza	Senior Vice President – Financial Operations
Angela Gonzalez	Senior Vice President – Internal Audit
Keith Hayes	Senior Vice President – Clean Energy Solutions
Yves Noel	Senior Vice President – Strategy & Corporate Development
Kristine Pizzo	Senior Vice President – Human Resources
Karen Delince	Vice President and Corporate Secretary
Daniella Piper	Vice President – Digital Transformation Office and Chief of Staff
Kenneth Carnes	Vice President – Critical Secure Services & CISO
Patricia Lombardi	Vice President – Project Management
Ethan Riegelhaupt	Vice President – Corporate Communications
Thakur Sundeep	Controller
Ana Stachowiak	Senior Program Director
Diane Gil	Senior Director – Procurement Governance & Analytics COE
Susan Craig	Director – Media Relations
Emily Alkiewicz	Manager – Business Power Allocations & Compliance
Mary Cahill	Manager – Executive Office
James Reynolds	Manager – Governance
Lorna Johnson	Senior Associate Corporate Secretary
Sheila Quatrocci	Associate Corporate Secretary
Michele Stockwell	Project Coordinator – Executive Office
Lori DeMichele	Board Travel Specialist

Chairman Koelmel presided over the meeting. Corporate Secretary Delince kept the Minutes.

Introduction

Chairman Koelmel welcomed the Trustees/Directors and NYPA and Canal staff members who were present at the meeting. He said that the meeting had been duly noticed as required by the Open Meetings Law and called the meeting to order pursuant to the Authority's Bylaws, Article III, Section 3.

1. **Adoption of the December 11, 2019 Proposed Meeting Agenda**

On motion made by member Michael Balboni and seconded by member Tracy McKibben, the members adopted the meeting Agenda.

Conflicts of Interest

Members Tracy McKibben, Michael Balboni and Dennis Trainor declared no conflicts of interest based on the list of entities previously provided for the members' review.

Chairman Koelmel declared a conflict of interest as it relates to Buffalo Arts and Technology Center (item #5c i-4).

Vice Chair Nicandri declared a conflict of interest as it relates to Seaway Private Equity Corporation (item #4e i).

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

“Mr. Chairman, I move that the NYPA and Canal Boards conduct an Executive Session to discuss the financial and credit history of a particular corporation and the employment of a particular person or corporation.” On motion made by member Dennis Trainor and seconded by member Tracy McKibben, the members held an executive session.

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

“Mr. Chairman, I move to resume the meeting in Open Session.” On motion made by Vice Chair Nicandri and seconded by member Tracy McKibben, the meeting resumed in Open Session.

Chairman Koelmel said that no votes were taken during the Executive Session.

4. CONSENT AGENDA:

On motion made by member Michael Balboni and seconded by member Dennis Trainor, the members approved the Consent Agenda.

a. Governance Matters:

i. **Approval of the Minutes**

The Minutes of the Regular Joint Meeting of the New York Power Authority's Trustees and Canal Corporation's Board of Directors held on September 25, 2019 were unanimously adopted.

ii. **Proposed 2020 Schedule of Meetings**

The Vice President and Corporate Secretary submitted the following report:

"SUMMARY"

The following schedule of meetings for the year 2020 is recommended:

Date	Boards/Committees	Venue
January 29 (Wednesday) at 8:30	Cyber Committee	WPO
	NYPA/Canal Board	WPO
February 12 (Wednesday) at 9:30	Finance Committee	Video
March 26 (Thursday) at 9:30	Audit Committee	Video
March 31 (Tuesday) starting at 8:30	Governance Committee	WPO
	NYPA/Canal Board	WPO
May 14 (Thursday) at 9:30	Finance Committee	Video
May 19 (Tuesday) at 8:30	NYPA/Canal Board	WPO
July 16 (Thursday) at 8:30	Audit Committee	Video
	Finance Committee	Video
July 28 (Tuesday) at 8:30	Cyber Committee	WPO
	NYPA/Canal Board	WPO
September 23 (Wednesday) at 8:30	Governance Committee	WPO
	NYPA/Canal Board	WPO
November 17 (Tuesday) at 9:30	Finance Committee	Video
December 8 (Tuesday) at 12:00	Trustee Training	WPO
December 9 (Wednesday) at 8:30	Audit Committee	WPO
	NYPA/Canal Board	WPO

RECOMMENDATION

The President and Chief Executive Officer and I support the proposed 2020 meeting schedule as set forth in the foregoing report.

I recommend the approval of the proposed schedule by adoption of the resolution below.

RESOLVED, That the 2020 meeting schedule, as set forth in the foregoing report of the Vice President and Corporate Secretary, be, and hereby is, approved.

b. Power Allocations:

i. Transfer of Recharge New York Power Allocations

The President and Chief Executive Officer submitted the following report:

"SUMMARY"

The Trustees are requested to approve the transfer of the following New York Power Authority ('Authority') power allocations:

1. Transfer of a 136-kilowatt ('kW') Recharge New York ('RNY') Power allocation awarded to Comtech Telecommunications Corp. ('Comtech') for use at 105 Baylis Road, Melville, New York, to Comtech PST Corp. ('Comtech PST') in order to address organizational changes.
2. Transfer of a 196 kW RNY Power allocation awarded to Silicon Carbide Products, Inc. for use at its facilities located at 361 Daniel Zenker Drive, Horseheads, New York to Silicon Carbide Products, Inc. ('SCP') in order to address organization changes.

The Trustees have previously approved transfers of Authority power allocations in similar circumstances.

Transfers of RNY Power are subject to approval of the Economic Development Power Allocation Board ('EDPAB'). At its December 9, 2019 meeting, EDPAB approved the transfer of the RNY Power allocations described above.

DISCUSSION

The following discussion describes the facts relating to the recommended transfers:

1) Comtech Telecommunications Corp.

Comtech designs, develops, and produces cutting edge advanced communications products and systems for a world-wide customer base that includes commercial entities, governmental entities and the military. The company presently has a pending 136 kW RNY Power allocation. When applying for the allocation, the company listed two separate facilities, including a manufacturing facility located at 105 Baylis Road, Melville, New York ('Baylis Road Facility'), as facilities that potentially would use the allocation.

As it turns out, the allocation is tied to jobs at the Baylis Road Facility, and that facility is operated by Comtech's wholly-owned subsidiary, Comtech PST. Therefore, both Comtech and Comtech PST request that the pending 136 kW RNY Power allocation be transferred to Comtech PST for use at the Baylis Road Facility. Comtech PST will honor all commitments including employment, power utilization, and capital investment commitments related to the 136 kW RNY Power allocation.

2) Silicon Carbide Products, Inc.

Silicon Carbide Products, Inc. has a 196 kW RNY Power allocation for use at its facilities in Horseheads, New York. The company manufactures custom silicon carbide ceramic wear and corrosion components for pollution control and other components that improve equipment life. Management bought the company as SCP Acquisition Company, Inc., and then changed the name of the company to SCP.

Both companies request that the 196 kW RNY Power allocation be transferred to SCP (the successor entity). The change in ownership will not result in changes to operations at the facility and SCP has indicated that it will honor all terms and commitments, including employment, power utilization,

and capital investment commitments made by Silicon Carbide Products, Inc. under its RNY Power sales agreement with the Authority.

RECOMMENDATION

The Senior Vice President - Clean Energy Solutions recommends that the Trustees approve the transfers discussed above, subject to: (1) assumption of existing supplemental commitments by the proposed transferees as described above; and (2) the transfers are addressed in contract documents containing such terms and conditions determined by the Authority to be appropriate to effectuate each transfer.

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

The following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That the transfer of the 136 kilowatt (“kW”) Recharge New York (“RNY”) Power allocation awarded to Comtech Telecommunications Corp., for use at its facility at 105 Baylis Road, Melville, New York, to Comtech PST Corp. for use at the same facility, as described in the foregoing report of the President and Chief Executive Officer (“report”) be, and hereby is, approved subject to (i) such terms and conditions as are set forth in the foregoing report, and (ii) such terms and conditions as are required by the Authority in contract documents prepared by the Authority in order to effectuate the transfer; and be it further

RESOLVED, That the transfer of the 196 kW RNY Power allocation awarded to Silicon Carbide Products, Inc. for use at its facility at 361 Daniel Zenker Drive, Horseheads, New York, to a different business entity operating the facility under an identical name as the previous owner, Silicon Carbide Products, Inc., for use at the same facility, as described in the foregoing report be, and hereby is, approved subject to (i) such terms and conditions as are set forth in the foregoing report, and (ii) such terms and conditions as are contained in contract documents prepared by the Authority to effectuate the transfer; 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, 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.

ii. **Contract for the Sale of Replacement Power –
Transmittal to the Governor**

The President and Chief Executive Officer submitted the following report:

"SUMMARY"

The Trustees are requested to:

- 1) Approve the proposed final contract ('Contract') for the sale of 10,000 kilowatts ('kW') of Replacement Power ('RP') to Somerset Operating Company, LLC ('SOC' or 'Company') in accordance with Public Authorities Law ('PAL') §1009.
- 2) Authorize transmittal of the Contract to the Governor for his review and requested authorization for the Authority to execute the Contract pursuant to PAL §1009.

A summary of the underlying project and the RP allocation is attached as Exhibit '4b ii-A.' Copies of the Contract and the applicable Authority service tariff, Service Tariff No. WNY-2 ('ST WNY-2') are attached as Exhibit '4b ii-B.'

BACKGROUND

Under PAL §1005(13), the Authority may allocate and sell directly or by sale for resale, 250 megawatts ('MW') of Expansion Power ('EP') and 445 MW of RP (collectively, 'WNY Hydropower') to businesses located within 30 miles of the Niagara Power Project, provided that the amount of EP allocated to businesses in Chautauqua County on January 1, 1987 shall continue to be allocated in such county.

As required by PAL §1009, when the Authority has reached agreement with its co-party on a power sale contract, it is required to transmit the proposed contract to the Governor and other elected officials and hold a public hearing on the proposed contract. At least 30-days' notice of the hearing must be given by publication once in each week during such period in each of six selected newspapers. Following the public hearing, the contract may be modified, if advisable.

Upon approval of the final proposed contract by the Authority, the Authority 'reports' the proposed contract, along with its recommendations and the public hearing record, to the Governor and other elected officials. Upon authorization of the Governor, the Authority may execute the contract.

DISCUSSION

At their meeting on July 30, 2019, the Trustees awarded a 10,000 kW RP allocation to SOC, as described in Exhibit '4b ii-A.' At this meeting, the Trustees also authorized a public hearing on the proposed Contract for the sale of this allocation pursuant to PAL §1009.

In summary:

- The term of the RP allocation is ten (10) years from commencement of electric service.
- Transmission and delivery service would be provided by the Company's local utility in accordance with the utility's Public Service Commission-approved delivery service tariff.
- The Contract would provide for the direct billing of all production charges (*i.e.* demand and energy) as well as all New York Independent System Operator, Inc. charges, plus taxes or any other required assessments, as set forth in ST WNY-2, previously approved by the Trustees.

- The Contract provides for the sale of additional allocations of WNY Hydropower to the Company in appropriate circumstances by incorporating new allocations into Schedule A of the Contract. The Trustees approved this convention in the 2010 long-term extension contract for hydropower, which simplifies contract administration.
- The Contract includes commercially reasonable provisions concerning, among other things, the Authority's right to require deposits in the event of a customer's failure to make payment for any two monthly bills. This is consistent with the approach the Authority now takes in most of its power sale contracts.
- The Company must perform energy audits at the facility receiving the allocation. The customer would have the option to satisfy the audit requirement through either a traditional physical audit, or a virtual audit using the Authority's New York Energy Manager which is expected to provide considerable savings for customers who select it.
- The Contract provides for collection of a Zero Emission Credit Charge and a Renewable Energy Credit Charge to allow the Authority to recover costs it incurs relating to its purchase of Zero Emission Credits and Renewable Energy Credits attributable to the load of the Company.
- SOC will agree to supplemental commitments which include a capital investment commitment of at least \$85 million and an employment commitment requiring SOC to employ at least 165 full-time employees at the facility receiving the allocation for the term of the allocation. The Authority has the right to reduce or terminate the allocation if employment, power utilization, or capital investment commitments are not met.

The Authority has discussed the Contract with SOC and has received its consent to the Contract. The Company has also acknowledged application of the appropriate tariff, discussed above, to the allocation.

A public hearing on the Contract was held on September 30, 2019 at the Authority's Buffalo Office, 535 Washington Street, Suite 202, Buffalo, NY 14203. No oral statements were given at the public hearing. The official transcript of the public hearing is attached as Exhibit '4b ii-C.' No substantive changes were made to the Contract as a result of the public hearing process.

RECOMMENDATION

The Senior Vice President - Clean Energy Solutions recommends that the Trustees approve the Contract for the sale of 10,000 kW of Replacement Power to Somerset Operating Company, LLC and authorize the transmittal of the Contract to the Governor for his review and to seek his authorization for the Authority to execute the Contract pursuant to PAL §1009.

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

The following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That the contract ("Contract") for the sale of 10,000 kilowatts ("kW") of Replacement Power to Somerset Operating Company, LLC is in the public interest, and in accordance with Public Authorities Law §1009 should be submitted to the Governor for his review and to seek his authorization for the Authority to execute the Contract, along with a copy of the record of the public hearing thereon, and copies of the Contract along with the record of the public hearing thereon, be forwarded to the

Speaker of the Assembly, the Minority Leader of the Assembly, the Chairman of the Assembly Ways and Means Committee, the Temporary President of the Senate, the Minority Leader of the Senate and the Chairman of the Senate Finance Committee; and be it further

RESOLVED, That the Chairman and the Corporate Secretary be authorized and directed to execute such Contract in the name of, and on behalf of, the Authority if the Contract is approved by the Governor; and be it further

RESOLVED, That the Executive Vice President and Chief Commercial Officer, or his or her designee, be, and hereby is, authorized, subject to the approval of the form thereof by the Executive Vice President and General Counsel, to negotiate and execute any and all documents necessary or desirable to implement the Contract with Somerset Operating Company, LLC as set forth in the foregoing report of the President and Chief Executive Officer; and be it further

RESOLVED, That the Chairman, the Vice Chair, 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, 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.

iii. **High Load Factor Power Sale Contract and Tariff**

The President and Chief Executive Officer submitted the following report:

"SUMMARY

The Trustees are requested to approve a contract (hereinafter, 'Contract') for the sale of High Load Factor ('HLF') Power to East Coast Nitrogen Company LLC ('ECNC'), and new Authority Service Tariff No. HLF-1 ('ST HLF-1'), which would apply to the sale of HLF Power awarded and sold to eligible businesses on or after March 26, 2019. Copies of the Contract and ST HLF-1 are attached as Exhibit '4b iii-A.'

BACKGROUND

The Authority is authorized to allocate and sell HLF Power by the Power Authority Act, including Public Authorities Law ('PAL') §1001 and §1005. The statute defines a high load factor manufacturer as 'one which normally utilizes a minimum electric demand of five thousand kilowatts and which will normally utilize energy at the rate of approximately five hundred forty kilowatt hours per month for each kilowatt of demand and of which the cost of electricity normally represents at least seven and one-half percent of its total product value.'

At their meeting on March 26, 2019, the Trustees approved the transfer of 17,600 kW of HLF Power from Air Products and Chemicals, Inc., and 7,700 from Messer LLC, to ECNC which will operate as a joint venture between these two companies. The transferred HLF Power, totaling 25,300 kW (hereinafter, the 'Allocation') will have a term of ten (10) years, and will support a capital investment of at least \$45 million by ECNC and the employment of 66 full-time employees for the term of the Allocation. Since the closure of the Authority's James A. Fitzpatrick nuclear power plant in or around approximately 2005, the Authority has sourced HLF from market sources. A benefit of HLF Power is that it enjoys an exemption from certain delivery-related surcharges, such as the System Benefits Charge, Revenue Decoupling Mechanism, and Legacy Transition Charge.

DISCUSSION

1. **Proposed Contract and ST HLF-1**

As part of a periodic review of power program contracts and related documents, staff has developed a revised contract form which is reflected in the proposed Contract with ECNC, and an updated tariff, ST HLF-1, for the sale of HLF. These documents are attached to this Memorandum as Exhibit '4b iii-A.'

Pertinent provisions of the proposed Contract and ST HLF-1 may be summarized as follows:

- ST HLF-1 provides for the recovery of all New York Independent System Operator ('NYISO') related costs the Authority incurs in connection with provision of Electric Service and the Authority's role as load serving entity for the Customer.
- The Authority will provide, and the Customer will pay for, unforced capacity to meet the Customer's NYISO requirements associated the Allocation.
- The Authority will periodically communicate with the customer about energy-related projects, programs and services offered by the Authority.
- The Contract provides for supplemental commitments by the Customer relating to job creation/retention, capital investment and power utilization. The contract also includes compliance provisions that allow the Authority to reduce the HLF allocation for a customer's

failure to meet supplemental commitments and gives the customer an opportunity to present a proposed plan with actionable milestones to cure compliance deficiencies.

- The Contract contains provisions for recovery of the Authority's costs for actions taken to comply with the State Energy Plan and Clean Energy Standard, such as the purchase of Zero Emission Credits and Renewable Energy Credits in amounts that correspond to the load served under the contract.
- The term of the Allocation would be up to ten years.

FISCAL INFORMATION

HLF power and energy would be sourced from the market and possibly other sources in the Authority's discretion, and the Contract and ST HLF-1 would provide for full cost recovery.

RECOMMENDATION

The Senior Vice President – Clean Energy Solutions recommends that the Trustees approve the form of the proposed contract for the sale of High Load Factor Power to East Coast Nitrogen Company LLC and new Authority Service Tariff No. HLF-1.

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

The following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That the proposed form of contract for the sale of High Load Factor Power to East Coast Nitrogen Company LLC (“Contract”), and proposed Authority Service Tariff No. HLF-1, attached as Exhibit “4b iii-A” to the foregoing report of the President and Chief Executive Officer (“Report”), are hereby approved, and the form of such Contract and Service Tariff No. HLF-1 shall apply to the of High Load Factor Power awarded and sold on or after March 26, 2019 to eligible businesses, subject to such amendments and modifications as are determined to be appropriate by Senior Vice President – Clean Energy Solutions and approved as to form by the Executive Vice President and General Counsel; and be it further

RESOLVED, That the Chairman, the Vice Chair, 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, 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. Procurement (Services) Contracts:

**i. Procurement (Services) Contracts –
Business Units and Facilities – Awards,
Extensions and/or Additional Funding**

The President and Chief Executive Officer submitted the following report:

SUMMARY

The Trustees are requested to approve the award and funding of the multiyear procurement (services) contracts listed in Exhibit '4c i-A,' as well as the continuation and/or funding of the procurement (services) and other contracts listed in Exhibit '4c i-B,' in support of projects and programs for the Authority's Business Units/Departments and Facilities. Detailed explanations of the recommended awards and extensions, including the nature of such services, the bases for the new awards if other than to the lowest-priced, lowest total cost of ownership or 'best valued' bidders and the intended duration of such contracts, or the reasons for extension and the projected expiration dates, are set forth in the discussion below.

BACKGROUND

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

The Authority's current Expenditure Authorization Procedures ('EAPs') require the Trustees' approval for the award of non-personal services, construction, equipment purchase or non-procurement contracts in excess of \$6 million, as well as personal services contracts in excess of \$2 million if low bidder or best value, or \$1 million if sole-source, single-source or other non-competitive award.

The Authority's current EAPs also require the Trustees' approval when the cumulative change order value of a personal services contract exceeds \$500,000, or when the cumulative change order value of a non-personal services, construction, equipment purchase, or non-procurement contract exceeds the greater of \$6 million or 25% of the originally approved contract amount not to exceed \$6 million.

DISCUSSION

Awards

The Trustees are requested to approve the award and funding of the multiyear procurement (services) contracts listed in Exhibit '4c i-A,' where the EAPs require approval based upon contract value or the terms of the contracts will be more than one year. Except as noted, all of these contracts contain provisions allowing the Authority to terminate the services for the Authority's convenience, without liability other than paying for acceptable services rendered to the effective date of termination. Approval is also requested for funding all contracts. Except as noted, these contract awards do not obligate the Authority to a specific level of personnel resources or expenditures.

The issuance of multiyear contracts is recommended from both cost and efficiency standpoints. In many cases, reduced prices can be negotiated for these long-term contracts. Since these services are typically required on a continuous basis, it is more efficient to award long-term contracts than to rebid these services annually.

Extensions

Although the firms identified in Exhibit '4c i-B' have provided effective services, the issues or projects requiring these services have not been resolved or completed and the need exists for continuing these contracts. The Trustees' approval is required because the terms of these contracts will exceed one year including the extension, the term of extension of these contracts will exceed one year and/or because the cumulative change-order limits will exceed the levels authorized by the EAPs in forthcoming change orders. The subject contracts contain provisions allowing the Authority to terminate the services at the Authority's convenience, without liability other than paying for acceptable services rendered to the effective date of termination. These contract extensions do not obligate the Authority to a specific level of personnel resources or expenditures.

Extension of the contracts identified in Exhibit '4c i-B' is requested for one or more of the following reasons: (1) additional time is required to complete the current contractual work scope or additional services related to the original work scope; (2) to accommodate an Authority or external regulatory agency schedule change that has delayed, reprioritized or otherwise suspended required services; (3) the original consultant is uniquely qualified to perform services and/or continue its presence and rebidding would not be practical or (4) the contractor provides proprietary technology or specialized equipment, at reasonable negotiated rates, that the Authority needs to continue until a permanent system is put in place.

The following is a detailed summary of each recommended contract award and extension.

Contract Awards in Support of Business Units/Departments and Facilities:

Commercial Operations – Energy Services Product Development

Due to the need to meet and maintain the Authority's project schedule, the proposed personal services contracts with **Ove Arup & Partners P.C. ('Ove') (4600003783)** and **Unger Security Solutions LLC ('Unger') (4600003777)** for the design build advisory services became effective November 25, 2019, for the initial interim award amount of \$200,000, subject to the Trustee's approval, in accordance with the Authority's Guidelines for Procurement Contracts and EAP's. The objective of the advisory services is to better enable NYPA to manage the implementation of projects through a design-build project delivery mechanism using Design-Build Institute of America ('DBIA') best practices. Bid documents were developed by staff and were accessible through the NYPA.gov site. The Request for Quotations was advertised on the New York State *Contract Reporter* website and posted on the Procurement page of the Authority's website. Fifty-eight firms / entities were listed as having been invited to, or requested to participate in, the Ariba event. Two proposals were received electronically via Ariba and were evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of contracts to Ove and Unger which are technically and commercially qualified and meet the bid requirements on the basis of 'best value', which optimizes quality, cost and efficiency among responsive and responsible offerors. The contracts are for an intended term of five years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the aggregate amount expected to be expended for the term of the contracts, \$2 million.

Commercial Operations – Strategy Planning – EV Technology & Engineering

Due to the need to meet and maintain the Authority's project schedule, the proposed personal services contracts with **AECOM USA, Inc. ('AECOM') (4600003719)**, **Akimeka LLC ('Akimeka') (4600003724)**, **Burns & McDonnell Consultants, Inc. dba Burns & McDonnell Consultants P.C. ('Burns') (4600003718)**, **DNV Kema Renewables, Inc. ('DNV') (4600003762)**, **Energy and Environmental Economics, Inc. ('EEE') (4600003725)**, **M.J. Bradley & Associates LLC ('M.J. Bradley') (4600003715)**, **Navigant Consulting, Inc. ('Navigant') (4600003720)**, **Vermont Energy Investment Corporation ('Vermont') (4600003723)**, **West Monroe Partners LLC ('WMP') (4600003717)** and **Western Power Project Advisors ('WPPA') (4600003716)** for the provision of consulting services in support of the EVolve NY program became effective November 1, 2019, for the

initial interim award amount of \$500,000, subject to the Trustee's approval, in accordance with the Authority's Guidelines for Procurement Contracts and EAP's. These contracts will provide for consultants to advise and assist in the management of multiple projects in the field of electric transportation. Bid documents were developed by staff and were accessible through the NYPA.gov site. The Request for Quotations was advertised on the New York State *Contract Reporter* website and posted on the Procurement page of the Authority's website. Forty-four firms / entities were listed as having been invited to, or requested to participate in, the Ariba event. Eighteen proposals were received electronically via Ariba and were evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of contracts to AECOM, Akimeka, Burns, DNV, EEE, M.J. Bradley, Navigant, Vermont, WMP and WPPA which are technically and commercially qualified and meet the bid requirements on the basis of 'best value', which optimizes quality, cost and efficiency among responsive and responsible offerors. The contracts are for an intended term of five years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the aggregate amount expected to be expended for the term of the contracts, \$2 million. WPPA is a NYS-certified Minority-owned Business Enterprise.

Human Resources & Administration – Organizational Development

The proposed personal services contract with **Mercer (US), Inc. dba Mercer Health & Benefits LLC ('MH&B') (Q19-6714RM)** would provide workforce planning consulting services. Bid documents were developed by staff and were accessible through the NYPA.gov site. The Request for Quotations was advertised on the New York State *Contract Reporter* website and posted on the Procurement page of the Authority's website. Twenty-six firms / entities were listed as having been invited to, or requested to participate in, the Ariba event. Eight proposals were received electronically via Ariba and were evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of contract to MH&B which is technically and commercially qualified and meets the bid requirements on the basis of 'best value', which optimizes quality, cost and efficiency among responsive and responsible offerors. The contract is for an intended term of up to five years, including an initial three-year term and option to extend for two additional years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the amount expected to be expended for the term of the contract, \$2.2 million.

Human Resources & Administration – Total Awards

The proposed personal services contract with **Total Administrative Services Corporation dba TASC ('TASC') (Q19-6728JW)** would provide Consolidated Omnibus Budget Reconciliation Act of 1985 ('COBRA') Administration Services. COBRA requires the New York Power Authority and the New York State Canal Corporation to continue health care coverage for terminated employees and family members for a set period after termination of employment and other qualifying events when health coverage terminates. The health benefits include medical, dental, vision, hearing and health care flexible spending account benefits like those offered to active employees. Bid documents were developed by staff and were accessible through the NYPA.gov site. The Request for Quotations was advertised on the New York State *Contract Reporter* website and posted on the Procurement page of the Authority's website. Nine firms / entities were listed as having been invited to, or requested to participate in, the Ariba event. Five proposals were received electronically via Ariba and were evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of contract to TASC which is technically and commercially qualified and meets the bid requirements on the basis of 'best value', which optimizes quality, cost and efficiency among responsive and responsible offerors. The contract is for an intended term of five years, subject to the Trustees' approval, which is hereby requested. This contract will begin on January 1, 2020 and end on December 31, 2024. Approval is also requested for the amount expected to be expended for the term of the contract, \$105,000.

Strategy Planning – Strategy & Corporate Development

The proposed personal services contracts with **Clarkson University and the State University of New York College of Environmental Science and Forestry ('Clarkson / SUNY ESF') and Cornell University dba Cornell Local Roads Program ('Cornell') (Q19-6727RM)** would provide Climate Change Education Partnership with Academic Institution services. Bid documents were developed by

staff and were accessible through the NYPA.gov site. The Request for Quotations was advertised on the New York State *Contract Reporter* website and posted on the Procurement page of the Authority's website. Eighteen firms / entities were listed as having been invited to, or requested to participate in, the Ariba event. Two proposals were received electronically via Ariba and were evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of contracts to Clarkson / SUNY ESF and Cornell which are technically and commercially qualified and meet the bid requirements on the basis of 'best value', which optimizes quality, cost and efficiency among responsive and responsible offerors. The contract is for an intended term of five years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the aggregate amount expected to be expended for the term of the contracts, \$2 million.

Utility Operations – Civil/Structural Engineering

The proposed personal services contracts with **CHA Consulting, Inc. ('CHA'), Greenman-Pedersen, Inc. ('Greenman-Pedersen')** and **M.J. Engineering and Land Surveying P.C. ('M.J. Engineering') (Q19-6793CC)** would provide Bridge Inspection Services. The Niagara Power Project Bridges and the Saint Lawrence Barnhart Island Bridge are subject to New York State Department of Transportation ('NYSDOT') Inspection requirements, which include inspections every two years in accordance with the NYSDOT procedures. Bid documents were developed by staff and were accessible through the NYPA.gov site. The Request for Quotations was advertised on the New York State *Contract Reporter* website and posted on the Procurement page of the Authority's website. Eighteen firms / entities were listed as having been invited to, or requested to participate in, the Ariba event. Five proposals were received electronically via Ariba and were evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of contracts to CHA, Greenman-Pedersen and M.J. Engineering which are technically and commercially qualified and meet the bid requirements on the basis of 'best value', which optimizes quality, cost and efficiency among responsive and responsible offerors. The contract is for an intended term of five years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the aggregate amount expected to be expended for the term of the contract, \$2 million.

Utility Operations – Civil/Structural Engineering

The proposed non-personal services contracts with **Hohl Industrial Services, Inc. ('Hohl')** and **M.G. McLaren P.C. dba McLaren Engineering Group ('McLaren') (Q19-6789DKT)** would provide underwater inspection services at various NYPA locations. Underwater inspection services are required to support operations and maintenance of Authority facilities and will be provided on an 'on-call' basis. Services will include underwater engineering inspections, debris management and minor underwater equipment/structure repair. The deliverable from each assignment will be an inspection report containing results, dive videos, drawings, photos, repair recommendations and cost estimate for any recommended repairs. Bid documents were developed by staff and were accessible through the NYPA.gov site. The Request for Quotations was advertised on the New York State *Contract Reporter* website and posted on the Procurement page of the Authority's website. Three firms / entities were listed as having been invited to, or requested to participate in, the Ariba event. Seven proposals were received electronically via Ariba and were evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of contracts to Hohl and McLaren which are technically and commercially qualified and meet the bid requirements on the basis of 'best value', which optimizes quality, cost and efficiency among responsive and responsible offerors. The contract is for an intended term of five years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the aggregate amount expected to be expended for the term of the contract, \$3 million.

Utility Operations – Environmental Operations

Due to the need to meet and maintain the Authority's project schedule, the proposed personal services contracts with **AECOM USA, Inc. ('AECOM') (4600003779), Hartgen Archeological Associates, Inc. ('Hartgen') (4600003778), Landmark Archeology, Inc. ('Landmark') (4600003781), Richard Grubb and Associates, Inc. dba RGA, Inc. ('RGA') (4600003782) and The Louis Berger**

Group (Domestic), Inc. ('Louis Berger') (4600003780) for General Cultural Resources Services became effective November 1, 2019 for the initial interim award amount of \$30,000, subject to the Trustee's approval, in accordance with the Authority's Guidelines for Procurement Contracts and EAP's. Cultural Resources professionals with specialized expertise are sometimes required to support NYPA operations on an 'on-call' and/or 'as-needed' basis. These services will be used during emergency situations and/or when internal staff requires additional expert support. Bid documents were developed by staff and were accessible through the NYPA.gov site. The Request for Quotations was advertised on the New York State *Contract Reporter* website and posted on the Procurement page of the Authority's website. Eighteen firms / entities were listed as having been invited to, or requested to participate in, the Ariba event. Eleven proposals were received electronically via Ariba and were evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of contracts to AECOM, Hartgen, Landmark, RGA and Louis Berger which are technically and commercially qualified and meet the bid requirements on the basis of 'best value', which optimizes quality, cost and efficiency among responsive and responsible offerors. The contracts are for an intended term of five years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the aggregate amount expected to be expended for the term of the contract, \$1,750,000. Landmark and RGA are both NYS-certified Women-owned Business Enterprises.

Utility Operations – Environmental Operations

Due to the need to meet and maintain the Authority's project schedule, the proposed construction services contracts with **Abscope Environmental, Inc. ('Abscope') (4600003743)** and **NRC NY Environmental Services, Inc. ('NRC') (4600003744)** for the Planned and Emergency Response Abatement of Asbestos, Lead and Polychlorinated Biphenyl ('PCB') Services at Authority facilities became effective October 15, 2019, for the initial interim award amount of \$150,000, subject to the Trustee's approval, in accordance with the Authority's Guidelines for Procurement Contracts and EAP's. The Authority currently has 'on-call' contract suppliers to perform planned and emergency response abatement of asbestos, lead and PCB at its facilities and sub facilities throughout New York State by licensed asbestos contractors. As a result of the current contracts expiring in October 2019, new contracts will be required to provide asbestos, lead and PCB abatement services, transport and disposal services and emergency response services for asbestos, lead and PCB removal, repair, encapsulation, enclosure or cleanup, as required, at NYPA facilities on planned and emergency basis. Bid documents were developed by staff and were accessible through the NYPA.gov site. The Request for Quotations was advertised on the New York State *Contract Reporter* website and posted on the Procurement page of the Authority's website. Ten firms / entities were listed as having been invited to, or requested to participate in, the Ariba event. Four proposals were received electronically via Ariba and were evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of contracts to Abscope and NRC which are technically and commercially qualified and meet the bid requirements on the basis of 'best value', which optimizes quality, cost and efficiency among responsive and responsible offerors. The contracts are for an intended term of five years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the aggregate amount expected to be expended for the term of the contract, \$3.5 million.

Utility Operations – Facility Management

Due to the need to meet and maintain the Authority's project schedule, the proposed non-personal services contract with **Core Facility Services LLC ('Core') (4600003766)** for contract administration services for the Operating Engineers / Electricians at the Clarence D. Rappleyea Building in White Plains became effective October 1, 2019, with an initial interim award amount of \$500,000, subject to the Trustee's approval, in accordance with the Authority's Guidelines for Procurement Contracts and EAP's. Bid documents were developed by staff and were accessible through the NYPA.gov site. The Request for Quotations was advertised on the New York State *Contract Reporter* website and posted on the Procurement page of the Authority's website. Four firms / entities were listed as having been invited to, or requested to participate in, the Ariba event. Three proposals were received electronically via Ariba and were evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of contract to Core which is technically and commercially

qualified and meets the bid requirements on the basis of 'best value', which optimizes quality, cost and efficiency among responsive and responsible offerors. The contract is for an intended term of five years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the amount expected to be expended for the term of the contract, \$9,250,000.

Utility Operations – General Maintenance

The proposed non-personal service contract with **Casella Waste Management of New York, Inc. dba Northern Sanitation ('NS') (6000184705)**, would provide refuse services for the Plattsburgh Substation. Bid documents were developed by staff and were accessible through the NYPA.gov site. Three firms / entities were listed as having been invited to, or requested to participate in, the Ariba event. One proposal was received electronically via Ariba and was evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of contract to NS which is technically and commercially qualified and meets the bid requirements on the basis of 'best value', which optimizes quality, cost and efficiency among responsive and responsible offerors. The contract is for an intended term of three years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the amount expected to be expended for the term of the contract, \$20,000.

Utility Operations – Project Management

The proposed non-personal services contract with **Waste-Stream, Inc. dba Casella Resource Solutions ('CSR') (Q19-6734MR)** would provide disposal of treated wood poles. The majority of wood pole disposal volume will be generated by the Moses-Adirondack Smart Path Reliability Project ('the Project'). The Project will rebuild a portion (approximately 78 miles) of the Moses-Adirondack 1 and 2 transmission lines (MA1 and MA2). The rebuild will require removal of existing poles which may include preservation chemicals such as creosote and pentachlorophenol. The Authority will also use this contract for the disposal of treated wood poles at other NYPA sites. Bid documents were developed by staff and were accessible through the NYPA.gov site. The Request for Quotations was advertised on the New York State *Contract Reporter* website and posted on the Procurement page of the Authority's website. Nine firms / entities were listed as having been invited to, or requested to participate in, the Ariba event. Two proposals were received electronically via Ariba and were evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of contract to CSR which is technically and commercially qualified and meets the bid requirements on the basis of 'best value', which optimizes quality, cost and efficiency among responsive and responsible offerors. The contract is for an intended term of five years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the amount expected to be expended for the term of the contract, \$1 million.

Utility Operations – Safety

The proposed non-personal services contract with **Johnson Controls Fire Protection LP ('JCFP') (N19-20141577GJ)** would provide inspection, testing and maintenance services for various fire protection systems throughout the Niagara Power Project. Bid documents were developed by staff and were accessible through the NYPA.gov site. The Request for Quotations was advertised on the New York State *Contract Reporter* website and posted on the Procurement page of the Authority's website. Seven firms / entities were listed as having been invited to, or requested to participate in, the Ariba event. Two proposals were received electronically via Ariba and were evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of contract to JCFP which is technically and commercially qualified and meets the bid requirements on the basis of 'best value', which optimizes quality, cost and efficiency among responsive and responsible offerors. The contract is for an intended term of five years beginning January 1, 2020, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the amount expected to be expended for the term of the contract, \$500,000.

Utility Operations – Transmission

The proposed personal services contracts with **CHA Consulting, Inc. ('CHA'), Power Engineers Consulting P.C. ('PEC')** and **Underground Systems, Inc. ('USI') (Q19-6765MR)** would provide for underground transmission line assessments and capital program planning. The Authority has ownership of multiple high-voltage, high-pressure fluid filled ('HPFF') cables dating back to the 1970's. These lines include the 345 kV Long Island Sound cable transmission circuit, Y-49, which has nearly 30 years of operation; the 345 kV Q35L & Q35M transmission cables, which have nearly 45 years of operation, and the 345 kV RFK305 submarine cable, which has been in operation for over 33 years. The Authority has agreements with two operating and maintenance partners for the transmission circuits located within the Southeast New York region, Public Service Electric and Gas Long Island ('PSEG-LI') and Consolidated Edison of New York ('ConEd'). Bid documents were developed by staff and were accessible through the NYPA.gov site. The Request for Quotations was advertised on the New York State *Contract Reporter* website and posted on the Procurement page of the Authority's website. Twenty-one firms / entities were listed as having been invited to, or requested to participate in, the Ariba event. Eight proposals were received electronically via Ariba and were evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of contracts to CHA, PEC and USI which are technically and commercially qualified and meet the bid requirements on the basis of 'best value', which optimizes quality, cost and efficiency among responsive and responsible offerors. The contracts are for an intended term of three years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the amount expected to be expended for the term of the contract, \$2,390,544.45 in the aggregate.

Extensions and/or Additional Funding Requests:

Commercial Operations – Market Issues

On May 22, 2019, the Authority issued a one-year single source contract to **Balch & Bingham LLP ('B&B') (4500311909)** in the amount of \$90,000 to provide legal services. Balch has been selected by the New York Transmission Owners ('NYTO') which includes the Authority to provide services to Federal Energy Regulatory Commission ('FERC'), New York Public Service Commission, New York Independent System Operator and the New York State Reliability Council proceedings as well as matters as requested by the NYTO. Legal expenses are equally shared by the six NYTOs. Staff requests Trustee approval for the extension of the B&B contract for two-years, through May 21, 2022 and also requests additional funding in the amount of \$500,000 to pay for the one-sixth share for the Authority's share of the agreement.

Human Resources & Administration – Real Estate

On December 12, 2017, the Authority issued five-year personal services contracts to **C.T. Male Associates Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C. ('C.T. Male') (4600003417)**, **Fisher Associates P.E., L.S., L.A., D.P.C. ('Fisher') (4600003415)** and **GOED Corporation ('GOED') (4600003420)** in the aggregate amount of \$9.5 million to provide survey and mapping services. Due to a rapid increase in demand for highly technical, rapidly evolving and costly specialty surveys (Bathymetrical, multibeam sonar, terrestrial scanning and LiDAR), particularly for FERC and Dam Safety Reports, the original contract values have already been significantly depleted. Staff anticipates that requests for these services will continue to rise as various Authority departments seek to adopt the newer technology. Staff requests Trustee approval for the increase of the contracts to C.T. Male, Fisher and GOED by 25% each to accommodate a significant and unanticipated increase in the Authority's wide demand for survey and mapping services. The total requested increase is \$2,375,000.

Law – Contracts, Licensing & Environmental

On January 14, 2019, the Authority issued a one-year single source contract to **Katten Muchin Rosenman LLP ('KMR') (4500306938)** in the amount of \$75,000 to provide legal services. Staff requests Trustee approval for the extension of the KMR contract for one-year, through January 13, 2021,

and also requests additional funding in the amount of \$200,000 to provide legal services regarding the restructuring of the energy efficiency project financing program. Interim approval is also requested in the amount of \$100,000 to continue with the services that are required to successfully complete this initiative. A new lending structure for local governments and other customers is necessary because the Authority has reached the maximum lending capacity under the current lending program.

Law – Contracts, Licensing & Environmental

On November 12, 2018, the Authority issued a one-year single source contract to **Troutman Sanders LLP ('Troutman') (4500303845)** in the amount of \$100,000 to provide legal services. The law firm represents the Authority before the Federal Energy Regulatory Commission ('FERC') regarding the Authority's relicensing of the Crescent and Vischer Ferry small hydroelectric power plants whose FERC licenses will expire at the end of May 2024. The law firm supported the Authority's efforts and schedule to file the required FERC pre-application filing in April 2019. Staff requests Trustee approval for a three-year extension through November 11, 2022, including the period between initial term expiration and Trustee action on the request, and additional funding in the amount of \$600,000 to provide continue application preparation. Interim approval is also requested in the amount of \$35,000.

Utility Operations – Facility Management

On May 12, 2015, the Authority issued a five-year non-personal services contract to **Michael Bellantoni, Inc. ('MBI') (4600002942)** in the amount of \$480,000 for landscaping services at the Authority's White Plains office. Staff requests Trustee approval for the extension of the MBI contract for one year and seven-months, through December 31, 2021 to provide continuation of services through the entire 2020-2021 landscaping season. Approximately \$384,000 of the original \$480,000 in funding remains available for use in the existing contract. No additional funding is requested.

Utility Operations – Project Management

On January 22, 2019, the Authority issued a one-year personal services contract to **The Lumry Company, Inc. ('Lumry') (4600003585)** in the amount of \$500,000 for qualified personnel and equipment to provide independent Helicopter Support Review Services for the Authority. The requested change order for the extension and increased funding is designed to eliminate the gap and allow to continue with the Transmission projects until a new contract is awarded. Due to the revised outage schedule for the Communications Backbone Project, additional personnel will be required to support the expected increased compliment of helicopters working on the PV20, MMS1 and NR2 Transmission Lines during the same time period. Furthermore, NYPA will be needing Aviation SME support in March 2020 for OPGW installation. Staff requests Trustee approval for the extension of the Lumry contract for six-months from January 21, 2020 through July 21, 2020, and also requests additional funding in the amount of \$300,000.

Utility Operations – Project Management

On January 7, 2019, the Authority issued a one-year construction services contract to **Perras Excavating, Inc. ('Perras') (4500304517)** in the amount of \$907,987 for construction services associated with the St. Lawrence Control Room upgrades. For the continuation of these construction services, Staff requests Trustee approval for the extension of the Perras contract for approximately eleven months, through November 30, 2020. No additional funding is being requested at this time.

Utility Operations – Project Management

On November 20, 2018, the Authority issued a one-year construction services contract to **Securitas Electronic Security, Inc. ('Securitas') (4500303394)** in the amount of \$360,703.45 for installation, testing and commissioning of security equipment. Subsequent change orders of \$30,000 were approved by management in accordance with the EAP's. To provide additional time to complete

exterior fencing work, Staff requests Trustee approval for the extension of the Securitas contract for the interim period of November 20, 2019 through December 11, 2019 and fully for approximately one year, through November 3, 2020. No additional funding is being requested at this time.

FISCAL INFORMATION

Funds required to support contract services for various Business Units/Departments and Facilities have been included in the 2019 Approved Operating or Capital Budget. Funds for subsequent years, where applicable, will be included in the budget submittals for those years. Payment will be made from the Operating or Capital Fund, as applicable.

Funds required to support contract services for capital projects have been included as part of the approved capital expenditures for those projects and will be disbursed from the Capital Fund in accordance with the project's Capital Expenditure Authorization Request, as applicable.

RECOMMENDATION

The Senior Vice President – Operations Support Services and Chief Engineer; the Senior Vice President – Power Supply; the Senior Vice President – Strategy & Corporate Development; the Senior Vice President – Clean Energy Solutions; the Senior Vice President – Public & Regulatory Affairs; the Vice President – Project Management; the Vice President – Environmental, Health & Safety; the Vice President – Engineering; the Vice President – Engineering and Construction Management; the Vice President – Strategy; the Vice President – Total Compensation & HRIS; the Vice President – HR & Organizational Development; the Vice President – Enterprise Shared Services; the Regional Manager Central NY; the Regional Manager of Western NY; recommend that the Trustees approve the award of multiyear procurement (services) and other contracts to the companies listed in Exhibit '4c i-A' and the extension and/or funding of the procurement (services) contracts listed in Exhibit '4c i-B,' for the purposes and in the amounts discussed within the item and/or listed in the respective exhibits.

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

The following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That pursuant to the Guidelines for Procurement Contracts adopted by the Authority, the award and funding of the multiyear procurement services contracts set forth in Exhibit "4c i-A," attached hereto, are hereby approved for the period of time indicated, in the amounts and for the purposes listed therein, as recommended in the foregoing report of the President and Chief Executive Officer; and be it further

RESOLVED, That pursuant to the Guidelines for Procurement Contracts adopted by the Authority, the contracts listed in Exhibit "4c i-B," attached hereto, are hereby approved and extended for the period of time indicated, in the amounts and for the purposes listed therein, as recommended in the foregoing report of the President and Chief Executive Officer; 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, 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.

d. Capital Expenditure Authorization Requests

**i. Niagara River Intake Upgrades Project –
Capital Expenditure Authorization Request**

The President and Chief Executive Officer submitted the following report:

SUMMARY

The Trustees are requested to authorize capital expenditures in the amount of \$3,064,000 for the Niagara River Intake Upgrades Project ('Project'). The estimated cost for the Project is \$8,818,100, of which \$5,754,100 was previously approved by the President and Chief Executive Officer in November 2018.

BACKGROUND

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

Two intake conduits, running side-by-side, divert water from the Upper Niagara River to the forebay and supply water to the plant. The waterway conduits are each equipped with a single intake gate located off the Niagara Scenic Parkway on the Upper Niagara River. Each gate is operated by a fixed-wire, rope-type hoist and existing dogging devices which provide redundant means to hold the gates in a suspended vertical position.

A majority of the electrical and mechanical components at the Niagara River Intake Structures are at the end of their useful life and replacement parts are no longer available. The failure of these components jeopardizes the availability of critical assets, which are primarily needed during emergency events and mandated inspections.

DISCUSSION

The scope of this Project includes a full evaluation and replacement or modernization of all related mechanical, electrical, and structural components of the intake gates and associated structures to ensure operational reliability. Field assessments and engineering analysis will also identify any deficiencies of the electrical, mechanical, and structural components so that the gates and hoisting systems can be brought up to the latest industry standards.

Additionally, the Authority has a regulatory commitment to the Federal Energy Regulatory Commission ('FERC') that the buried water conduits are inspected every 25 years. As such inspections were successfully completed in April 2019. A full closure of the intake gates was required to curtail the water flow inside the conduits. Prior to lowering the gates, substantial work was performed to ensure operational reliability and availability of the gates. This included replacement of the hoist ropes and analysis and refurbishment of the dogging devices, gate slots, stop logs, and lifting beams which was performed under this Project.

Funding in the amount of \$3,064,000, which is being requested, will be utilized for:

- Structural engineering evaluation
- Electrical distribution and controls upgrades
- Mechanical equipment upgrades
- Structural components upgrade
- Authority site support and engineering

The total Project cost, inclusive of preliminary funding and this current request, is estimated at \$8,818,100, and is summarized as follows:

Preliminary Eng./Licensing	\$ 4,800,000
Engineering/Design/Procurement	\$ 472,500
Construction/Installation	\$ 2,640,000
Project Closeout	\$ 300,000
<u>Authority Direct & Indirect Expense</u>	<u>\$ 605,600</u>
TOTAL ESTIMATED PROJECT COST	\$ 8,818,100

The current estimate of \$8.82M is based on current costs associated with preliminary engineering assessment and implementation performed to date, construction support, and actual bids for a full evaluation of electrical and mechanical equipment. The assessments will be completed by mid-2020 and recommended upgrades will be bid by the end of 2020, at which time additional funding may be required and requested at that time. Construction will be completed by the end of 2021.

FISCAL INFORMATION

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

RECOMMENDATION

The Senior Vice President – Operations Support Services, the Vice President – Project Management, the Regional Manager, and the Senior Program Director – Generation recommend that the Trustees approve the current request for capital expenditures in the amount of \$3,064,000 for the Niagara River Intake Upgrades Project.

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

The following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That pursuant to the Authority's Capital Planning and Budgeting Procedures, capital expenditures in the amount of \$3,064,000 are hereby authorized for the implementation of the Niagara River Intake Upgrades Project in accordance with, and as recommended in, the foregoing report of the President and Chief Executive Officer; and be it further

RESOLVED, That the Authority will use Capital Funds, which will include proceeds of debt issuances, to finance the costs of the Niagara River Intake Upgrades Project.

<u>Capital</u>	<u>Expenditure Authorization</u>
Niagara River Intake Upgrades Project	<u>\$3,064,000</u>

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, 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

e. Finance

**i. Seaway Private Equity Corporation –
Grant Agreement Amendment**

The President and Chief Executive Officer submitted the following report:

"SUMMARY"

The Trustees are requested to approve an amendment to the Amended and Restated Grant Agreement with the Seaway Private Equity Corporation ('SPEC') to extend its term through December 31, 2020 and to increase the amount set aside for legal and administrative expenses by authorizing SPEC to use the interest earned on the unexpended principal for such expenses.

BACKGROUND

By resolution approved September 20, 2005, as part of the St. Lawrence Relicensing Settlement Agreements, the Trustees authorized the Authority to negotiate the terms and conditions of a grant agreement ('Grant Agreement') with a St. Lawrence County not-for-profit corporation, subsequently incorporated as SPEC. Pursuant to that grant agreement, the Authority would provide a grant of \$10 million to be invested by SPEC under a capital commitment agreement ('Capital Commitment Agreement') with Golden Technology Management, LLC ('Golden'). Golden, in turn, would raise an additional \$20 million in private equity funds for the purpose of establishing a pool for investments in technology businesses to promote economic development and increase employment and the tax base in St. Lawrence County.

The original Grant Agreement was amended, effective as of March 1, 2006 ('Amended and Restated Grant Agreement'), to: (i) clarify the definitions of business development firms in which SPEC may invest, (ii) allow SPEC to invest in firms other than Golden, (iii) allow SPEC to invest in firms that are not 'new technology' firms (requiring a two-thirds vote of the SPEC Board), and (iv) require that the Authority approve any alternate business development firms prior to SPEC's investment.

On July 28, 2009, the Trustees approved two amendments to the Amended and Restated Grant Agreement with SPEC to: (i) authorize SPEC to waive provisions of the standard-form Amended and Restated Capital Commitment Agreement upon a vote of two-thirds of its Board of Directors and (ii) increase the amount set aside for legal and administrative expenses, from \$250,000 to \$500,000 by authorizing SPEC to use the interest earned on the principal for such expenses.

On January 23, 2013, the Trustees approved a further amendment to the Amended and Restated Grant Agreement with SPEC to increase the amount set aside for legal and administrative expenses, from \$500,000 to \$750,000 by authorizing SPEC to use the interest earned on the principal for such expenses.

On March 20, 2018, the Trustees approved a further amendment to the Amended and Restated Grant Agreement with SPEC to extend its term to December 31, 2019 and to further increase the amount set aside for legal and administrative expenses, from \$750,000 to \$800,000 by authorizing SPEC to use the interest earned on the principal for such expenses.

On May 21, 2019, the Trustees approved a further amendment to the Amended and Restated Grant Agreement with SPEC to increase the amount set aside for legal and administrative expenses, from \$800,000 to \$850,000 by authorizing SPEC to use the interest earned on the principal for such expenses.

Since its inception, SPEC has invested approximately \$9,332,079 of the original \$10,000,000 in firms located in St. Lawrence County. The fund has a balance of \$1,082,664.12 (including earned interest less expenses).

SPEC has now requested that the term of the Amended and Restated Grant Agreement be extended through December 31, 2020 and that the cap on administrative expenses be increased from \$850,000 to \$925,000. Currently, approximately \$829,864.00 has been expended by SPEC for administrative expenses. To date, the principal grant amount has earned \$1,321,132.79 in interest. It is recommended that the cap on administrative expenses be increased to \$925,000, with such increase to be paid out of the interest earned.

RECOMMENDATION

The Executive Vice President and Chief Financial Officer recommends that the Trustees approve an amendment to the Amended and Restated Grant Agreement with the Seaway Private Equity Corporation to extend its term through December 31, 2020 and to increase the amount set aside for legal and administrative expenses from \$850,000 to \$925,000 using the interest earned on the principal for such expenses.

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

The following resolution, as submitted by the President and Chief Executive Officer, was adopted with Vice Chairman recused from the vote.

RESOLVED, That an amendment to the Amended and Restated Grant Agreement with the Seaway Private Equity Corporation (“SPEC”) to extend its term through December 31, 2020 and to increase the amount set aside for legal and administrative expenses from \$850,000 to \$925,000 using the interest earned on the principal for such expenses, be, and hereby is, approved on the terms set forth in the foregoing report of the President and Chief Executive Officer; 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, 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.

f. Canal Corporation

**i. Procurement (Services) Contract – General
Environmental Services – Contract Award**

The President and Chief Executive Officer submitted the following report:

"SUMMARY

The Board of Directors ('Board') is requested to approve the award of competitively bid personal services contracts related to Inquiry No. K19-10286242CC to LaBella Associates, D.P.C. of Rochester, NY; LiRo Engineers, Inc. of Syosset, NY; C.T. Male Associates Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C. of Latham, NY; Civil & Environmental Consultants of New York, Inc. of Ballston Lake, NY; and Parsons Engineering of New York, Inc. of Syracuse, NY in the aggregate amount of \$5,000,000 and for a duration of three years with an option for two 1-year extensions.

In accordance with the New York State Canal Corporation's ('NYSCC's') Procurement Guidelines and Expenditure Authorization Procedures ('EAPs'), Board approval is required when the award of service contracts and/or purchase order releases exceeds one year in term or the value of such personal service contracts exceeds \$2,000,000.

BACKGROUND

The environmental services are required to support NYSCC's operations and projects at all NYSCC facilities and areas of business on an 'on-call' basis. These services will be used when environmental requirements are beyond the resources of existing NYSCC environmental staff, or during emergency situations when NYSCC's staff are not immediately available.

The services outlined in the Request for Proposal ('RFP') can generally be placed into two categories, Environmental Operations and Environmental Studies. Under operations, projects can be expected to include, but are not limited to: hazardous waste management plans, site investigations, spill prevention, control and countermeasure plans, compliance support, design and monitoring, closure and decommissioning, state pollutant discharge elimination system permits, notices of termination, notices of intent, stormwater pollution prevention plans. For environmental studies, projects can be expected to range from fisheries studies, wetland delineation and design, environmental due diligence, rare-threatened and endangered species considerations.

DISCUSSION

In response to an advertisement issued on August 29, 2019 for General Environmental Services, RFP Inquiry No. K19-10286242CC, twenty-three (23) proposals (bids) were received on the bid due date of August 29, 2019. The bids were technically reviewed by an Evaluation Committee consisting of New York Power Authority and NYSCC Environmental, Health & Safety staff and commercially reviewed by New York Power Authority Strategic Supply Management staff. The Evaluation Committee recommended that the Environmental General Services contracts be awarded to the five (5) most technically qualified, cost effective bidders.

FISCAL INFORMATION

All associated expenditures will be paid from the Canal Corporation's capital or operating fund, as appropriate.

RECOMMENDATION

The Director – Environmental Health & Safety recommends that the personal services contracts related to Inquiry No. K19-10286242CC, Environmental General Services, be awarded to: LaBella Associates, D.P.C. of Rochester, NY; LiRo Engineers, Inc. of Syosset, NY; C.T. Male Associates Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C. of Latham, NY; Civil & Environmental Consultants of New York, Inc. of Ballston Lake, NY; and Parsons Engineering of New York, Inc. of Syracuse, NY, in the aggregate amount of \$5,000,000 for a duration of three years with the possibility of two 1-year extensions.

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

The following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That pursuant to the New York State Canal Corporation’s Procurement Guidelines and Expenditure Authorization Procedures, approval is hereby granted to award personal services contracts to LaBella Associates, D.P.C. of Rochester, NY; LiRo Engineers, Inc. of Syosset, NY; C.T. Male Associates Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C. of Latham, NY; Civil & Environmental Consultants of New York, Inc. of Ballston Lake, NY; and Parsons Engineering of New York, Inc. of Syracuse, NY, in the aggregate amount of \$5,000,000 and for a duration of three years with the possibility of two 1-year extensions for General Environmental Services, as recommended in the foregoing report of the President and Chief Executive Officer;

<u>Contractor</u>	<u>Location</u>	<u>Aggregate Contract Award</u>
LaBella Associates, D.P.C.	Rochester, NY	
LiRo Engineers, Inc.	Syosset, NY	
C.T. Male Associates Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C.	Latham, NY	
Civil & Environmental Consultants of New York, Inc.	Ballston Lake, NY	
Parsons Engineering of New York, Inc.	Syracuse, NY	
K19-10286242CC		<u>\$5,000,000.00</u> (aggregate)

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 New York State Canal Corporation are, and each of them hereby is, authorized on behalf of the New York State Canal Corporation to do any and all things, 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.

5. DISCUSSION AGENDA:

a. Strategic Initiatives

i. President and Chief Executive Officer's Report

President Quiniones provided highlights of the Authority's performance, to date, to the Board, (Exhibit "5a i-A").

Performance Scorecard

NYPA's Overall Performance

President Quiniones said that to date, NYPA is meeting or exceeding its key performance targets; the goal is to finish strong in 2019.

Vision 2030: Proposed Mission and Vision

President Quiniones said that NYPA's 2030 proposed *Vision* is for "A thriving and resilient New York powered by clean energy" and the associated new *Mission* will be "Leading the transition to a carbon free, economically vibrant New York through partnership with customers on innovative energy solutions and the responsible supply of affordable, clean, reliable electricity." This is the Authority's response to the Climate Leadership and Community Partnership Act ("CLCPA"), the new legislation and the new policy agenda for the state.

In addition, NYPA is putting the customer at the center of this energy transformation in terms of Customer Decarbonation; creating Value for its Customers and spurring Clean Economic Development, the three strategic goals for Vision 2030.

President Quiniones said that the plan is to create business cases for the investments in the strategic themes and, at the annual Board meeting in March, seek the Board's approval for the six Vision 2030 strategic themes: Affordable and Reliable Clean Electron Supply; Energy Efficiency; Electrification: Demand Flexibility; Enterprise Digitization; and Workforce Development.

President Quiniones ended by saying that to be able to execute this Plan, the Authority needs to have a trained, qualified and motivated workforce and will achieve this through organizational development, staff development, recruiting and retaining talent, the core of the new strategy.

Reimagine the Canals

President Quiniones said that the Task Force for the Reimagine the Canals initiative is in the process of completing its recommendations and the Authority will have specific recommendations for the Board's approval next year.

U.S. Virgin Islands and Puerto Rico – Mutual Aid

The Authority is providing mutual assistance to the U.S. Virgin Islands and Puerto Rico as follows:

1. To help them stabilize their grids and stop frequent regional or Island-wide blackouts;
2. On an on-going basis, help them develop applications and projects for making their grids more resilient and applications for funding to FEMA and HUD at the Federal level;
3. Develop strategic roadmaps and a 10-year investment plan to create more resilient utilities; and

- 4.** Provide technical guidance on distributed energy projects such as solar and energy storage.

In addition, the Authority is working with the utilities on creating an environment of incorporating more renewable energy such as wind, solar and storage, into their systems, over time.

b. Utility Operations

i. Chief Operations Officer's Report

Mr. Joseph Kessler, Executive Vice President and Chief Operations Officer, provided highlights of Utility Operations' performance to the Board. (Exhibit "5b i-A")

Performance Measures – Year-to-Date

Generation Market Readiness

- Generation Market Readiness factor was at 99.72%. This is above the target of 97.40%.

Transmission System Reliability

- Transmission System Reliability factor was 96.34%. This is above the target of 94.96%.

Environmental Incidents

- Year-to-date, there were 15 incidents. The Target is not to exceed 23 incidents.

Safety

DART (Days Away, Restricted or Transferred) is the Authority's safety metrics.

- The year-to-date DART Rate is 0.79. The target is 0.78.

1. Procurement (Services) Contract – Transmission Life Extension & Modernization Program – Niagara Power Project – Niagara Switchyard LEM – Contract Award

The President and Chief Executive Officer submitted the following report:

SUMMARY

The Trustees are requested to ratify the award of a three-year, competitively bid contract to Ferguson Electric Construction Co., Inc., of Buffalo, NY, in the amount of \$29,072,000 for the Transmission Life Extension & Modernization Program ('T-LEM') at the Niagara Switchyard. Interim funding in the amount of \$1,000,000 was previously approved by the Chief Operating Officer to allow for project initiation costs and to maintain the schedule.

Funding for this capital project will be released from the capital expenditures previously approved by the Trustees for the overall Niagara T-LEM Program at their May 22, 2014 meeting.

BACKGROUND

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

T-LEM is a multiyear program that will upgrade the Authority's existing transmission system to maintain availability, increase reliability and ensure regulatory compliance and is estimated at \$726 million. The Program encompasses NYPA's transmission assets in the Central, Northern, and Western regions and has been divided into several projects.

The Niagara Switchyard LEM is a multiyear project within the T-LEM program and includes upgrades to the 115kV and 230kV switchyards. The Niagara Switchyard LEM is estimated at \$267 million.

The Project has been sequenced so that equipment replacements are aligned with relay upgrades that are currently in progress to take advantage of outages, internal resource availability and external utility upgrades. The Niagara Switchyard LEM is scheduled to be completed in 2025. This contract addresses components of Phase 2 of the Project consisting of the demolition and replacement of the equipment listed below including pulling and terminating cables, installing access platforms to new equipment, aerial cable, and equipment connections:

- 2 - 115 kV Circuit Breakers
- 22 - 230 KV Circuit Breakers
- 2 - Auto Transformers 1 (AT1) and 3
- 14 - Motor Operated Disconnects
- 46 - Manual Disconnect Switches
- 64 - Potential Transformers
- 1 - 230 kV Coupling Capacitor Voltage Transformer
- 15 - Current Transformers
- 2 - 230 kV PT/CT Combo Units
- 27 - Surge Arrestors
- 18 - 230 kV Transient Recovery Voltage Capacitors

In addition to the equipment above, this contract involves the following:

- AT1 Foundation: Demolition and disposal of existing cables and foundations, excavate backfill, trench, paving, form and reinforce concrete, furnish and install micro piles and furnish/install structural steel required for AT1.
- AT1 Deluge System: design, furnish and install AT1 Deluge system.
- DC Battery System Upgrade Design: Perform battery sizing, charger calculations, short circuit analysis, DC System trip study, cable sizing calculations, voltage drop study, AC loading study and complete design of battery room from 30% Design.

DISCUSSION

The Authority issued a Request for Proposal, No. Q19-6722DKT, via Ariba e-sourcing, which was advertised in the New York State *Contractor Reporter* on May 31, 2019.

Proposals were received on September 30, 2019 from the following companies:

- 1) Black & McDonald
- 2) Ferguson Electric

Several post-bid addenda were issued to both bidders requesting pricing updates to their base proposals in response to required changes to the base scope.

Bidders' base price and evaluated price (updated with post-bid addenda information) and best and final evaluated price, are shown below:

Bidder	Unevaluated Bid Price	Evaluated Best and Final Offer Bid Price
Black & McDonald	\$28,146,147	\$30,500,000
Ferguson Electric	\$29,072,000	\$29,072,000
NYPA Fair Cost Estimate	\$29,300,000	\$29,300,000

The proposals were reviewed by the evaluation committee consisting of Authority staff from Engineering, Strategic Supply Management, Niagara Operations and Maintenance, Quality Assurance, Environmental Health & Safety, and Project Management. All proposals were reviewed against pre-established evaluation criteria and compliance with the scope-of-work.

Black & McDonald's proposal was technically acceptable and showed that they have experience executing similar projects. However, Black & McDonald submitted a schedule that did not meet the required completion dates for one of the components in the RFP.

Additionally, through an updated Project Execution Plan, Black & McDonald confirmed costs for overhead cable were not included in their initial proposal. Black & McDonald submitted a best and final offer including the missing cable cost, which increased its final price to \$30,500,000.

Ferguson's proposal is the lowest-priced and is technically qualified. Ferguson's best and final offer is approximately \$1 million lower than its competitor and in line with the Authority's fair cost estimate. Ferguson is currently completing Phase 1 of the Niagara T-LEM program and has worked on several other projects to the satisfaction of the Authority.

FISCAL INFORMATION

Payment associated with this Project will be made from the Authority's Capital Fund and will be recovered under the Authority's Annual Transmission Revenue Requirement.

RECOMMENDATION

The Senior Vice President and Chief Engineer – Operations Support Services, the Vice President – Strategic Supply Management, the Vice President – Project Management and the Senior Program Director recommend that the Trustees approve the award of the contract to Ferguson Electric Construction Co., Inc., of Buffalo, NY, in the amount of \$29,072,000, for the Transmission Life Extension & Modernization Program at the Niagara Switchyard.

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

Mr. Joseph Kessler, Chief Operations Officer, provided highlights of staff's recommendation to the Board.

On motion made by Vice Chair Nicandri and seconded by Trustee Trainor, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That pursuant to the Guidelines for Procurement Contracts adopted by the Authority and the Authority's Expenditure Authorization Procedures, approval is hereby granted to award a three-year contract to Ferguson Electric Construction Co., Inc., of Buffalo, NY, in the amount of \$29,072,000, for the Transmission Life Extension & Modernization Program at the Niagara Switchyard, as recommended in the foregoing report of the President and Chief Executive Officer;

Contractor

Contract Approval

**Ferguson Electric Construction Co.
Buffalo NY**

\$ 29,072,000

Q19-6722DKT

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, take any and all actions and execute and deliver any and all agreements, certificates and other documents to effectuate the foregoing resolution, subject the approval of the form thereof by the Executive Vice President and General Counsel.

2. Procurement (Services) Contract – Transmission Life Extension & Modernization Program – Niagara Power Project – 13.8kV Switchgear Replacement – Contract Award

The President and Chief Executive Officer submitted the following report:

“SUMMARY

The Trustees are requested to approve the award of a three-year, competitively bid contract to EATON Corporation of Warrendale, PA ('EATON'), which offered the Best Value, in the amount of \$25,272,279, to engineer, procure and construct new equipment as part of the 13.8kV Switchgear Replacement Project ('Project') for the Transmission Life and Extension & Modernization Program ('T-LEM') at the Niagara Switchyard which includes optional pricing for the replacement of the cables associated with the 13.8kV Switchgear.

Funding for this capital project will be released from the capital expenditures previously approved by the Trustees for the overall Niagara T-LEM Program at their May 22, 2014 meeting.

BACKGROUND

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

The existing 13.8kV Switchgear is divided into three buses labeled as 'Bus 1, Bus 2 and Bus 3.' Buses 1 & 2 are located inside the Service and Relay Building ('S&R Building'). The S&R Building is a central controlling and monitoring facility critical to the operation to the Switchyard. Bus 3 is located in the 115kV Switchyard. The buses are interconnected to each other via tiebreakers that provide critical power to the entire Niagara complex including the Lewiston Pump Generating Plant.

In 2011, an assessment study was performed that evaluated the power equipment and infrastructure of the Niagara Switchyard facility. The assessment reviewed the current condition of the switchyard equipment, identified operational risks associated with equipment condition and reviewed maintenance practices. Subsequently, recommendations for upgrades, refurbishment and replacement of substation equipment were provided, which was used to develop the Niagara T-LEM Program.

This assessment highlighted possible bus failure due to loosen connections and safety concerns during manual operations of the breakers as risks with the current 13.8kV Switchgear equipment. Per the 2011 report recommendation, the 13.8kV switchgear should be replaced within 10 years, which is in line with the current contract schedule.

DISCUSSION

The Authority issued a Request for Proposal, No. Q18-6528HM, via Ariba e-sourcing, which was advertised in the New York State *Contractor Reporter* on September 25, 2018.

Proposals were received on January 4, 2019 from the following companies:

- 1) AECOM USA, Inc.
- 2) EATON Power
- 3) O'Connell Electric

Several post-bid addenda were issued to the three bidders requesting pricing and schedule updates to their base proposals in response to required changes to the base scope and project delivery schedule.

Bidders' base price and evaluated price (updated with post-bid addenda information) and best and final evaluated price, are shown below:

Bidder	Initial Bid Price	Best and Final Bid Price	Cables (Optional)
AECOM USA	\$20,035,464	\$26,244,054	\$1,192,260
EATON Power	\$24,519,850	\$24,277,279	\$995,000
O'Connell Electric	\$17,303,984	\$21,538,984	\$588,000
NYPA Fair Cost Estimate	\$19,425,000	\$19,425,000	Not Provided

The proposals were reviewed by the evaluation committee consisting of Authority staff from Engineering, Strategic Supply Management, Niagara Operations and Maintenance departments, Quality Assurance, Environmental Health & Safety, and Project Management. All proposals were reviewed and evaluated on a 'Best Value' basis applying the following evaluation criteria: switchgear location/cable routing (depends on switchgear location), switchgear design (vendor), sequencing plan, cost, schedule, bidder experience/team members' resume, subcontractor list, demolition/disposal plan, controls, engineering studies, familiarity with the Niagara switchyard, and support & parts.

O'Connell Electric, although the lowest priced proposal, was the lowest rated response and did not meet the overall requirements. Furthermore, O'Connell Electric scored lowest in switchgear location/cable routing, switchgear design (vendor), bidder's experience / team members' resume, engineering studies, familiarity with the Niagara switchyard, and support & parts.

AECOM, the second highest rated response, met the overall requirements but fell short in switchgear design, bidder experience/team members' resume, demolition/disposal plan, and engineering studies.

EATON, the highest rated response, met the overall requirements and excelled in the following areas: switchgear location/cable routing, switchgear design, bidders experience/team members' resumes, demolition/disposal plan, controls, engineering studies, familiarity with the Niagara switchyard and support & parts.

FISCAL INFORMATON

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

RECOMMENDATION

The Senior Vice President and Chief Engineer – Operations Support Services, the Vice President – Strategic Supply Management, the Vice President – Project Management and the Senior Program Director recommend that the Trustees ratify the award of the contract to EATON Corporation, of Warrendale, PA, in the amount of \$25,272,279, to engineer, procure and construct new equipment as part of the 13.8kV Switchgear Replacement Project for the Transmission Life and Extension & Modernization Program at the Niagara Switchyard which includes the optional pricing for the replacement of the cables associated with the 13.8kV Switchgear.

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

Mr. Joseph Kessler, Chief Operations Officer, provided highlights of staff's recommendation to the Board.

On motion made by Vice Chair Nicandri and seconded by Trustee Trainor, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That pursuant to the Guidelines for Procurement Contracts adopted by the Authority and the Authority's Expenditure Authorization Procedures, approval is hereby granted to award a three-year contract to EATON Corporation, of Warrendale, PA., in the amount of \$25,272,279, for the engineering, design, procurement, installation and construction associated with new enclosed 13.8KV Switchgear for the Transmission Life Extension & Modernization Program at the Niagara Switchyard, as recommended in the foregoing report of the President and Chief Executive Officer; and be it further

RESOLVED, That the Authority will use Capital Funds, which will include proceeds of debt issuances, to finance the costs of this Project;

<u>Contractor</u>	<u>Contract Approval</u>
EATON Corporation Warrendale, PA	\$25,272,279
Q18-6528HM	

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, take any and all actions and execute and deliver any and all agreements, certificates and other documents to effectuate the foregoing resolution, subject the approval of the form thereof by the Executive Vice President and General Counsel.

3. Procurement (Services) Contract – On-Call Program/ Project Management Services – Contract Awards

The President and Chief Executive Officer submitted the following report:

“SUMMARY

The Trustees are hereby requested to approve the award of a competitively bid five-year contract related to inquiry Q19-6743JGM for Program and Project Management Services in the aggregate not-to-exceed amount of \$100,000,000 to a total of six (6) technically-qualified firms: AECOM USA, Inc. of New York, NY; CHA Consulting, Inc. of Albany, NY; Jacobs Engineering New York, Inc. of New York, NY; Jingoli Power, LLC, of Lawrenceville, NJ; Power Engineers Consulting, a professional services corporation, of Ann Arbor, MI; and WSP USA Inc. of New York, NY.

BACKGROUND

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

The on-call contracts for Program and Project Management will provide the Authority with a funding mechanism for a wide variety of capital improvements in its goal of becoming an end-to-end digital utility compliant with ISO 55001 standards for asset management on a number of projects. Work on each project will be assigned to the firm possessing the most capability in the subject and geographical location required. The award of multiple contracts ensures that adequate skill coverage will be available, as required, supplementing the Authority’s staff in some areas and providing timely access to specialty skills in other areas. The categories in the solicitation include Program and Project Management, Construction Management, Project Controls, and Procurement.

DISCUSSION

Bid Inquiry, Q19-6743JGM, for Program/Project Management Services Request for Proposal (‘RFP’) was advertised in the New York State *Contract Reporter* and posted to the Authority’s Procurement website on June 27, 2019. The RFP solicited proposals from consulting firms with experience in providing applicable program and project management services for such projects as the Authority’s Power Generation and Transmission Assets.

Twenty-Five (25) proposals were received. The proposals were reviewed based on evaluation criteria specified in the RFP documents:

- Professional qualifications and experience of key personnel and backup staff.
- Experience in specific technical areas of interest to the Authority.
- Size and depth of organization and resources.
- Cost of services.
- Proximity to Authority facilities.
- Knowledge of Authority facilities and systems.
- Prior Authority experience.

As a result of the review of the proposals, ten firms were selected for presentations of which six were recommended for selection by the evaluation committee. The work to be performed under this group of contract includes the following services which are to be delivered in a standardized way according to ISO 55001:

Program and Project Management

- Scope Development
- Quality Control Process
- Contract Management

Procurement Support

- Market Research
- Supply Chain Management

Construction Management

- Construction Inspection
- Payment Processing

Project Controls

- Master Scheduling
- Cost Management
- Document Control
- Cost Estimation

Specific projects and other services they may be called upon to support include the following:

- Transmission Life Extension & Modernization Program ('TLEM'): Massena; Niagara, Breaker & Relay, and Remote Substations;
- Communications Backbone Program: to establish a dedicated, redundant communication network;
- Moses-Adirondack Smart Path Reliability: including rebuilding a portion of the Moses-Adirondack 1 and 2 (MA1 and MA2) transmission lines;
- Sensor Deployment: installation of smart sensors to improve transmission grid by continuously monitoring assets;
- Digital Substation (Saranac): upgrade the Saranac Substation in the Northern NY Region;
- Robert-Moses LEM (now called Next Generation Niagara): replace, overhaul and/or upgrade the thirteen generating units and their associated equipment;
- Y-49 LEM: capital improvements, refurbishments, and repairs associated with the Y-49 circuit;
- Disaster Response: currently anticipating recovery assistance for Puerto Rico, with the possibility of support in other areas being required as well.

FISCAL INFORMATION

Services under these contracts will be provided on an as-needed basis and/or availability, using the hourly rates. Expenditures for these contracts will be paid from the Authority's Capital or Operating Fund, as appropriate.

RECOMMENDATION

The Senior Vice President – Operations Support Services and Chief Engineer, the Vice President – Project Management, the Vice President – Strategic Supply Management and the Program Director recommend that the Trustees approve awards of five-year contracts for the On-Call Program/Project Management Services in the aggregate not-to-exceed amount of \$100,000,000 to AECOM USA, Inc; CHA Consulting, Inc.; Jacobs Engineering New York, Inc.; Jingoli Power, LLC; Power Engineers Consulting, a professional services corporation; and WSP USA Inc.

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

Mr. Joseph Kessler, Chief Operations Officer, provided highlights of staff's recommendation to the Board.

On motion made by Vice Chair Nicandri and seconded by Trustee Trainor, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That pursuant to the Guidelines for Procurement Contracts adopted by the Authority and the Authority's Expenditure Authorization procedures, the award and funding of the five-year contracts to the firms listed below, in the aggregate not-to-exceed amount of \$100,000,000, is hereby approved as recommended in the foregoing report of the President and Chief Executive Officer;

- **AECOM USA, Inc. of New York, NY;**
- **CHA Consulting, Inc. of Albany, NY;**
- **Jacobs Engineering New York, Inc. of New York, NY;**
- **Jingoli Power, LLC, of Lawrenceville, NJ;**
- **Power Engineers Consulting, a Professional Services Corporation, of Ann Arbor, MI;**
- **WSP USA Inc. of New York, NY;**

AND BE IT FURTHER RESOLVED, That the Chairman, the Vice Chair, 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.

4. Procurement (Services) Contract – Emergency Spill Response and Disposal for Land and Surface Water Petroleum and Hazardous Material Spill

The President and Chief Executive Officer submitted the following report:

“SUMMARY

The Trustees are requested to approve a five-year contract to Clean Harbors Environmental Services, Inc. of Norwell, MA; Miller Environmental Group, Calverton, NY; National Vacuum Corporation, Niagara Falls, NY; NRC NY Environmental Services, of Syracuse, NY and WRS Environmental Services, Inc., Yaphank, NY for Emergency Spill Response and Disposal for Land and Surface Water Petroleum and Hazardous Materials Spills for an aggregate amount of \$15 million dollars.

BACKGROUND

Section 2879 of the Public Authorities Law and the Authority's Guidelines for Procurement Contracts require the Trustee approval for procurement contracts involving services to be rendered for a period in excess of one year. Additionally, in accordance with the Authority's Expenditure Authorization Procedures, the award of non-personal services contracts exceeding \$6 million requires Trustee approval.

The Authority's operating facilities, substations, electrical transmission facilities, and maintenance and support facilities store and use various types of oils and hazardous materials in their normal operating practices. Government regulations require that owners and operators of facilities that store oil and have the potential to spill oil on land or waters of the United States or adjoining shorelines prepare Spill Prevention Control and Countermeasure ('SPCC') Plans. In addition, Government regulations require that a strong spill contingency plan be contained in the SPCC Plan which provides a written commitment of manpower, equipment and materials required to expeditiously control and remove any harmful quantity of oil discharged. Significant efforts are made to prevent oil spills at all Authority projects. The Authority retains emergency spill response contracts in compliance with federal, state and local regulations.

The selected firms would provide, on an on-call basis, emergency spill response, clean-up and disposal services for the Authority's electric generating stations, substations, transmission facilities and maintenance and support facilities throughout the State. Emergency response services include containment, clean-up and recovery of petroleum and hazardous substances.

Disposal services include the removal of spilled petroleum and hazardous substances, contaminated environmental media, adsorbents and debris from the Authority's facilities. All clean-up, transport and waste management services will be provided in the most environmentally safe, responsible and timely manner, in compliance with all federal, state, and local laws, regulations and permit requirements.

The award of multiple contracts will ensure that each facility will have sufficient resources to respond to a spill within two hours of notification in a timely and cost-efficient manner. These contracts would become effective on or about March 1, 2020 for an intended term of up to five years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the total aggregate amount expected to be expended for the term of the contracts, \$15 million. Such contracts will be closely monitored for utilization levels, available approved funding and combined total expenditures.

DISCUSSION

The Authority issued a for Request for Proposal ('RFP'), Q19-6679JB, through the Ariba system, which was advertised in the New York State *Contract Reporter* on April 2, 2019. Sixteen firms were invited into the Ariba Event with thirty-five firms having viewed the RFP on the Authority's Strategic

Supply Management website. Six proposals were received on May 10, 2019. A Bid Addendum was issued to include costs associated with Arc Flash Protection Clothing requirements as well as information on capabilities and qualifications in aerial surveillance and helicopter services.

An Evaluation Team comprised of Nick Carvin, Jon Mayette, Patrick Holden, Marie Pittignano, John Nolan and Robert Peterson from Environmental and Donna Keough (SSM) evaluated all proposals, post bid addendum. Updated proposals were received from Allied Environmental Services of New York, LLC, Clean Harbors Environmental Services, Inc., Miller Environmental Group Inc., NRC NY Environmental Services, Inc., National Vacuum Corporation, and WRS Environmental Services, Inc. Proposals were carefully screened and evaluated using the following criteria:

1. Completeness of submittal which included the following items:
 - Identification of Authority facility/facilities for which the proposal pertains;
 - Contractor declared response time for labor and equipment to arrive at the Authority facility;
 - Description of the proposer's spill response and clean-up capabilities for land and surface water oil spills;
 - List of available equipment and materials and staging locations of the equipment;
 - Rates for labor and equipment;
 - United States (U.S.) Coast Guard Oil Pollution Act of 1990 ('OPA 90') certification;
 - Current copies of New York State Department Environmental Conservation ('NYSDEC') 6 New York Code Rule and Regulation ('NYCRR') Part 364 waste transporter permit;
 - Description of Health and Safety and training programs;
 - A complete listing of violations issued in the last three years by state and federal agencies.
2. Response time to the Authority's facility.
3. Amount and type of equipment at the contractors' staging facility.
4. U.S. Coast Guard OPA 90 certification indicating level of marine environment; response capability.
5. Calculated costs for typical land and surface water spill scenarios.

A cost associated for response and clean-up was established using contractor supplied rates for labor and equipment based on a defined spill scenario from a hypothetical spill event which required response using land and water equipment. This determined which contractor was most cost-effective.

Five of the six oil spill response and clean-up contractors, Clean Harbors Environmental Services, Inc., Miller Environmental Group Inc., NRC NY Environmental Services, Inc., National Vacuum Corporation, and WRS Environmental Services, Inc. have been chosen to be placed under contract to provide emergency spill response, clean-up, and disposal services for the Authority's electric generating stations, electrical substations, transmission facilities and support and maintenance facilities. These five contractors were chosen to ensure that each Authority facility will be able to obtain the necessary resources to respond to a spill within two hours of contractor notification.

Allied Environmental Services of NY, Inc., was the highest cost of the three bids received for the Western New York Region and, therefore, was not further considered.

Clean Harbors was the only firm that took exceptions to the terms and conditions. All exceptions have been negotiated and mutually agreed upon.

All bid packages were carefully evaluated using the above criteria. A contractor's response time of two hours or less with sufficient resources to contain, control and clean-up discharged oil was a primary factor in bidder selection. U.S. Coast Guard certification which establishes response capability guidelines in a marine environment also played an important role in contractor selection for Authority facilities which have the potential to discharge oil to surface waters.

FISCAL INFORMATION

Funds required will be included in the budget submittal for each year. Payment will be made from specific project budget codes arising from various cost centers.

RECOMMENDATION

The Vice President – Environmental, Health and Safety and the Vice President – Procurement, recommend that the Trustees approve the award of a five-year contract to Clean Harbors Environmental Services, Inc., Miller Environmental Group Inc., NRC NY Environmental Services, Inc., National Vacuum Corporation, and WRS Environmental Services, Inc., for an aggregate amount of \$15 million dollars, for Emergency Spill Response and Disposal for Land and Surface Water Petroleum and Hazardous Materials Spills.

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

Mr. Joseph Kessler, Chief Operations Officer, provided highlights of staff's recommendation to the Board.

On motion made by Vice Chair Nicandri and seconded by Trustee Trainor, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That pursuant to the Guidelines for Procurement Contracts adopted by the Authority and the Authority's Expenditure Authorization Procedures, approval is hereby granted to award a five-year contract to Clean Harbors, Miller, NRC NY, National Vacuum Corporation, and WRS for an aggregate total of \$15 million dollars, for Emergency Spill Response and Disposal for Land and Surface Water Petroleum and Hazardous Materials Spills, as recommended in the foregoing report of the President and Chief Executive Officer;

Contractor

Clean Harbors, Norwell, MA
Clean Harbors, Norwell, MA
Miller Environmental Group,
Calverton, NY
NRC NY Environmental Services, Inc.,
Syracuse, NY
National Vacuum Corporation,
Niagara Falls, NY
WRS Environmental Services, Inc.,
Yaphank, NY
(Q-19-6679JB)

Contract Approval

\$15 million aggregate)

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, take any and all actions and execute and deliver any and all agreements, certificates and other documents to effectuate the foregoing resolution, subject the approval of the form thereof by the Executive Vice President and General Counsel.

c. Commercial Operations

i. Chief Commercial Operations Officer's Report

Ms. Sarah Salati, Executive Vice President and Chief Commercial Officer, provided highlights of the Commercial Operations' year-to-date activities to the Board (Exhibit "5c i-A").

Wholesale

- **Customer Usage** performance is in line with what was anticipated.
- **Generation** is higher than the target. This is due to greater water flows from the Great Lakes.
- **Electricity Prices** continue to be depressed compared to what was set in the budgets.
- **Fuel Prices** are a little above the target.
- **Merchant Gross Margin** year-to date is below the \$324 million that was set in the budget.

Economic Development

The Authority continues to maintain a significant amount of jobs for the state of New York, fulfilling the Authority's mission for economic growth and competitiveness as well as the amount of capital that is committed for New York State.

Energy Efficiency

Customer investments and the capital that the Authority have deployed for project implementations are above the target.

The Authority continues with its trajectory to meet the objectives of the state in keeping with its policies and the Climate Leadership and Community Protection Act.

Non-Utility Revenues are above the target.

Operating Expenses are outside of the target.

1. Recharge New York Power Allocations

The President and Chief Executive Officer submitted the following report:

"SUMMARY"

The Trustees are requested to:

1. award allocations of Recharge New York ('RNY') Power available for 'retention' purposes to the businesses listed in Exhibit '5c i-1-A' in the amounts indicated on Exhibit '5c i-1-A';
2. award allocations of RNY Power available for 'expansion' purposes to the businesses listed in Exhibit '5c i-1-B' in the amounts indicated on Exhibit '5c i-1-B'; and
3. award allocations of RNY Power available for eligible small businesses and/or not-for-profit corporations to the entities listed in Exhibit '5c i-1-C' in the amounts indicated on Exhibit '5c i-1-C.'

These actions have been recommended by the Economic Development Power Allocation Board ('EDPAB') at its December 9, 2019 meeting.

BACKGROUND

On April 14, 2011, Governor Andrew M. Cuomo signed into law the RNY Power Program as part of Chapter 60 (Part CC) of the Laws of 2011 ('Chapter 60'). The program makes available 910 megawatts ('MW') of 'RNY Power,' 50% of which will be provided by the Authority's hydropower resources and 50% of which will be procured by the Authority from other sources. RNY Power contracts can be for a term of up to 7 years in exchange for job and capital investment commitments.

RNY Power is available to businesses and not-for-profit corporations for job retention and business expansion and attraction purposes. Specifically, Chapter 60 provides that at least 350 MW of RNY Power shall be dedicated to facilities in the service territories served by the New York State Electric and Gas, National Grid and Rochester Gas and Electric utility companies; at least 200 MW of RNY Power shall be dedicated to the purpose of attracting new businesses and encouraging expansion of existing businesses statewide; and up to 100 MW shall be dedicated for eligible not-for-profit corporations and eligible small businesses statewide.

Under the statute, 'eligible applicant' is defined to mean an eligible business, eligible small business, or eligible not-for-profit corporation, however, an eligible applicant shall not include retail businesses as defined by EDPAB, including, without limitation, sports venues, gaming or entertainment-related establishments or places of overnight accommodations. At its meeting on April 24, 2012, EDPAB defined a retail business as a business that is primarily used in making retail sales of goods or services to customers who personally visit such facilities to obtain goods or services, consistent with the rules previously promulgated by EDPAB for implementation of the Authority's Economic Development Power program.

Prior to entering into a contract with an eligible applicant for the sale of RNY Power, and prior to the provision of electric service relating to a RNY Power allocation, the Authority must offer each eligible applicant that has received an award of RNY Power the option to decline to purchase the RNY Market Power component of such award. If the applicant declines to purchase the RNY Market Power component from the Authority, the Authority has no responsibility for supplying RNY Market Power component of the award.

As part of Governor Andrew M. Cuomo's initiative to foster business activity and streamline economic development, applications for all statewide economic development programs, including the RNY Power Program, have been incorporated into a single on-line Consolidated Funding Application ('CFA') marking a fundamental shift in how State economic development resources are marketed and

allocated. Beginning in September 2011, the CFA was available to applicants. The CFA continues to serve as an efficient and effective tool to streamline and expedite the State's efforts to generate sustainable economic growth and employment opportunities. All applications that are considered for an RNY Power allocation are submitted through the CFA process.

Applications for RNY Power are subject to a competitive evaluation process and are evaluated based on the following criteria set forth in the statutes providing for the RNY Power Program (the 'RNY Statutes' also listed in Exhibit '5c i-1-G'):

- '(i) the significance of the cost of electricity to the applicant's overall cost of doing business, and the impact that a recharge New York power allocation will have on the applicant's operating costs;
- (ii) the extent to which a recharge New York power allocation will result in new capital investment in the state by the applicant;
- (iii) the extent to which a recharge New York power allocation is consistent with any regional economic development council strategies and priorities;
- (iv) the type and cost of buildings, equipment and facilities to be constructed, enlarged or installed if the applicant were to receive an allocation;
- (v) the applicant's payroll, salaries, benefits and number of jobs at the facility for which a recharge New York power allocation is requested;
- (vi) the number of jobs that will be created or retained within the state in relation to the requested recharge New York power allocation, and the extent to which the applicant will agree to commit to creating or retaining such jobs as a condition to receiving a recharge New York power allocation;
- (vii) whether the applicant, due to the cost of electricity, is at risk of closing or curtailing facilities or operations in the state, relocating facilities or operations out of the state, or losing a significant number of jobs in the state, in the absence of a recharge New York power allocation;
- (viii) the significance of the applicant's facility that would receive the recharge New York power allocation to the economy of the area in which such facility is located;
- (ix) the extent to which the applicant has invested in energy efficiency measures, will agree to participate in or perform energy audits of its facilities, will agree to participate in energy efficiency programs of the authority, or will commit to implement or otherwise make tangible investments in energy efficiency measures as a condition to receiving a recharge New York power allocation;
- (x) whether the applicant receives a hydroelectric power allocation or benefits supported by the sale of hydroelectric power under another program administered in whole or in part by the authority;
- (xi) the extent to which a recharge New York power allocation will result in an advantage for an applicant in relation to the applicant's competitors within the state; and
- (xii) in addition to the foregoing criteria, in the case of a not-for-profit corporation, whether the applicant provides critical services or substantial benefits to the local community in which the facility for which the allocation is requested is located.'

Based on the evaluation of these criteria, the applications were scored and ranked.

In arriving at recommendations for EDPAB's consideration, staff, among other things, attempted to maximize the economic benefits of low-cost NYPA hydropower, the critical state asset at the core of the RNY Power Program, while attempting to ensure that each recipient receives a meaningful RNY Power allocation.

Business applicants with relatively high scores were recommended for allocations of retention RNY Power of 50% of the requested amount or average historic demand, whichever was lower. These allocations were capped at 10 MW for any recommended allocation. Not-for-profit corporation applicants that scored relatively high were recommended for allocations of 33% of the requested amount or average historic demand, whichever was lower. These allocations were capped at 5 MW. Applicants currently receiving hydropower allocations under other Authority power programs were recommended for allocations of RNY Power of 25% of the requested amount, subject to the caps as stated above.

RNY Power allocations have been awarded by the Trustees on twenty-four prior occasions spanning from April 2012 through September 2019. Of the 200 MW block of RNY Power made available pursuant to Chapter 60 for business 'expansion' purposes, 87.2 MW remain unallocated. Of the 100 MW of RNY Power that is set aside for not-for-profit corporations and small businesses pursuant to Chapter 60, 0.4 MW remain unallocated. Of the remaining RNY Power made available pursuant to Chapter 60, 105.3 MW remain unallocated. These figures reflect Trustee actions on RNY Power applications taken prior to any actions the Trustees take today.

An allocation recommended by EDPAB qualifies the subject applicant to enter into a contract with the Authority for the purchase of the RNY Power assuming that the Authority concurs with EDPAB and makes an allocation award.

EDPAB, at its December 9, 2019 meeting, recommended that each of the applicants identified in Exhibits '5c i-1-A,' '5c i-1-B,' and '5c i-1-C' be awarded a RNY Power allocation in the amount indicated in the respective Exhibits.

Consistent with provisions of the RNY Statutes, EDPAB also recommended that the contract for the sale of these allocations contain:

- (1) provisions for effective periodic audits of the recipient of an allocation for the purpose of determining contract and program compliance, and for the partial or complete withdrawal of an allocation if the recipient fails to maintain commitments, relating to such things as employment levels, power utilization, capital investments, and/or energy efficiency measures;
- (2) requirements for an agreement by the recipient of an allocation undertake at its own expense an energy audit of its facilities at which the allocation is consumed modified by the Authority on a showing of good cause by the recipient, and that the recipient provide the Authority with a copy of any such audit or a report describing the results of such audit;
- (3) a requirement for an agreement by the recipient of an allocation to make its facilities available at reasonable times and intervals for energy audits and related assessments that the Authority desires to perform; and
- (4) a recommendation shall require that if the actual metered load at the facility where the allocation is utilized is less than the allocation, such allocation will be reduced accordingly.

The sale of RNY Power allocations that are awarded by the Trustees today would be governed by the revised form of RNY Power contract that was approved by the Trustees on March 26, 2019, and existing Authority Service Tariff RNY-1. The terms and conditions in the revised RNY Power contract form are consistent with the terms and conditions recommended by EDPAB that are described above.

DISCUSSION

1. Retention-Based RNY Power Allocations – Action Item

The Trustees are asked to address applications submitted via the CFA process for RNY Power retention-based allocations. Unless otherwise indicated in Exhibit '5c i-1-A,' these applications seek a RNY Power allocation for job retention purposes only.

Consistent with the evaluation process as described above, EDPAB recommended, at its December 9, 2019 meeting, that RNY Power retention allocations be awarded to the businesses listed in Exhibit '5c i-1-A.' Each business has committed to retain jobs in New York State and to make capital investments at their facilities in exchange for the recommended RNY Power allocations. The RNY Power 'retention' allocations identified in Exhibit '5c i-1-A' are each recommended for a term of 7 years unless otherwise indicated.

Staff recommends that the Trustees accept EDPAB's recommendations and award RNY Power allocations to each of the businesses listed on Exhibit '5c i-1-A' in the amounts indicated.

2. Expansion-Based RNY Power Allocations – Action Item

The Trustees are also asked to address applications submitted for RNY Power expansion-based allocations via the CFA process. Allocations for this purpose would be sourced from the 200 MW block of RNY Power dedicated by statute for 'for-profit' businesses that propose to expand existing businesses or create new business in the State. Unless otherwise indicated in Exhibit '5c i-1-B,' these applications seek a RNY Power allocation for expansion of an existing business or a new business/facility. EDPAB recommended, at its December 9, 2019 meeting, that RNY Power expansion-based allocations be made to the businesses listed in Exhibit '5c i-1-B.' Each such allocation would be for a term of 7 years unless otherwise indicated.

As with the evaluation process used for the retention recommendations described above, applications for the expansion-based RNY Power were scored based on the statutory criteria, albeit with a focus on information regarding each applicants' specific project to expand or create their new facility or business (e.g., the expansion project's cost, associated job creation, and new electric load due to the expansion).

The respective amounts of the expansion-related allocations listed in Exhibit '5c i-1-B' are largely intended to provide approximately 70% of the individual expansion projects' estimated new electric load. Because these projects have estimated new electric load amounts, and to ensure that an applicant's overestimation of the amount needed would not cause that applicant to receive a higher proportion of RNY Power to new load, the allocations in Exhibit '5c i-1-B' are recommended based on an 'up to' amount basis. Each of these applicants would be required to, among other commitments, add the new electric load as stated in its application, and would be allowed to use up to the amount of their RNY Power allocation in the same proportion of the RNY Power allocation to requested load as stated in Exhibit '5c i-1-B.'

Staff recommends that the Trustees accept EDPAB's recommendations and award RNY Power allocations to each of the businesses listed on Exhibit '5c i-1-B' in the amounts indicated.

3. Small Business and/or Not-for-Profit-Based RNY Power Allocations – Action Item

The Trustees are also asked to address applications submitted via the CFA process for RNY Power for eligible small businesses and/or not-for-profit corporations. Chapter 60 specifies that no more than 100 MW of RNY Power may be made available for eligible small businesses and eligible not-for-profit corporations.

Consistent with the evaluation process described above, EDPAB recommended, at its December 9, 2019 meeting, that RNY Power allocations be awarded to the small businesses and/or not-for-profit applicants listed in Exhibit '5c i-1-C.' These applicants have committed to retain or create jobs in New York State and make capital investments to the extent indicated in Exhibit '5c i-1-C' in exchange for the recommended RNY Power allocations as described in Exhibit '5 ci-1-C.' The RNY Power allocations identified in Exhibit '5c i-1-C' are recommended for a term of 7 years except as otherwise indicated.

Staff recommends that the Trustees accept EDPAB's recommendations and award RNY Power allocations to each of the not-for-profit entities and/or small businesses listed on Exhibit '5c i-1-C' in the amounts indicated.

In accordance with Chapter 60, if EDPAB's recommendation to award RNY Power allocations to the small businesses and/or not-for-profit applicants listed in Exhibit '5c i-C' is accepted, the 100 MW block of power will be close to fully allocated. Accordingly, a waiting list has been established for small businesses and not-for-profit applicants that are potentially eligible to be awarded RNY Power allocations when additional power becomes available.

4. EDPAB – Applicants Not Eligible – Informational Item

At its meeting on December 9, 2019, EDPAB determined that the applicant listed on Exhibit '5c i-1-D' is not eligible to receive an RNY Power allocation for the reason specified on Exhibit 'D.' No action by the Trustees is required on this application.

5. EDPAB – Applicants Not Recommended for RNY Power – Informational Item

At its meeting on December 9, 2019, EDPAB determined not to recommend the applicants listed on Exhibit '5c i-1-E' for an RNY Power allocation for the reasons specified on Exhibit '5c i-1-E.' No action by the Trustees is required on these applications.

6. EDPAB –Termination of Application/Review Process– Informational Item

At its meeting on December 9, 2019, EDPAB terminated the application review process for the applicants listed on Exhibit '5c i-1-F' for the reasons listed on Exhibit '5c i-1-F.' No action by the Trustees is required on this matter. In the past, some applicants whose applications were terminated in these circumstances have decided to refile and advance a more complete RNY Power application for consideration.

RECOMMENDATION

The Senior Vice President – Clean Energy Solutions recommends that the Trustees: (1) award the allocations of RNY Power for retention purposes to the businesses listed in Exhibit '5c i-1-A' as indicated therein; (2) award the allocations of RNY Power for expansion purposes to the businesses listed in Exhibit '5c i-1-B' as indicated therein; and (3) award the allocations of RNY Power for the small business and/or not-for-profit applicants identified in Exhibit '5c i-1-C' for retention and/or expansion purposes as indicated therein.

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 of Clean Energy Solutions, provided highlights of staff's recommendation to the Board.

On motion made by Vice Chair Nicandri and seconded by Trustee Trainor, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

WHEREAS, the Economic Development Power Allocation Board (“EDPAB”) has recommended that the Authority’s Trustees award Recharge New York (“RNY”) Power allocations for retention purposes to the applicants listed in Exhibit “5c i-1-A” in the amounts indicated; and

WHEREAS, EDPAB has recommended that the Authority’s Trustees award RNY Power allocations for expansion purposes to the applicants listed in Exhibit “5c i-1-B” in the amounts indicated; and

WHEREAS, EDPAB has recommended that the Authority’s Trustees award RNY Power allocations for retention and expansion purposes to the small businesses and/or not-for-profit applicants listed in Exhibit “5c i-1-C” in the amounts indicated;

NOW THEREFORE BE IT RESOLVED, That upon considering the foregoing and the information contained in the foregoing report of the President and Chief Executive Officer and the accompanying exhibits, the Trustees hereby:

- (1) award allocations of RNY Power for retention purposes to the applicants listed on Exhibit “5c i-1-A” in the amounts indicated;**
- (2) award allocations of RNY Power for expansion purposes to the applicants listed on Exhibit “5c i-1-B” in the amounts indicated; and**
- (3) award allocations of RNY Power for expansion and/or retention purposes to the small businesses and/or not-for-profit applicants listed on Exhibit “5c i-1-C” in the amounts indicated; and be it further**

RESOLVED, That the Chief Commercial Officer – Energy Solutions, or such official’s designee, hereby is authorized on behalf of the Authority to provide for final terms and conditions that will be applicable to the foregoing allocations and/or projects, including without limitation progress milestones and provisions for the expiration of any allocation in the event that such milestones are not met; 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, 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.

2. Recharge New York Power – Allocation Extensions and Modifications

The President and Chief Executive Officer submitted the following report:

“SUMMARY

The Trustees are requested to authorize the extension of each of the existing 3 allocations of Recharge New York (‘RNY’) Power (‘Allocation’ or collectively ‘Allocations’) awarded to the businesses listed in Exhibit ‘5c i-2-A’ as described below for a term of 7 years, to commence on the expiration of each such Allocation, or in the Authority’s discretion, on a date to be agreed upon by the Authority and the customer for a term not to exceed 7 years (collectively, the ‘Extended Term’), subject to the following conditions:

- a) The sale of any Allocation extended as proposed herein will be governed by the revised form of RNY Power contract that was approved by the Trustees on March 26, 2019, and existing Authority Service Tariff RNY-1.
- b) A customer whose Allocation would be extended would have to agree to provide supplemental commitments for, among other things, jobs and capital investments, as it has in its current RNY Power agreement(s) with the Authority (collectively, ‘Current RNY Power Agreement’) for the length of any Extended Term, through the incorporation of such supplemental commitments in the proposed final contract that is executed by the parties. With respect to capital investments, the vast majority of RNY Power customers (i.e., those who do not have project/expansion capital investment commitments) would be expected to meet a minimum capital investment commitment.
- c) Each of the customers identified in Exhibit ‘5c i-2-A’ is in compliance with its contractual obligations to the Authority under its Current RNY Power Agreement.

The Economic Development Power Allocation Board (‘EDPAB’), at its meeting held on December 9, 2019, recommended to the Trustees that each of the Allocations listed on Exhibit ‘5c i-2-A’ be extended for 7 years as further described herein.

The Trustees are further requested to approve modifications related to previously- approved RNY Power allocations for the customers listed in Exhibit ‘5c i-2-B.’ The Allocations for these customers were conditionally extended on the basis of the commitments made in their existing RNY power sale contracts with the Authority or an extension application. Since that time, the Authority has received additional information relating to these customers’ circumstances and has conferred with the customers concerning such issues as power, employment and capital investment commitments, and/or other relevant matters. Based on this information, staff is requesting that the Trustees modify the allocations and/or supplemental commitments for the customers as described in Exhibit ‘5c i-2-B’ for the reasons detailed in Exhibit ‘5c i-2-B.’ EDPAB, at its meeting held on December 9, 2019, recommended to the Trustees that the modifications listed on Exhibit ‘5c i-2-B’ be approved.

BACKGROUND

On April 14, 2011, Governor Andrew M. Cuomo signed into law the RNY Power Program as part of Chapter 60 (Part CC) of the Laws of 2011. The RNY Power Program is codified primarily in Economic Development Law (‘EDL’) §188-a and Public Authorities Law (‘PAL’) §1005(13-a) (the ‘Statutes’). The program makes available 910 megawatts (‘MW’) of ‘RNY Power,’ 50% of which will be provided by the Authority’s resources and 50% of which will be procured by the Authority from other sources. RNY Power contracts can be for a term of up to 7 years in exchange for job and capital investment commitments. RNY Power is available to businesses and not-for-profit corporations for job retention and business expansion and attraction.

'Eligible applicant' is defined by statute to mean an eligible business, eligible small business, or eligible not-for-profit corporation, however, an eligible applicant shall not include retail businesses as defined by EDPAB, including, without limitation, sports venues, gaming or entertainment-related establishments or places of overnight accommodations.

RNY Power allocation awards are comprised of 50% hydropower and 50% Authority-procured market power. Prior to entering into a contract with an eligible applicant for the sale of RNY power, and prior to the provision of electric service relating to the RNY power allocation, the Authority shall offer each eligible applicant the option to decline to purchase the RNY market power component of such allocation. If an eligible applicant declines to purchase the RNY market power component, the Authority has no responsibility for supplying such market power to the eligible applicant.

Under applicable law, applications for RNY Power are first considered by EDPAB. EDPAB is authorized to recommend applicants to the Authority's Trustees that it believes should receive an award of RNY Power based on applicable statutory criteria and other pertinent considerations. The statutory criteria are listed in Exhibit '5c i-2-C' to this report. An allocation recommended by EDPAB qualifies the subject applicant to enter into a contract with the Authority for the purchase of the RNY Power if the Authority makes an allocation award.

At their meeting held on October 2, 2018, the Trustees authorized extensions for 180 RNY Power Allocations. An additional 62 RNY Power Allocations were approved for extension by the Trustees on December 11, 2018. In 2019, the Trustees authorized extensions for 72 RNY Power Allocations on March 26, 2019 and 28 RNY Power Allocations on July 30, 2019. Most recently, on September 25, 2019, the Trustees approved the extension of an additional 4 RNY Power Allocations.

EDPAB, at its meeting held on December 9, 2019, recommended that the Trustees approve extensions for the 3 RNY Power allocations that are now before the Trustees. In addition, EDPAB recommended that the Trustees approve the modifications related to previously extended RNY Power allocations as described in Exhibit '5c i-2-B' for the reasons discussed below and in Exhibit '5c i-2-B.'

DISCUSSION

1. Extension of Existing Allocations

For the current round of recommendations, Authority staff has reviewed applications from 3 RNY Power customers listed on Exhibit '5c i-2-A' that are seeking extensions, and a copy of each application has been made available to the Board. Staff's review has consisted of a review on a customer-specific basis of such issues as the amount of each Allocation that would be extended, the supplemental commitments that these customers have made under their Current RNY Power Agreement and are prepared to make as consideration for an extension, and the customer's compliance status under its Current RNY Power Agreement, including its compliance with supplemental commitments for jobs and capital investments. The following are staff's recommendations regarding these customers.

Staff is recommending that the full Allocations of Alken Industries Inc., API Heat Transfer Inc., and XLI Manufacturing, LLC be extended as indicated in Exhibit '5c i-2-A.'

In summary, the businesses listed on Exhibit '5c i-2-A,' which are located throughout the State, bring valuable benefits to the State. In total, the Allocations listed in Exhibit '5c i-2-A' are supporting the retention of 314 jobs and \$3 million in capital investments throughout New York State, and the Authority will require customers to commit to the same or substantially similar supplemental commitments for jobs and capital investments that are summarized in Exhibit '5c i-2-A' for the Extended Term.

At its meeting held on December 9, 2019, EDPAB recommended to the Trustees that each of the Allocations listed on Exhibit '5c i-2-A' be extended for 7 years as described above. As part of its recommendation that these Allocations be extended, EDPAB, consistent with provisions of applicable Statutes, also recommended that the contract for the sale of the Allocations contain:

- (1) provisions for effective periodic audits of the recipient of an allocation for the purpose of determining contract and program compliance, and for the partial or complete withdrawal of an allocation if the recipient fails to maintain commitments, relating to such things as employment levels, power utilization, capital investments, and/or energy efficiency measures;
- (2) requirements for an agreement by the recipient of an allocation undertake at its own expense an energy audit of its facilities at which the allocation is consumed modified by the Authority on a showing of good cause by the recipient, and that the recipient provide the Authority with a copy of any such audit or a report describing the results of such audit;
- (3) a requirement for an agreement by the recipient of an allocation to make its facilities available at reasonable times and intervals for energy audits and related assessments that the Authority desires to perform; and
- (4) a recommendation shall require that if the actual metered load at the facility where the allocation is utilized is less than the allocation, such allocation will be reduced accordingly.

Based on the foregoing discussion, staff recommends that the Trustees extend the Allocations listed on Exhibit '5c i-2-A' as described above and in Exhibit '5c i-2-A' subject to the following conditions:

- (a) The sale of any Allocation extended as proposed herein will be governed by the revised RNY Power contract form that was approved by the Trustees on March 26, 2019, and Authority Service Tariff RNY-1.
- (b) In order to receive an extension of its Allocation, the customer must agree, for the Extended Term, to provide the supplemental commitments for jobs and capital investments that are the same or substantially similar to those that are summarized generally in Exhibit '5c i-2-A' (subject to adjustments described above), through the incorporation of such supplemental commitments in the final contract that is executed by the parties. With respect to capital investments, RNY Power customers who do not have current project/expansion capital investment commitments would be expected to meet a minimum capital investment commitment which may be satisfied through capital expenditures made over a five-year period.
- (c) The customer is in compliance with its contractual obligations to the Authority under its Current RNY Power Agreement.

Staff believes that an extension of each Allocation listed on Exhibit '5c i-2-A' in the manner described is appropriate and is consistent with the statutory criteria that are used to evaluate applications for an award of RNY Power which are listed in Exhibit '5c i-2-C.' In addition, the terms and conditions in the revised RNY Power contract form that was previously approved by the Trustees on March 26, 2019 are consistent with the terms and conditions recommended by EDPAB.

2. Modifications Relating to Previously-Extended Allocations

At its meeting held on December 9, 2019, EDPAB recommended that the Trustees approve modifications relating to the previously extended RNY Power allocations listed on Exhibit '5c i-2-B' for the reasons described in Exhibit '5c i-2-B.' The following is a summary of the circumstances pertaining to each customer that underlie the proposed modifications.

- The extension application of Kaleida Health incorrectly reported the company's proposed capital investment commitment. Staff is requesting a modification of the capital investment commitment for this company from \$94,529,167 to \$75,000,000 in order to state the correct investment commitment.

- Homogeneous Metals, Inc. was previously approved for an Extended Allocation. Due to a processing error related to a previously approved expansion allocation to the company, the amount of the allocation approved was 340 kW but should have been 1,150 kW. Accordingly, staff is recommending that amount of the company's extended allocation be revised to 1,150 kW.

Staff believes that the modifications listed on Exhibit '5c i-2-B' are appropriate and/or otherwise consistent with the statutory criteria that are used to evaluate applications for an award of RNY Power, which are listed in Exhibit '5c i-2-C.' For these reasons, staff recommends that the Trustees approve the modifications listed on Exhibit '5c i-2-B.'

RECOMMENDATION

The Senior Vice President – Clean Energy Solutions recommends that the Trustees accept the recommendations of the Economic Development Power Allocation Board ('EDPAB'), and authorize the extension of each of the existing 3 Allocations of Recharge New York ('RNY') Power in the manner described above for the customers listed on Exhibit '5c i-2-A' for a term of 7 years to commence on the expiration of the Allocation, or commencing on a date to be agreed upon by the parties for a term not to exceed 7 years, subject to the following conditions:

- (a) The sale of any Allocation extended as proposed herein will be governed by the revised RNY Power contract form that was approved by the Trustees on March 26, 2019, and Authority Service Tariff RNY-1.
- (b) In order to receive an extension of its Allocation, the customer must agree, for the Extended Term, to provide supplemental commitments for jobs and capital investment that are the same or substantially similar to those that are summarized in Exhibit '5c i-2-A' (subject to adjustments described above), through the incorporation of such supplemental commitments in the final contract that is executed by the parties. With respect to capital investments, RNY Power customers that do not have ongoing project/expansion capital investment commitments would be required to meet a minimum capital investment commitment which may be satisfied through capital expenditures made over a five-year period.
- (c) The customer is in compliance with its contractual obligations to the Authority under its Current RNY Power Agreement.

In addition, the Senior Vice President – Clean Energy Solutions recommends that the Trustees accept the recommendation of EDPAB and approve the modifications to the previously extended allocations and/or supplemental commitments described in Exhibit '5c i-2-B' for the reasons discussed above.

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 of Clean Energy Solutions, provided highlights of staff's recommendation to the Board.

On motion made by Trustee Balboni and seconded by Trustee Trainor, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That the Trustees hereby accept the recommendations of the Economic Development Power Allocation Board and approve the extension of each of the existing 3 Recharge New York ("RNY") Power allocations ("Allocation" or collectively "Allocations") previously awarded to the customers listed in Exhibit "5c i-2-A" in the manner described in the accompanying report of the President and Chief Executive Officer ("Report") a term of 7

years, to commence on (1) the expiration of the term of the Allocation, or (2) in the Authority's discretion, commencing on a date to be agreed upon by the Authority and the customer for a term not to exceed 7 years (collectively, the "Extended Term"), subject to the following conditions:

- (a) the sale of the Allocations as extended hereunder shall be made pursuant to the revised contract form approved by the Board on March 26, 2019, and Authority Service Tariff RNY-1;
- (b) in order to receive an extension of its Allocation, the customer agrees to provide the supplemental commitments for jobs, capital investment and power utilization that are the same or determined by the Authority to be substantially similar to those contained in Exhibit "5c i-2-A" (subject to adjustments described above) for the Extended Term, through the incorporation of such supplemental commitments in the final contract that is executed by the parties, and RNY Power customers who do not have an ongoing project/expansion capital investment commitment shall meet a minimum capital investment commitment which may be satisfied through capital expenditures made over a five-year period; and
- (c) that customer is in compliance with its contractual obligations to the Authority under its current RNY Power agreement(s) with the Authority; and be it further

RESOLVED, That the Trustees hereby accept the recommendation of the Economic Development Power Allocation Board and approve the modifications/adjustments to the previously extended allocations and/or supplemental commitments described in Exhibit "5c i-2-B" for the reasons indicated in the report and Exhibit "5c i-2-B"; 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, 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.

3. Replacement Power Allocation

The President and Chief Executive Officer submitted the following report:

"SUMMARY"

The Trustees are requested to approve an allocation of 1,000 kilowatts ('kW') of Replacement Power ('RP') to Unifrax I LLC ('Unifrax') which is proposing to add a new manufacturing line at its existing Pirson Parkway facility in Tonawanda (Erie County). The project is described in further detail below and in Exhibit '5c i-3-A.' The term of the allocation would be ten years. The allocation would support capital investment of at least \$36 million and the creation of at least 10 new, permanent, full time jobs at the facility that would receive the allocation.

BACKGROUND

Under Public Authorities Law ('PAL') §1005(13), the New York Power Authority ('NYPA' or 'Authority') may contract to allocate 250 megawatts ('MW') of firm hydroelectric power as Expansion Power ('EP') and up to 445 MW of RP to businesses in the State located within 30 miles of the Niagara Power Project, provided that the amount of power allocated to businesses in Chautauqua County on January 1, 1987 shall continue to be allocated in such county.

Each application for an allocation of EP and RP are evaluated under criteria that include but need not be limited to, those set forth in PAL §1005(13)(a), which details general eligibility requirements. Among the factors to be considered when evaluating a request for an allocation of hydropower are the number of jobs created as a result of the allocation; the business' long-term commitment to the region as evidenced by the current and/or planned capital investment in the business' facilities in the region; the ratio of the number of jobs to be created to the amount of power requested; the types of jobs to be created, as measured by wage and benefit levels, security and stability of employment, and the type and cost of buildings, equipment and facilities to be constructed, enlarged or installed.

The Authority works closely with business associations, local distribution companies and economic development entities to gauge support for the projects that would be supported with allocations of Authority hydropower. Discussions routinely occur with National Grid, Empire State Development, Invest Buffalo Niagara, the Niagara County Center for Economic Development, and the Erie County Industrial Development Agency to coordinate other economic development incentives that may help bring economic development to New York State. Staff confers with these entities to help maximize the value of hydropower to improve the economy of Western New York and the State of New York. Each organization has expressed support for today's recommended RP allocation.

At this time, 67,610 kW of unallocated EP and 90,421 kW of unallocated RP is available to be awarded to businesses under the criteria set forth in PAL §1005(13)(a).

DISCUSSION

Unifrax, which has its U.S. headquarters at 600 Riverwalk Parkway in Tonawanda, is a manufacturer of ceramic fiber insulation products for the automotive industry. A longtime NYPA customer, Unifrax employs 397 at four facilities located in New York State, including its headquarters and research facility, fiber plant, and polycrystalline wool plant in Tonawanda, and its Fibermax plant in Sanborn, Niagara County. It operates 31 manufacturing facilities worldwide.

Unifrax currently has a total of 2,400 kW of RP allocations supporting operations at its Pirson Parkway facility in Tonawanda with an employment commitment of 45 jobs. Its most recent allocation of 1,000 kW was approved by the Trustees at their August 7, 2018 meeting. This allocation was associated with the addition of a new manufacturing line (known as the Line #6 Project) at the Pirson Parkway facility.

Unifrax's expansion project (the 'Project'), would involve a capital expenditure of at least \$36 million and consist of two phases. The first phase would consist of site modifications and new building construction. An existing building of 83,000 square feet would be enlarged by an additional 90,000 square feet. Current parking, roadways, truck turnarounds, and storm water drainage systems would need to be modified to satisfy operational and regulatory needs. Collectively, the first phase of the Project would represent a capital investment expenditure of at least \$7.5 million. The second phase of the project would consist of the procurement and installation of various equipment, including compressors, ovens, and processing equipment, resulting in a capital investment expenditure of at least \$28.5 million.

Unifrax plans to begin operations associated with the Project in July 2020. The new Line #7 would alleviate capacity constraints associated with current lines and allow the company to meet anticipated future customer demand.

The company would also commit to the creation of 10 new, permanent, full-time jobs that would be located at the project site in Tonawanda. The average compensation/benefits are estimated to be over \$67,000 per job.

The company submitted an application requesting 2,500 kW of hydropower in connection with the Project. Staff recommends an allocation of RP in the amount of 1,000 kW for a term of ten years.

The job creation ratio for the proposed allocation of 1,000 kW is 10 new jobs per MW. This ratio is below the historic average of 65 new jobs per MW based on allocations made during the past fifteen years. The total project investment of at least \$36 million would result in a capital investment ratio of \$36 million per MW. This ratio is above the fifteen-year historic average of \$17 million per MW.

CONTRACT INFORMATION

If approved, the new allocation would be added to an existing contract relating to the sale of Authority hydropower for use at the facility. Authority Service Tariff No. WNY-2 ('ST WNY-2') would also apply to the sale of the allocation. The following is a summary of the matters addressed in the contract and ST WNY-2:

- Base rates for demand and energy, an annual adjustment factor, and a minimum monthly charge which helps the Authority cover fixed costs of serving a customer even when the customer does not utilize the allocation in a billing period.
- Direct billing of all production charges (i.e., demand and energy) as well as all New York Independent System Operator, Inc. charges, taxes and any other required assessments.
- The provision of substitute energy in the event of hydropower curtailments caused by adverse water conditions that impact power project operations.
- Basic requirements for customer metering.
- Early outreach to the customer concerning allocation extension initiatives by the Authority.
- Requirements for energy audits at the facility receiving the allocation. The customer would have the option to satisfy the audit requirement through either a traditional physical audit, or a virtual audit using the Authority's New York Energy Manager which is expected to provide considerable savings for customers who select it.
- Periodic communications to customers about energy-related projects, programs and services offered by the Authority.

- Compliance provisions that allow the Authority to reduce a customer's allocation for a failure to meet supplemental commitments, with an opportunity for the customer to present a proposed plan with actionable milestones to cure deficiencies.
- The collection of a Zero Emission Credit Charge and Monthly Renewable Energy Credit Charge to allow the Authority to recover costs it incurs relating to its purchase of Zero Emission Credits and Renewable Energy Credits attributable to the customer's load.

RECOMMENDATION

The Senior Vice President – Clean Energy Solutions, recommends that the Trustees approve an allocation of 1,000 kW of Replacement Power to Unifrax as described herein and in Exhibit '5c i-3-A' for a term of ten years.

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 of Clean Energy Solutions, provided highlights of staff's recommendation to the Board.

On motion made by Trustee Trainor and seconded by Trustee McKibben, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That an allocation of 1,000 kilowatts ("kW") of Replacement Power ("RP") be awarded to Unifrax I LLC ("Unifrax"), for a term of 10 years as detailed in the foregoing report of the President and Chief Executive Officer and Exhibit "5c i-3-A," be and hereby is approved, subject to rates previously approved by the Trustees; and be it further

RESOLVED, That the Chairman, the Vice Chair, 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, 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.

4. Recommendations for Awards of Fund Benefits from the Western New York Economic Development Fund by the Western New York Power Proceeds Allocation Board

The President and Chief Executive Officer submitted the following report:

"SUMMARY

The Trustees are requested to: (1) accept the recommendations of the Western New York Power Proceeds Allocation Board (the 'Allocation Board' or 'WNYPPAB') and make an award of Fund Benefits from the Western New York Economic Development Fund to the two eligible applicants listed in Exhibits '5c i-4-A', '5c i-4-A-1' and '5c i-4-A-2' in the amounts indicated on the Exhibits for the reasons discussed below and in the Exhibits; and (2) authorize the other actions described herein with respect to such applicants and recommended awards.

BACKGROUND

1. Western New York Power Proceeds Allocation Act

On March 30, 2012, Governor Cuomo signed into law the Western New York Power Proceeds Allocation Act (the 'Act'). The Act provides for the creation, by the Authority, of the Western New York Economic Development Fund. The Fund consists of the aggregate excess of revenues received by the Authority from the sale of Expansion Power ('EP') and Replacement Power ('RP') produced at the Niagara Power Project that was sold in the wholesale energy market over what revenues would have been received had such energy been sold on a firm basis to an eligible EP or RP customer under the applicable tariff or contract.

Under the Act, an 'eligible applicant' is a private business, including a not-for-profit corporation. 'Eligible projects' is defined to mean 'economic development projects by eligible applicants that are physically located within the State of New York within a thirty-mile radius of the Niagara power project located in Lewiston, New York that will support the growth of business in the state and thereby lead to the creation or maintenance of jobs and tax revenues for the state and local governments.' Eligible projects include, for example, capital investments in buildings, equipment, and associated infrastructure owned by an eligible applicant for fund benefits; transportation projects under state or federally approved plans; the acquisition of land needed for infrastructure; research and development where the results of such research and development will directly benefit New York state; support for tourism and marketing and advertising efforts for western New York state tourism and business; and energy-related projects.

Eligible projects do not include public interest advertising or advocacy; lobbying; the support or opposition of any candidate for public office; the support or opposition to any public issue; legal fees related to litigation of any kind; expenses related to administrative proceedings before state or local agencies; or retail businesses as defined by the board, including without limitation, sports venues, gaming and gambling or entertainment-related establishments, residential properties, or places of overnight accommodation.

Fund Benefits have been provided to successful eligible applicants in the form of grants. Generally, Fund Benefits are disbursed as reimbursement for expenses incurred by an Eligible Applicant for an Eligible Project. Occasionally, Fund Benefits are disbursed in advance for proposed eligible expenditures to be incurred by the Eligible Applicant for an Eligible Project when NYPA determines this approach is appropriate for a project, NYPA has authorized the approach in advance, and proposed expenses can be appropriately documented.

At least 15 percent of Fund Benefits must be dedicated to eligible projects which are 'energy-related projects, programs and services,' which is 'energy efficiency projects and services, clean energy technology projects and services, and high performance and sustainable building programs and services,

and the construction, installation and/or operation of facilities or equipment done in connection with any such projects, programs or services.'

Allocations of Fund Benefits may only be made on the basis of moneys that have been deposited in the Fund. No award may encumber future funds that have been received but not deposited in the Fund.

2. Western New York Power Proceeds Allocation Board

Under the Act, the Allocation Board is charged with soliciting applications for Fund Benefits, reviewing applications, making eligibility determinations, and evaluating the merits of applications for Fund Benefits. The Allocation Board uses the criteria applicable to EP, RP and PP, and for revitalization of industry as provided in Public Authorities Law §1005. Additionally, the Allocation Board is authorized to consider the extent to which an award of Fund Benefits is consistent with the strategies and priorities of the Regional Economic Development Council having responsibility for the region in which an eligible project is proposed. A copy of these criteria (collectively, 'Program Criteria'), adapted from the Allocation Board's 'Procedures for the Review of Applications for Fund Benefits,' is attached as Exhibit '5c i-4-B.'

The Allocation Board met on March 4, 2013 and, in accordance with the Act, adopted by-laws, operating procedures, guidelines related to the application, and a form of application. At that time, the Allocation Board defined 'retail business' to mean a business that is primarily used in making retail sales of goods or services to customers who personally visit such facilities to obtain goods or services.

Under the Act, a recommendation for Fund Benefits by the Allocation Board is a prerequisite to an award of Fund Benefits by the Authority, and the Act authorizes the Authority to award Fund Benefits to an applicant upon a recommendation of the Allocation Board. Upon a showing of good cause, the Authority has discretion as to whether to adopt the Allocation Board's recommendation, or to award benefits in a different amount or on different terms and conditions than proposed by the Allocation Board. In addition, the Authority is authorized to include within the contract covering an award ('Award Contract') such other terms and conditions the Authority deems appropriate.

3. Application Process

In an effort to provide for the efficient review of applications and disbursement of Fund Benefits, the Allocation Board established a schedule of dates through the end of 2019 on which the Allocation Board would meet to consider applications. At this time, applications are being accepted on a rolling basis. In addition, the application process was promoted through a media release and with assistance from state and local entities, including the Western New York and Finger Lakes Regional Economic Development Councils, the Empire State Development Corporation and other local and regional economic development organizations within the State. A webpage was created that is hosted on WWW.NYPA.GOV/WNYPPAB with application instructions, a link to the approved application form and other program details including a contact phone number and email address staffed by NYPA.

DISCUSSION

At its October 2, 2019 meeting, the Allocation Board considered applications from (1) Ashdan Screw Machine Products, Inc. ('Ashdan'), seeking \$12,500 in Fund Benefits to add machinery and equipment at its Lockport, New York location, and (2) Buffalo Arts and Technology Center, Inc. ('BATC'), seeking \$38,768 to add workforce development training programs at its Buffalo, NY location.

As detailed in Exhibit '5c i-4-A-1', the Ashdan application seeks Fund Benefits to purchase specialized CNC machinery that would allow the company to produce small, high volume, high precision parts and take on more business with an existing customer. Ashdan would spend approximately \$165,000 on its project and create one new position over the next three years.

As detailed in Exhibit '5c i-4-A-2', the BATC application seeks Fund Benefits to support three years of programming costs related to establishing sterile processing and distribution and phlebotomy training curriculums, which would be offered to underrepresented and unemployed adults in the City of Buffalo. The total amount to be expended on the project by the BATC is approximately \$194,000.

The Allocation Board's staff analyzed these applications and made a recommendation to the Allocation Board based on eligibility requirements and Program Criteria. Copies of the recommendation memoranda provided to the Allocation Board for these projects are attached as Exhibits '5c i-4-A-1' and '5c i-4-A-2'. The applications have also been made available to the Trustees for review.

The Allocation Board has recommended that these applicants receive a Fund Benefit award in the amount indicated on Exhibits '5c i-4-A', '5c i-4-A-1' and '5c i-4-A-2'. Given the nascent stage of the proposed projects, it was not possible to recommend the terms and conditions that would be applicable to these awards and memorialized in an Award Contract between the Authority and successful applicants.

If these applicants receive a Fund Benefit award, it is anticipated that Authority staff would negotiate final terms and conditions with the applicants after receipt of more detailed information concerning the project and proposed schedules. An Award Contract may include scheduled payments keyed to commitment milestones, such as employment creation and retention. In addition, staff anticipates that an Award Contract will contain provisions for periodic audits of the successful applicants for the purpose of determining contract and program compliance and, where appropriate, terms providing for the partial or complete recapture of Fund Benefits disbursements if an applicant fails to maintain agreed-upon commitments, relating to, among other things, employment levels and/or project element due dates.

RECOMMENDATION

The Senior Vice President – Clean Energy Solutions recommends that:

- (1) the Trustees accept the recommendations of the Allocation Board and make an award of Fund Benefits to the applicants in the amounts identified in Exhibits '5c i-4-A', '5c i-4-A-1' and '5c i-4-A-2', conditioned upon an agreement to be negotiated with the applicants on the final terms and conditions that would be applicable to the award to be contained in an Award Contract approved by the President and Chief Executive Officer, or his designee, and approved by the Executive Vice President and General Counsel, or his designee, as to form;
- (2) the Chief Commercial Officer – Energy Solutions, or such official's designee, be authorized to negotiate with the applicants concerning such final terms and conditions that will be applicable to the awards; and
- (3) the Chief Commercial Officer – Energy Solutions, or such official's designee, be authorized to execute on behalf of the Authority an Award Contract for the awards listed on Exhibit '5c i-4-A' subject to the foregoing conditions.

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

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

On motion made by Trustee McKibben and seconded by Trustee Trainor, the following resolution, as submitted by the President and Chief Executive Officer, was adopted with Chairman Koelmel recused from the vote as it relates to Buffalo Arts and Technology Center.

WHEREAS, The Western New York Power Proceeds Allocation Board (“Allocation Board”) has recommended that the Authority make an award of Fund Benefits from the Western New York Economic Development Fund (“Fund”) to the eligible applicants listed in Exhibit “5c i-4-A” in the amounts indicated;

NOW THEREFORE BE IT RESOLVED, That the Authority hereby accepts the recommendation of the Allocation Board and authorizes an award of Fund Benefits to the applicants listed in Exhibits “5c i-4-A,” “5c i-4-A-1” and “5c i-4-A-2” in the amounts indicated for the reasons set forth in the foregoing report and the exhibits and other information referred to therein, conditioned upon an agreement between the Authority and the applicants on the final terms and conditions that would be applicable to the award and set forth in a written award contract (“Award Contract”) between the Authority and the applicants, approved by the President and Chief Executive Officer, or his designee, and approved by the Executive Vice President and General Counsel or his designee, as to form; and be it further

RESOLVED, That the Chief Commercial Officer – Energy Solutions, or such official’s designee, is authorized to negotiate with the applicants concerning such final terms and conditions that will be applicable to the award; and be it further

RESOLVED, That the Chief Commercial Officer – Energy Solutions, or such official’s designee, is authorized to execute on behalf of the Authority an Award Contract for the awards listed on Exhibit “5c i-4-A” subject to the foregoing conditions; 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, 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.

5. Award of Fund Benefits from the Northern New York Economic Development Fund Recommended by the Northern New York Power Proceeds Allocation Board

The President and Chief Executive Officer submitted the following report:

“SUMMARY

The Trustees are requested to accept the recommendations of the Northern New York Power Proceeds Allocation Board (the ‘Allocation Board’) and make awards of Fund Benefits from the Northern New York Economic Development Fund to Structural Wood Corporation (‘SWC’ or ‘Applicant’) and authorize the other actions described herein with respect to the applicant and recommended award. The Applicant’s project and the amount of the award being recommended is summarized in Exhibit ‘5c i-5-A’ and discussed in further detail below and in Exhibit ‘5c i-5-A-1.’

BACKGROUND

1. Northern New York Power Proceeds Allocation Act

On December 29, 2014, Governor Cuomo signed into law the Northern New York Power Proceeds Allocation Act (the ‘Act’). The Act adds provisions to two chapters of consolidated law, the Economic Development Law (‘EDL’), and the Public Authorities Law within the Power Authority Act, the enabling statute of the New York Power Authority (‘NYPA’) (collectively, the ‘Statutes’). As discussed in more detail below, the Act creates a program, administered by NYPA and the Board, to support economic development in Northern New York (‘Program’). Under the Program, financial assistance known as ‘fund benefits’ may be awarded to ‘eligible applicants’ for ‘eligible projects’ based on criteria set forth in the Statutes.

Under the Act, an ‘eligible applicant’ is a private business, including a not-for-profit corporation that is a private business. ‘Eligible projects’ is defined to mean ‘economic development projects’ that are or would be physically located within St. Lawrence County that will support the growth of business in St. Lawrence County and thereby lead to the creation or maintenance of jobs and tax revenues for the state and local governments. ‘Eligible projects’ include, for example, capital investments in buildings, equipment, and associated infrastructure owned by an eligible applicant; transportation projects under state or federally approved plans; the acquisition of land needed for infrastructure; research and development where the results of such research and development will directly benefit New York State; support for tourism and marketing and advertising efforts for St. Lawrence County tourism and business; and energy-related projects.

Eligible projects do not include, and fund benefits may not be used for, public interest advertising or advocacy; lobbying; the support or opposition of any candidate for public office; the support or opposition to any public issue; legal fees related to litigation of any kind; expenses related to administrative proceedings before state or local agencies; or retail businesses as defined by the board, including without limitation, sports venues, gaming and gambling or entertainment-related establishments, residential properties, or places of overnight accommodation.

NYPA and the Town of Massena Electric Department are parties to a contract that provides for NYPA’s sale of up to 20 megawatts (‘MW’) of hydropower known as ‘St. Lawrence County Economic Development Power’ (‘SLCEDP’) to the Town. As detailed in the Statutes, NYPA is authorized to sell unallocated SLCEDP into the market to generate revenue for the Program. The Statutes provide that NYPA will deposit proceeds from such sales into the Fund no less than quarterly.

At least 15% percent of the Fund is dedicated to eligible projects which are ‘energy-related projects, programs and services,’ which are defined as ‘energy efficiency projects and services, clean energy technology projects and services, and high performance and sustainable building programs and

services, and the construction, installation and/or operation of facilities or equipment done in connection with any such projects, programs or services.’

Monies from the Fund – known as ‘fund benefits’ – are paid to awardees in the form of grants, and staff expects that in most cases fund benefits will be disbursed as reimbursement for expenses incurred by an awardee. Allocations of fund benefits may only be made on the basis of monies that have been deposited in the Fund. No award may encumber funds that have not been deposited in the Fund.

2. Northern New York Power Proceeds Allocation Board

Under the Act, the Allocation Board’s primary responsibilities regarding applications for fund benefits under the Program are to (i) administer the application process, (ii) make determinations relating to eligibility, and (iii) where an applicant and project are eligible, evaluate applications against the statutory criteria and make a recommendation to the NYPA Board of Trustees on whether an applicant should be awarded fund benefits. The Allocation Board uses the criteria applicable to EP, RP and PP allocations, and for revitalization of industry, provided for in Public Authorities Law §1005.

Additionally, the Allocation Board is authorized to consider the extent to which an award of fund benefits is consistent with the strategies and priorities of the North Country Regional Economic Development Council, which covers the region in which an eligible project may be proposed.

At its meeting on January 25, 2017, the Allocation Board, in accordance with the Act, adopted by-laws, operating procedures, guidelines related to the application, and a form of application. A copy of the relevant criteria (collectively, ‘Program Criteria’), adapted from the Allocation Board’s ‘Procedures for the Review of Applications for Fund Benefits,’ is attached as Exhibit ‘5c i-5-B’ to this report.

Under the Act, a recommendation for Fund Benefits by the Allocation Board is a prerequisite to an award of Fund Benefits by the Authority, and the Act authorizes the Authority to award Fund Benefits to an applicant upon a recommendation of the Allocation Board. Upon a showing of good cause, the Authority has discretion as to whether to adopt the Allocation Board’s recommendation, or to award benefits in a different amount or on different terms and conditions than proposed by the Allocation Board. In addition, the Authority is authorized to include within the contract covering an award (‘Award Contract’) such other terms and conditions the Authority deems appropriate.

3. Application Process

In an effort to provide for the efficient review of applications and disbursement of Fund Benefits, the Allocation Board established a schedule of dates through the end of 2019 on which the Allocation Board would meet to consider applications. At this time, applications are being accepted on a rolling basis. A webpage was created that is hosted on WWW.NYPA.GOV/NNYPPAB with application instructions, a link to the approved application form and other program details including a contact phone number and email address staffed by NYPA.

DISCUSSION

At its October 16, 2019 meeting, the Allocation Board considered an application from SWC seeking \$169,112 in Fund Benefits.

The Allocation Board’s staff analyzed the application and made recommendations to the Allocation Board based on eligibility requirements and Program Criteria. The Program Criteria are described in Exhibit ‘5c i-5-B.’ A copy of the recommendation memoranda provided to the Allocation Board for SWC is attached as Exhibit ‘5c i-5-A-1.’ The application has also been made available to the Trustees for review.

As detailed in Exhibit '5c i-5-A-1,' the SWC application seeks Fund Benefits to support a building acquisition and improvements, the purchase of machinery and equipment, and reimbursement of other costs and other improvements related to its proposed project to support an expansion that would increase production capacity and improve process flow. The applicant indicates that as part of the project it would create 7 full time positions over 7 years and spend approximately \$845,562 on this project. Included as part of the project is the installation of energy efficient equipment, such as heating and lighting upgrades. A Fund Benefits award would target the energy efficiency equipment, which would allow the Proceeds Program to access the component of the Fund that is reserved for energy-related projects, programs and services.

The Allocation Board has recommended the Applicant receive a Fund Benefit award in the amount indicated on Exhibit '5c i-5-A.' Given the nascent stage of the proposed project, it was not possible to make recommendations concerning the terms and conditions that would be applicable to the award and memorialized in an Award Contract between the Authority and the applicant.

If this Applicant receives a Fund Benefit award, it is anticipated that Authority staff would negotiate final terms and conditions with the applicant after receipt of more detailed information concerning the project and proposed schedules. Award Contracts may include scheduled payments keyed to commitment milestones, such as employment creation and retention. In addition, staff anticipates that Award Contracts will contain provisions for periodic audits of the successful applicants for the purpose of determining contract and program compliance and, where appropriate, terms providing for the partial or complete recapture of Fund Benefits disbursements if an applicant fails to maintain agreed-upon commitments.

RECOMMENDATION

The Senior Vice President – Clean Energy Solutions recommends that:

- (1) the Trustees accept the recommendation of the Allocation Board and make an award of Fund Benefits to Structural Wood Corporation in the amount recommended in Exhibits '5c i-5-A' and '5c i-5-A-1,' conditioned upon an agreement to be negotiated with the applicant on the final terms and conditions that would be applicable to the award to be contained in the Award Contract approved by the President and Chief Executive Officer, or his designee, and approved by the Executive Vice President and General Counsel, or his designee, as to form;
- (2) the Chief Commercial Officer – Energy Solutions, or such official's designee, be authorized to negotiate with the Applicant concerning such final terms and conditions that will be applicable to the award; and
- (3) the Chief Commercial Officer – Energy Solutions, or such official's designee, be authorized to execute on behalf of the Authority an Award Contract for the award listed on Exhibits '5c i-5-A' and '5c i-5-A-1' subject to the forgoing conditions.

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

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

On motion made by Vice Chair Nicandri and seconded by Trustee Trainor, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

WHEREAS, The Northern New York Power Proceeds Allocation Board ("Allocation Board") has recommended that the Authority make an award of Fund Benefits from the

Northern New York Economic Development Fund (“Fund”) to the eligible applicant, Structural Wood Corporation, listed in Exhibit “5c i-5-A” in the amount indicated in Exhibit “5c i-5-A”;

NOW THEREFORE BE IT RESOLVED, That the Authority hereby accepts the recommendation of the Allocation Board and authorizes an award of Fund Benefits to the applicant listed in Exhibits “5c i-5-A” and “5c i-5-A-1” in the amount indicated for the reasons set forth in the attached report and the exhibit and other information referred to therein, conditioned upon an agreement between the Authority and the applicant on the final terms and conditions that would be applicable to the award and set forth in a written award contract (“Award Contract”) between the Authority and each applicant, approved by the President and Chief Executive Officer, or his designee, and approved by the Executive Vice President and General Counsel or his designee, as to form; and be it further

RESOLVED, That the Chief Commercial Officer – Energy Solutions, or such official’s designee, is authorized to negotiate with the applicant concerning such final terms and conditions that will be applicable to the award; and be it further

RESOLVED, That the Chief Commercial Officer – Energy Solutions, or such official’s designee, is authorized to execute on behalf of the Authority an Award Contract for the award listed on Exhibit “5c i-5-A” subject to the foregoing conditions; 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, 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.

**6. Proposed Contract and Tariff for the Sale of Certain
Unbranded Power and Energy and Notice of Public Hearing**

The President and Chief Executive Officer submitted the following report:

"SUMMARY"

The Trustees are requested to:

1. Extend the term of an existing (a) 1,000 kilowatt ('kW') allocation of unbranded St. Lawrence-FDR Power Project ('STL Project') power and energy to the Niagara Frontier Transportation Authority ('NFTA') for its light rail system, and (b) 2,300 kW allocation of unbranded STL Project power and energy to NFTA for use at the Niagara Falls Air Base ('NFAB') (collectively, the 'NFTA Allocations'), through December 31, 2024.
2. Approve an updated form of service tariff, designated as Service Tariff No. 37A ('ST 37A'), that will apply to the sale of unbranded STL Project power and energy sold to non-preference customers at preference power rates as of January 1, 2020, including the sale of the NFTA Allocations.
3. Approve a new proposed form of contract ('Contract') for the sale of unbranded STL Project power and energy that will apply to the sale of unbranded STL Project power and energy sold to non-preference customers at preference power rates as of January 1, 2020, including the sale of the NFTA Allocations.
4. Authorize a public hearing, in accordance with Public Authorities Law ('PAL') §1009, on the Contract

Copies of the Contract and ST 37A are attached as Exhibit '5c i-6-A'.

BACKGROUND

New York Public Authorities Law §1005, relating to the power and duties of the Authority, states: 'The authority is . . . authorized, to the extent it deems it necessary or desirable, to provide power and energy, as it may determine it to be available, for the use by the Niagara Frontier Transportation Authority or its subsidiary corporation.'

The Authority and NFTA are parties to a power sale agreement which, as amended, supply the terms and conditions for the sale of the NFTA Allocations through December 31, 2019 when the term of the NFTA Allocations are scheduled to expire. In summary, the 1,000 kW allocation is used by NFTA at two facilities in Buffalo, NY and the 2,300 kW allocation is used at NFTA's Niagara Falls International Airport to support continued operation of the NFAB located at the airport. The NFTA Allocations are each scheduled to expire after midnight, December 31, 2019.

The Proposed Contract provides for electric service for the NFTA Allocations through December 31, 2024.

DISCUSSION

The NFTA's light rail system in the Buffalo-Niagara region, known as 'Metro Rail' provides one of the most environmentally-friendly, safe and affordable modes of public transportation in the region. These transportation services continue to play a key role in supporting economic development and growth of the region. The NFTA's light-rail corridor is home to Western New York's largest concentration of employment, population and university enrollment.

The NFAB plays a critical role in the defense of the nation while also serving as one of the largest employers in Niagara County. The base is home to the 914th Airlift Wing of the United States Air Force and the 107th Air Refueling Wing of the New York Air National Guard. The Authority's hydropower allocations help support vital military missions and further protect jobs at the base by providing a source of low-cost electricity. Notably, the NFAB was removed from the Department of Defense 2005 round of targeted base closures.

As required by PAL §1009, when the Authority believes it has reached agreement with its prospective co-party on a contract for the sale of firm hydropower, it will transmit the proposed form of the contract to the Governor and other elected officials, and hold a public hearing on the contract. At least 30-days' notice of the hearing must be given by publication once in each week during such period in each of six selected newspapers. Following the public hearing, the form of the contract may be modified, if advisable. Staff will then report to the Trustees on the public hearing any recommended modifications to the contract. Upon approval of the final contract by the Authority, the Authority must 'report' the proposed contract, along with its recommendations and the public hearing records, to the Governor and other elected officials. Upon approval by the Governor, the Authority is authorized to execute the final contract.

The proposed Contract and ST 37A represent updated forms for the sale of unbranded STL Project power and energy to non-preference customers at preference power rates. Thus, base rates for demand and energy reflect cost-based rates. ST 37A also provides that the rates and charges are subject to adjustment in the same manner and on the same schedule as the monthly rates and charges of Authority customers that receive Electric Service under Authority Service Tariff 38A and Service Tariff 39A (i.e., municipal electric systems and rural cooperatives). The documents also provide for a minimum monthly charge which is intended to help the Authority cover fixed costs incurred of serving a customer even when the customer does not utilize the full allocation during a billing period. Given NFTA's status as a government entity, the form of contract does not provide for any supplemental commitments relating to things like job retention and creation or capital investment that would be found in contracts with a private business. The documents do contain other terms and conditions found in other Authority contract forms, such as the following:

- The provision for direct billing of all production charges (i.e., demand and energy) as well as all New York Independent System Operator, Inc. charges, taxes and any other required assessments.
- The provision of substitute energy in the event of hydropower curtailments caused by adverse water conditions that impact power project operations.
- The collection of a Zero Emission Credit Charge and Monthly Renewable Energy Credit Charge to allow the Authority to recover costs it incurs relating to its purchase of Zero Emission Credits and Renewable Energy Credits attributable to the customer's load.

FISCAL INFORMATION

The Customer would continue to pay for unbranded STL power and energy at same rates currently charged, i.e., the cost-based rates that are currently charged to the Authority's preference power customers. As noted above, rates and charges are subject to adjustment in the same manner and on the same schedule as the monthly rates and charges of Authority preference power customers. Accordingly, there will be no fiscal impact to the Authority associated with extension of the NFTA Allocations.

RECOMMENDATION

The Senior Vice President – Clean Energy Solutions recommends that the Trustees:

- (i) approve an extension of the Niagara Frontier Transportation Authority ('NFTA') Allocations through December 31, 2024;

- (ii) approve ST 37A for the sale of unbranded STL Project power and energy sold to non-preference customers at preference power rates as of January 1, 2020, including the NFTA Allocations;
- (iii) approve a new proposed form of contract ('Contract') for the sale of unbranded STL Project power and energy sold to non-preference customers at preference power rates as of January 1, 2020, including the NFTA Allocations; and
- (iv) authorize a public hearing on the Contract in accordance with PAL §1009, on the Contract

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 of Clean Energy Solutions, provided highlights of staff's recommendation to the Board.

On motion made by Vice Chair Nicandri and seconded by Trustee Balboni, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That the 1,000 kilowatt ("kW") allocation of hydropower to the Niagara Frontier Transportation Authority ("NFTA") for use at its Buffalo, New York facilities, and the 2,300 kW allocation for use at the Niagara Falls Air Base ("NFAB") (collectively, the "NFTA Allocations") are each extended through December 31, 2024; and be it further

RESOLVED, That proposed Authority Service Tariff No. ST 37A attached to the foregoing report of the President and Chief Executive Officer ("Report") as Exhibit "5c i-6-A" is approved and shall apply to the sale of unbranded St. Lawrence-FDR Power Project ("STL Project") power and energy sold to non-preference customers at preference power rates as of January 1, 2020, including to the sale of the NFTA Allocations; and be it further

RESOLVED, That the proposed agreement for the sale of unbranded STL Project power and energy attached to the foregoing Report as Exhibit "5c i-6-A" ("Contract"), is hereby approved and shall apply to the sale of unbranded STL Project power and energy as of January 1, 2020, including to the sale of the NFTA Allocations; and be it further

RESOLVED, That the Corporate Secretary be, and hereby is, authorized to transmit copies of the Contract to the Governor, the Speaker of the Assembly, the Minority Leader of the Assembly, the Chairman of the Assembly Ways and Means Committee, the Temporary President of the Senate, the Minority Leader of the Senate and the Chairman of the Senate Finance Committee pursuant to Public Authorities Law ("PAL") §1009; and be it further

RESOLVED, That the Corporate Secretary be and hereby is authorized to convene a public hearing on the Contract in accordance with the procedures set forth in PAL §1009; and be it further

RESOLVED, That the Senior Vice President – Clean Energy Solutions or his designee be, and hereby is, authorized, subject to approval of the final form thereof by the Executive Vice President

and General Counsel, to negotiate and execute on behalf of the Authority, any and all documents necessary or desirable to provide for the interim sale of the power and energy to the NFTA on a month-to-month basis under terms and conditions that are consistent with the foregoing resolution, if necessary, pending gubernatorial approval of the Agreement as set forth in the foregoing report of the President and Chief Executive Officer; and be it further

RESOLVED, That the Chairman, the Vice Chair, 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.

d. Financial Operations

i. 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 are requested to authorize the release of an additional up to \$22.757 million in funding to the New York State Canal Corporation ('Canal Corporation') to support the operations of the Canal Corporation in calendar year 2020. The amount requested is 25% of the Canal Corporation's revised 2020 O&M Budget as presented to the Canal Corporation Board of Directors at this December 2019 meeting.

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 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 approve the release of \$22.757 million, an amount equal to 25% of the Canal Corporation's 2020 O&M Budget. With regard to Canal Corporation's operating expenses in excess of \$91.082 million in calendar year 2020, 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 \$22.757 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 2019, (iii) the release of \$64.8 million in Canal related operating expenses for 2019 previously authorized at the March 2019, May 2019, and September 2019 meetings, (iv) the release of up to \$1 million in Western NY Power Proceeds net earnings, and (v) the release of up to \$2 million in Northern NY Power Proceeds net earnings on the Authority's debt service coverage ratio and determined it will fall below the 2.0 reference point level to a level of 1.9. The debt service coverage ratio as calculated per the Board

Policy Statement is also expected to be below the 2.0 reference point for fiscal year 2020 at a level of 1.8. Given the current financial condition of the Authority, its estimated future revenues, operating expenses, debt service and reserve requirements, expected maintenance of a fixed charge coverage ratio at or above a peer target ratio of 1.75x at each year-end of the 2020-2023 forecast period, 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 \$22.757 million in funding to support the operation of the Canal Corporation in calendar year 2020. Staff has further determined 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 2019 are included in the Canal Corporation's revised 2020 O&M Budget.

RECOMMENDATION

The Chief Financial Officer recommends that the Trustees authorize the release of an additional up to \$22.757 million in funding to the Canal Corporation to support the operations of the Canal Corporation in calendar year 2020. The Chief Financial Officer further recommends that the Trustees affirm that such releases are feasible and advisable, that such funds are not needed for any of the purposes specified in Section 503(1)(a)-(c) of the Authority's Bond Resolution and that the release of such funds is authorized.

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

Mr. Adam Barsky, Chief Operations Officer, provided highlights of staff's recommendation to the Board.

On motion made by Trustee McKibben and seconded by Trustee Balboni, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That the Trustees hereby authorize the release of an additional up to \$22.757 million in funding to the Canal Corporation to support operations of the Canal Corporation in calendar year 2020, as discussed in the foregoing report of the President and Chief Executive Officer; and be it further

RESOLVED, 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 \$22.757 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 as a condition to making the payments specified in the foregoing report, on the day of such payments, the Treasurer or the Deputy 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 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.

6. Board Committee Report

a. Finance Committee Report

Finance Committee Chair, Tracy McKibben, reported that the Finance Committee met on November 19 and adopted a Consent Agenda which consisted of minutes of the last meetings. The Committee also received reports from staff and recommends that the full Board adopt resolutions regarding:

- Four (4) Capital Expenditure Authorizations;
- Revenue Bonds and Commercial Paper;
- The expansion of the Energy Efficiency Program; and
- The NYPA/Canal 2020 Budget.

Committee Chair McKibben then invited staff to make a brief presentation of their requests to the full Board.

i. **Moses-Adirondack Smart Path Reliability Project –
Capital Expenditure Authorization Request**

The President and Chief Executive Officer submitted the following report:

SUMMARY

The Trustees are requested to approve capital expenditures in the amount of \$341.2 million for funding of the Moses-Adirondack Smart Path Reliability Project ('Project'). Funding includes the continued efforts related to the New York State Public Service Commission's ('PSC') Article VII application, detailed engineering design, fabrication releases for procurement of major materials and contract award for construction services.

The total estimated Project cost remains at \$483.8 million, as previously communicated to the Trustees in October 2018. To date, the Trustees have approved \$142.6 million for the Project. This request of \$341.2 million will release the balance of capital expenditures for the Project.

BACKGROUND

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

The existing Moses-Adirondack 1&2 Lines ('MA 1&2 Lines') originate in the St. Lawrence Moses Substation in Massena, New York. From the Moses Substation, the lines generally traverse in a south and southwestern direction for approximately 86 miles, terminating in the Adirondack Substation in Croghan, New York. The MA 1&2 Lines are on double circuit steel lattice structures for the first eight miles and the remaining 78 miles are supported by single-circuit wooden H-frame structures. The two circuits were originally constructed by the United States Department of Defense in 1942 and acquired by the Authority in 1953. The portion of the lines supported by the wooden H-frame structures have reached the end of their useful life, require frequent maintenance, and are at risk for catastrophic failure.

The Project will replace the 78 miles of wooden transmission structures with new single-circuit monopole structures that can support 345kV transmission but will operate at 230kV until the full length of the transmission system is upgraded. The new structures will be located within the Authority's existing right-of-way except for a small reroute around the SUNY Canton campus. Construction will be sequenced to minimize outages on the MA 1&2 Lines and the 765kV Massena Substation – Utica Line ('765kV MSU Line'). Optical ground wire will also be installed along the entire transmission line over both circuits.

This Project will provide a statewide reliability benefit in support of the NYISO's System Restoration Program ('Blackstart'), access to renewable integration and low-cost generation, as well as a reduction in costs to consumers due to maintenance and unexpected outages on the MA 1&2 Lines and the 765kV MSU Line.

DISCUSSION

This Project has been brought before the Trustees at several meetings. Actions include the following:

1. Preliminary funding was approved for the Project in 2009 and 2014 in the aggregate amount of \$1,301,545.
2. September 2015 - the Project was originally presented to begin licensing efforts.
 - a. A Capital Expenditure Authorization Request with initial funding in the amount of \$8,138,200 was subsequently approved in January 2016 with a Project estimate of \$343,177,100.

3. September 2017 - the Project was presented with an estimate of \$440 million; the estimate changed due to the revised scope of the Project. The scope originally included the installation of a 230kV double circuit transmission line which was revised to two single circuit transmission lines capable of operating at 345kV. The Trustees approved the release of capital funding in the amount of \$9.1 million.
4. October 2018 - the Project was presented with an updated estimate of \$483.8 million. The estimate increased due to further design engineering completion, additional requirements from the regulating agencies, and increases in escalation. The Trustees authorized the release of additional capital expenditures in the amount of \$124 million to continue obtaining environmental permits, licensing certificates, final engineering work, Environmental Management & Construction Plan ('EM&CP') construction support services, and material procurement for the Project. This approval brought the total authorization to date to \$142.6 million.
5. In addition, several contract awards have been authorized by the Trustees in 2018 and 2019:
 - a. December 2018 - Steel Pole Structures and Foundation Anchor Bolt Cages Contract Award in the amount of \$99 million;
 - b. May 2019 - Conductor Procurement Contract in the amount of \$8.1 million;
 - c. September 2019 - Material Management Services in the amount of \$11.1 million and additional engineering support in the amount of \$1 million for a total engineering contract value of \$7.7 million.

The Article VII application for the Project was submitted to the PSC on April 5, 2018. Ongoing support has been continuing and the Article VII Certificate was approved by the PSC on November 14, 2019. Engineering and environmental assessments continue to progress and a draft EM&CP document for the first segment of the Project was submitted to all parties of the Article VII application on August 14, 2019. An approved EM&CP for the first segment of the Project is anticipated by the first quarter of 2020. EM&CP approval for the other segments of the Project are anticipated in the second quarter of 2020.

The expenditures for construction, material procurement, construction management support and Authority direct and indirect costs are required to continue the implementation of the Project. The procurement and contracting strategies were developed to mitigate risk and provide the most cost-effective solution to the Project. At this time, contracts and proposals have been issued or received for over 90% of the Project work. The final major contract to be awarded and approved is the construction contract. Proposals are currently under review and evaluation by the Project team. Approval for the construction contract award will be sought pursuant to the Authority's Expenditure Authorization Procedures, including Trustee approvals, as needed. A Limited Notice to Proceed may also be issued in early January to support initial construction activities, with a request for the Trustees' approval at the January meeting.

As contracts are finalized and permits are received, the Project team will work to remain within the \$483.8 million estimate.

This capital expenditure authorization request is comprised of the following:

Licensing and Engineering	\$ (2,178,600)
Procurement	\$ 12,122,000
Construction	\$ 292,152,800
Authority Direct and Indirect Expenses	<u>\$ 39,082,300</u>
TOTAL	\$ 341,178,500

FISCAL INFORMATION

Payment 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. Amounts in excess may require approvals in accordance with the New York Independent Service Operator ('NYISO') tariff.

RECOMMENDATION

The Senior Vice President and Chief Engineer – Operations Support Services, the Senior Vice President – Power Supply, the Vice President – Project Management, and the Project Manager recommend that the Trustees approve capital expenditures in the amount of \$341.2 million for continuation of the Moses-Adirondack Smart Path Reliability Project.

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

Mr. Joseph Kessler, Chief Operations Officer, provided highlights of staff's recommendation to the Board.

On motion made by Trustee McKibben and seconded by Trustee Trainor, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That pursuant to the Authority's Capital Planning and Budgeting Procedures, capital expenditures in the amount of \$341,178,500 for continuation of the Moses-Adirondack Smart Path Reliability Project are hereby authorized in accordance with, and as recommended in, the foregoing report of the President and Chief Executive Officer; and be it further

RESOLVED, That the Authority will use Capital Funds, which will include proceeds of debt issuances, to finance the capital costs of the Moses-Adirondack Smart Path Reliability Project;

<u>Capital</u>	<u>Expenditure Authorization</u>
Moses-Adirondack Smart Path Reliability Project	<u>\$341,178,500</u>

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, 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.

ii. **Transmission Life Extension and Modernization Program –
St. Lawrence Breaker and Relay Replacement Program –
Capital Expenditure Authorization Request – Phase 2**

The President and Chief Executive Officer submitted the following report:

SUMMARY

The Trustees are requested to authorize capital expenditures in the amount of \$44,234,000 for Phase 2 of the St. Lawrence Breaker and Relay Replacement Program ('Project'), which includes equipment upgrades at the St. Lawrence Robert Moses Switchyard.

The total estimated Project cost is \$110 million. Capital Expenditures for Phase 1, in the amount of \$65,766,000, were previously approved by the Trustees in December 2012. Approval of this request will release the final balance of the capital expenditures expected for the Program.

BACKGROUND

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

The Transmission Life Extension and Modernization ('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.

This Project includes equipment upgrades at the St. Lawrence Robert Moses Switchyard. Based on field assessments, data analysis and the expected service life of similar equipment, circuit breakers and disconnect switches have reached the end of their useful lives, have limited manufacturer support and are in need of replacement.

DISCUSSION

Phase 1, which was completed in 2016, included the replacement of thirty-one oil circuit breakers, protection cut over of fourteen power circuit breakers and the procurement of all protective relaying panels associated with the future replacement of the Substation Automation Monitoring and Control ('SAMAC') system.

This Phase 2 expenditure request includes the replacement of thirteen oil circuit breakers, cut over of nine gas-insulated power circuit breakers, and replacement of all the 230kV breakers and line disconnect switches, with an expected completion date of December 2021.

The projected spending for Phase 2, which is anticipated to be completed in 2021, is included in the Proposed Four-Year Budget and Financial Plan.

The total cost for Phase 2 estimated at \$44,234,000, is as follows:

Engineering/Design	\$ 5,539,000
Procurement	\$ 5,243,000
Construction/Installation	\$ 26,794,000
Authority Direct and Indirect Expenses	<u>\$ 6,658,000</u>
TOTAL	\$ 44,234,000

FISCAL INFORMATION

Payment 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.

RECOMMENDATION

The Senior Vice President and Chief Engineer – Operations Support Services, the Regional Manager – Transmission, the Vice President – Project Management, and the Project Manager recommend that the Trustees approve capital expenditures in the amount of \$44,234,000 for Phase 2 of the St. Lawrence Breaker and Relay Replacement Program.

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

Mr. Joseph Kessler, Chief Operations Officer, provided highlights of staff's recommendation to the Board.

On motion made by Trustee McKibben and seconded by Trustee Trainor, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That pursuant to the Authority's Capital Planning and Budgeting Procedures, capital expenditures in the amount of \$44,234,000 are hereby authorized in accordance with, and as recommended in, the foregoing report of the President and Chief Executive Officer; and be it further

RESOLVED, That the Authority will use Capital Funds, which will include proceeds of debt issuances, to finance the costs of the Phase 2 of the St. Lawrence Breaker and Relay Replacement Program;

<u>Capital</u>	<u>Expenditure Authorization</u>
Phase 2 – St. Lawrence Project Breaker and Relay Replacement Program	<u>\$44,234,000</u>

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, 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.

iii. **Smart Generation & Transmission Strategic Initiative –
Communications Backbone Program – Phase III –
Capital Expenditure Authorization Request**

The President and Chief Executive Officer submitted the following report:

SUMMARY

The Trustees are requested to approve capital expenditures in the amount of \$52,724,786 for Phase III of the Communication Backbone Program ('Program'). Phase III of the Program includes engineering, procurement, and construction services for final installation of fiber optic cables on existing transmission towers in Northern and Central NY, a redundant Microwave System in South Eastern NY, and a Microwave link connecting the Fitzpatrick Power Plant.

The total estimated Program cost is \$153 million. The Trustees approved \$19.78 million in March 2017 and \$77.5 million in October 2018. This request will release the final balance of the capital expenditures for the Program.

BACKGROUND

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

The Program is 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.

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

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

The redundant network will leverage existing infrastructure and new installations including fiber Optical Ground Wire ('OPGW') and Optical Attached Cable ('OPAC'), which will be installed on the Authority's existing transmission towers. A new redundant Microwave system similar to Northern NY, will be installed in South Eastern NY leveraging existing Authority infrastructure as well as tower leasing sites for optimum communication and stability.

DISCUSSION

The total estimate for the Program remains at \$153 million, which was previously presented at the October 2018 Trustee meeting. The balance of the capital expenditures will be utilized to complete the following work:

1. Installation of OPGW on the following segments:
 - Moses – Willis – Plattsburgh
 - Utica to Cooper's Corner

2. Additional Microwave Systems installed at the following locations:
 - Richard M. Flynn Power Plant, Brentwood, Gowanus, Harlem River, Kent, Eugene W. Zeltmann Power Plant, Pouch, Sprain Brook and White Plains Office.
 - Fitzpatrick to Utica
3. Leasing sites, as needed, for redundancy and optimal communications between Authority sites.

Capital expenditures in the amount of \$100,305,375 were previously approved for implementation of Phases I and II and planning for Phase III. Approval of this request will bring the total authorized amount, to date, to \$153,030,162.

The Program cost for Phase III is broken down as follows:

Engineering Design	\$ 1,632,118
Material Procurement & Construction/Installation	\$ 46,297,509
Authority Direct and Indirect Expenses	<u>\$ 4,795,158</u>
TOTAL	\$ 52,724,786

FISCAL INFORMATION

Payment 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.

RECOMMENDATION

The Senior Vice President and Chief Engineer – Operations Support Services, the Senior Vice President – Technology & Innovation, the Senior Vice President – Power Supply, the Vice President – Project Management, the Vice President – Strategic Operations, and the Project Manager recommend that the Trustees approve capital expenditures in the amount of \$52,724,786 for Phase III of the Communications Backbone Program.

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

Mr. Joseph Kessler, Chief Operations Officer, provided highlights of staff's recommendation to the Board.

On motion made by Trustee McKibben and seconded by Trustee Trainor, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That pursuant to the Authority's Capital Planning and Budgeting Procedures, capital expenditures in the amount of \$52,724,786 are hereby authorized in accordance with, and as recommended in, the foregoing report of the President and Chief Executive Officer; and be it further

RESOLVED, That the Authority intends to issue debt to finance the capital costs of the Smart Generation & Transmission Initiative Communications Backbone Program – Phase III;

<u>Capital</u>	<u>Expenditure Authorization</u>
Smart Generation & Transmission Initiative Communications Backbone Program - Phase III	<u>\$52,724,786</u>

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, 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.

iv. **Smart Generation Strategic Initiative –
Advanced Power Flow Control Project –
Capital Expenditure Authorization Request**

The President and Chief Executive Officer submitted the following report:

SUMMARY

The Trustees are requested to approve capital expenditures in the amount of \$11.5 million for implementation of the Advanced Power Flow Control Project ('Project').

Preliminary engineering funds in the amount of \$500,000, were previously approved by the President and Chief Executive Officer in June 2018, bringing the total estimated Project cost to \$12.0 million.

BACKGROUND

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

This Project aligns with the Smart Generation and Transmission Strategic Initiative to optimize transmission assets. The Project will include an advanced power flow control solution that can dynamically increase or decrease line reactance, similar functionality as a phase angle regulator. This installation will allow the Authority to enable real-time control power flow to 'push' power away from congested lines or 'pull' more power onto underutilized paths and unlock the excess capacity that exists on the grid. This technology will add benefits for Authority operations while also reducing the cost of energy for customers across the state and help drive a clean economy through the use of clean, renewable power from northern New York.

Initial studies have indicated that the greatest benefit can be realized from the deployment of a modular and scalable solution in the northern region of New York State.

DISCUSSION

Studies and planning have been underway since 2018. NYPA staff performed market study analysis using GE-MAPS software to run more than thirty scenarios across multiple locations, voltage class, levels of compensation and timing. The study results determined that the NYPA Moses-Adirondack 1 & 2 lines yielded the best value, benefit and ease of execution for the Project. A New York Independent System Operator ('NYISO') System Impact Study ('SIS') (Interconnection Queue #760) was performed to evaluate the impact of the Project on the reliability of the New York State Transmission System. The SIS was performed in accordance with the requirements of the NYISO Open Access Transmission Tariff. Additionally, a line protection study was performed to ensure any system protection modifications are identified via steady-state modeling and hardware in the loop modeling at NYPA's Advanced Grid Innovation Lab for Energy ('AGILE'). Conceptual engineering design has been developed alongside the studies for time efficiencies.

Project execution is planned to occur over a three-year period, commencing in 2019, with the issuance and finalization of the Engineering, Procurement and Construction ('EPC') specifications, EPC bidding and contract award by Spring 2020 and with installation, testing, commissioning and project closeout completing in 2021.

Capital Expenditures in the amount of \$500,000 were previously approved in June 2018, for preliminary engineering.

The total cost for the balance of the project estimated at \$11,500,000, is as follows:

Engineering/ Design	\$ 531,300
Construction/Installation	\$ 10,108,800
Project Closeout	\$ 12,000
Authority Direct and Indirect Expenses	<u>\$ 847,900</u>
TOTAL	\$ 11,500,000

FISCAL INFORMATION

Payment 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.

RECOMMENDATION

The Senior Vice President and Chief Engineer – Operations Support Services, the Regional Manager – Transmission, the Vice President – Project Management, and the Project Manager recommend that the Trustees approve capital expenditures in the amount of \$11,500,000 for the implementation of the Advanced Power Flow Control in the northern region of the State.

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

Mr. Joseph Kessler, Chief Operations Officer, provided highlights of staff's recommendation to the Board.

On motion made by Trustee McKibben and seconded by Trustee Trainor, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That pursuant to the Authority's Capital Planning and Budgeting Procedures, capital expenditures in the amount of \$11,500,000 are hereby authorized for the Advanced Power Flow Control Project in accordance with, and as recommended in the foregoing report of the President and Chief Executive Officer; and be it further

RESOLVED, That the Authority will use Capital Funds, which will include proceeds of debt issuances, to finance the costs of the Advanced Power Flow Control Project;

<u>Capital</u>	<u>Expenditure Authorization</u>
Advanced Power Flow Control Project	<u>\$11,500,000</u>

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, take any and all actions and execute and deliver any and all agreements, certificates and other documents to

December 11, 2019

effectuate the foregoing resolution, subject to the approval of the form thereof by the Executive Vice President and General Counsel.

**v. Refunding of 2007A and 2007C Revenue Bonds and
Expansion of Uses of Commercial Paper Notes**

The President and Chief Executive Officer submitted the following report:

SUMMARY

The Trustees are requested to approve the use of the Authority's Series 1, Series 2 and Series 3 Commercial Paper Notes ('Series 1-3 CP Notes') to refund outstanding bonds, notes or other obligations ('Obligations') of the Authority, including the Authority's 2007A and 2007C Revenue Bonds ('2007AC Bonds'), in addition to the presently authorized uses of the Series 1-3 CP Notes. The 2007AC Bonds are callable at par by the Authority on any date upon at least thirty days' notice. The Authority may realize significant savings by refunding the 2007AC Bonds with lower interest cost debt, such as the Series 1-3 CP Notes, and similar opportunities may arise in the future with respect to other Obligations.

The Finance Committee, at its November 19, 2019 meeting, adopted a recommendation that the Trustees approve the use of Series 1-3 CP Notes to refund Obligations.

BACKGROUND

The 2007AC Bonds were issued at interest rates ranging from 4.0% to 5.0% to refund a portion of the Authority's Commercial Paper Notes, finance a portion of the costs of the relicensing of the Niagara project, and refund a portion of the Authority's Series 2002 A Revenue Bonds.

Under the Authority's Amended and Restated Resolution Authorizing Commercial Paper Notes, adopted November 25, 1997 and as amended and supplemented (the 'CP Resolution'), the Authority is authorized to issue Series 1, Series 2, Series 3 and Series 4 Commercial Paper Notes for the various purposes set forth in prior resolutions of the Authority or for any purpose subsequently approved by the Authority's Trustees.

The CP Resolution requires that Commercial Paper Notes issued by the Authority are backstopped for payment by a revolving credit facility. The existing revolving credit facility supports the Series 1-3 CP Notes in an amount up to \$700 million.

DISCUSSION

In 2007, when NYPA issued the Series 2007A and Series 2007C Bonds, the securities included a full suite of terms and conditions including a redemption clause giving the Authority the option, but not the obligation, to refund the 2007AC Bonds on or after the ten-year mark.

Based on internal analysis related to the Authority's financial profile and position, as well as the value associated with a refunding, Management believes there is the potential to recognize significant interest cost saving by refunding the 2007AC Bonds on the order of 20+% net present value.

Management intends to refund the 2007AC Bonds with proceeds from the issuance of Series 1-3 CP Notes as an interim step preceding the issuance of a new long-term financing, both subject to receiving the necessary approvals from the Finance Committee and Board of Trustees. Both the interim commercial paper financing and the new long-term financing have been incorporated into the 2020 Budget & Four-Year Plan.

The Series 1 Notes, the Series 2 Notes and the Series 3 Notes are authorized in amounts up to \$400 million, \$450 million and \$350 million, respectively, and may be used for various purposes set forth in prior resolutions of the Authority and or for any other purposes subsequently approved by the Authority's Trustees. The Series 4 Notes are authorized in an amount up to \$220 million and may be used for various purposes described in prior resolutions of the Authority which include refunding or paying

at maturity any obligations of the Authority, as well as any other purpose subsequently approved by the Authority's Trustees.

The Trustees may approve the use of the Series 1-3 CP Notes to refund Obligations by adopting the resolution below.

FISCAL INFORMATION

Staff has determined that significant savings are available if the Authority refunds the 2007AC Bonds with Series 1-3 CP Notes or other lower-interest cost debt. Internal analysis, as well as third-party analysis, indicates that the value to the Authority from such a series of transactions is 20+% net present value, given current financing rates. By refunding the 2007AC Bonds, Management also has the opportunity to tailor the structure of a new long-term financing in a manner that optimizes the Authority's liquidity and debt maturity profile to appropriately match the Authority's sources and uses of funds.

RECOMMENDATION

The Executive Vice President and Chief Financial Officer recommends that the Trustees approve the use of the Authority's Series 1-3 CP Notes to refund Obligations. The Finance Committee, at its November 19, 2019 meeting, adopted a recommendation that the Trustees approve the use of Series 1-3 CP Notes to refund Obligations.

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

Mr. Adam Barsky, Chief Financial Officer, provided highlights of staff's recommendation to the Board.

On motion made by Trustee McKibben and seconded by Trustee Trainor, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That the Trustees hereby approve the use of the Authority's Series 1, Series 2 and Series 3 Commercial Paper Notes to refund outstanding bonds, notes or other obligations of the Authority; and be it further

RESOLVED, That the Chairman, the Vice Chair, the President and Chief Executive Officer, the Executive Vice President and Chief Financial 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, 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.

vi. **Energy Efficiency Program – Authorization to Expand Program Funding and Award Services Contracts to Support the Program**

The President and Chief Executive Officer submitted the following report:

SUMMARY

The Trustees are requested to approve additional funding in the amount of \$1.5 billion, in aggregate, for both Governmental Customer Energy Efficiency Program ('GCEEP') and Statewide Energy Efficiency Program ('Statewide EEP') to support additional future energy efficiency projects for eligible program participants across New York State ('NYS'). The increased funding would be in addition to the \$2.73 billion and \$1.15 billion previously approved by the Trustees for the GCEEP and Statewide EEP, respectively. These funds will bring the GCEEP to \$3.48 billion and Statewide EEP to \$1.9 billion. For the avoidance of doubt, this is not a request for approval for additional financial funding. The Trustees previously approved a request for additional financial funding in support of the Authority's Customer Energy Efficiency Programs at their November 19, 2019 meeting.

The Trustees are also requested to authorize the award of contracts (as described below) to nineteen firms to provide energy audit, design, engineering, procurement, construction management, installation, design build, and energy performance contracting services. The aggregate total for all nineteen contracts is \$1.5 billion. The term of each contract will be seven years. These nineteen contracts will be used to support both GCEEP and Statewide EEP, and funding of these contracts will be allocated from the aforementioned \$3.48 billion GCEEP and \$1.9 billion Statewide EEP. These funds will, generally, be recovered directly from program participants except for certain types of grants.

BACKGROUND

In June 2005, the Trustees approved initial funding of \$500 million under the GCEEP to support energy projects for the Authority's governmental customers located in New York City and Westchester County. Subsequent requests for funding were approved in an aggregate amount of \$2.23 billion to support projects under the GCEEP for a total of \$2.73 billion. In addition, in December 1997, the Trustees approved initial funding of \$30 million under the Statewide EEP to support energy projects for program participants throughout New York State, not including New York City and Westchester County governmental customers. Subsequent requests for funding were approved in an aggregate amount of \$1.12 billion to support projects under the Statewide EEP for a total of \$1.15 billion.

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. In accordance with the Authority's Expenditure Authorization Procedures, the award of non-personnel services or equipment contracts in excess of \$3 million require the Trustees' approval.

Both Governor Cuomo and the Mayor of the City of New York have identified reduced energy use, sustainability, and efficient operation of public facilities as one of the top priorities of their respective administrations. The Authority supports its customers statewide in meeting these goals and initiatives with the GCEEP and Statewide EEP.

DISCUSSION

On May 4th and May 11th of 2018, the Authority held supplier days at the Authority's White Plains Office ('WPO') to provide details about the Lean Supply Chain Model program. As part of this program, the Authority engaged suppliers that provide an array of products and services that would support multiple business lines across the Authority. Qualified suppliers would be invited to participate in future request for proposals.

On May 11, 2018, the Authority advertised in the New York State *Contract Reporter* a Request for Qualification ('RFQ') (Q18-6448DK) soliciting company profile, qualifications, fiscal information, and references. A total of 167 suppliers expressed interest in the RFQ. On June 24, 2018, fifty-seven (57) suppliers submitted detailed responses.

A cross-departmental evaluation team was formed to evaluate the proposals. In December 2018, the Authority informed the 57 suppliers that they were deemed qualified to provide one or more services outlined in the RFQ and would be notified of future Request for Proposals ('RFP') that aligned with the supplier's qualifications. Based on a combination of supplier capabilities and interests, the 57 suppliers from the RFQ were down-selected to 36 suppliers.

The Authority identified that there was a need to expand its supplier base to support the Energy Efficiency Program. The Energy Efficiency Program provides energy efficiency and renewable energy services to customers meeting the eligibility criteria under the Public Authorities Law, Section 1005. Energy efficiency services provided through the Energy Efficiency Program include investment grade audits ('IGA'), design, engineering, and installation services related to a wide variety of energy technologies and renewables.

On January 29, 2019, the Authority held a pre-bid conference at the WPO to inform suppliers of the upcoming RFP seeking suppliers interested in providing an array of services in support of the Energy Efficiency Program statewide. Previously qualified firms attended the pre-bid conference. On February 4, 2019, the Authority issued an RFP (Q19-6616KS-I) to thirty-six (36) of the 57 previously qualified suppliers. Bidders had the options to provide proposals for a combination of services within regions in New York State. The services and regions are listed below:

Services:

- ❑ Option A: Audit Services
- ❑ Option B: Retro-Commissioning Services
- ❑ Option C: Design/Engineering (Small to Medium Facilities)
Design/Engineering (Large Facilities)
Design/Engineering (Clean Water/Wastewater processes)
- ❑ Option D: Construction Management (Small to Medium Facilities)
Construction Management (Large Facilities)
Construction Management (Clean Waste / Water Water Projects)
- ❑ Option E: Construction Trade Management
- ❑ Option F: Turnkey (Small to Medium Facilities)
Turnkey (Large Facilities)
Turnkey (Clean Waste / Water Water Projects)
- ❑ Option G: Design Build/ ESPC Services
- ❑ Option H: Additional Services

Regions:

- ❑ Region 1 includes New York City
- ❑ Region 2 includes Westchester, Nassau, Suffolk, Rockland, Putnam, Dutchess, Orange, Sullivan, and Ulster Counties.
- ❑ Region 3 includes counties north of Region 2, east of Oswego, Onondaga, Cortland, and Broome Counties, excluding Oswego, Onondaga, Cortland and Broome Counties.
- ❑ Region 4 includes Oswego, Onondaga, Cortland and Broome Counties and all counties west of these four counties.

On February 20, 2019, a second bidders' conference was held at the WPO to provide information regarding pricing structure. Nineteen (19) firms attended the second conference. Six (6) addendums were issued.

On March 21, 2019, twenty-three (23) of the 36 qualified firms submitted proposals for one or more of the aforementioned options. Of the remaining 13 firms, six (6) suppliers declined to bid, while seven (7) suppliers did not submit proposals.

Commercial evaluations of all bids were conducted by Strategic Supply Management to ensure the firms' financial viability and determine if any exceptions requested were acceptable. MBE and WBE commitments for all suppliers are 15% each for regions 1 and 2, and 10% each for regions 3 and 4. SDVOB commitments for all suppliers are 6% for regions 1 and 2, and 3% for regions 3 and 4.

Based upon a thorough evaluation of the proposals, reference checks, and evaluation score, Authority staff recommends the award of contracts to the following nineteen (19) bidders for a term of seven years: AECOM USA, Inc., Arcadis of New York, Barile Gallagher Associates Consulting Engineers, Bette & Cring, LLC, CDM Constructors Inc., Dynamic Mechanical Contractors, Inc., Energy Systems Group, The Fulcrum Group, Guth DeConzo Consulting Engineers, Imperia Engineering Partners LLC, John W. Danforth Company, LaBella Associates Inc., LIRO Engineers, Macan Deve Engineers, Noresco, LLC, O'Brien & Gere Engineers Inc., Pres Energy Services, Wendel Energy Services LLC, and Willdan Energy Solutions. Allocation of funding will be made based upon assigned work.

Throughout the evaluation process, multiple rounds of pricing negotiations were held with suppliers that allowed for a reduction in overall pricing by approximately six percent (6%).

FISCAL INFORMATION

The additional funding will be provided from the Authority's Operating Fund monies transferred from time to time to the Capital Fund and/or from the proceeds of the Authority's Commercial Paper Notes (as such terms are used in the Authority's General Resolution Authorizing Revenue Obligations dated February 24, 1998, as amended and supplemented ('Bond Resolution')) or other financing instruments, as deemed applicable. In addition, projects may be funded, in part, with monies from Petroleum Overcharge Restitution ('POCR') funds. Funding will be allocated as projects are assigned based on each firm's performance and workload, subject to the Approval Limits for Execution of Commitments in the Authority's Expenditure Authorization Procedures. All Authority costs, including Authority overheads and the costs of advancing funds, but excluding the POCR and certain types of grants, will be recovered.

RECOMMENDATION

The Senior Vice President – Clean Energy Solutions, the Vice President – Engineering & Construction Management, and the Vice President – Business Development recommend that \$1.5 billion in additional funding for the Governmental Customer Energy Efficiency Program ('GCEEP') and Statewide Energy Efficiency Program ('Statewide EEP') be approved. It is also recommended that the nineteen (19) contract awards be approved in the aggregate amount of \$1.5 billion for a term of seven

years to the following firms: AECOM USA, Inc., Arcadis of New York, Barile Gallagher Associates Consulting Engineers, Bette & Cring, LLC, CDM Constructors Inc., Dynamic Mechanical Contractors, Inc., Energy Systems Group, The Fulcrum Group, Guth DeConzo Consulting Engineers, Imperia Engineering Partners LLC, John W. Danforth Company, LaBella Associates Inc., LIRO Engineers, Macan Deve Engineers, Noresco, LLC, O'Brien & Gere Engineers Inc., Pres Energy Services, Wendel Energy Services LLC, and Willdan Energy Solutions.

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

Ms. Sarah Salati, Chief Commercial Officer, provided highlights of staff's recommendation to the Board.

On motion made by Trustee McKibben and seconded by Trustee Trainor, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That the Trustees authorize the President and Chief Executive Officer, the Chief Operating Officer, the Chief Commercial Officer, the Senior Vice President – Clean Energy Solutions, the Vice President – Engineering & Construction Management, the Vice President – Business Development, and or such officer designated by the President and Chief Executive Officer to execute agreements and other documents between the Authority, the Governmental Customers Energy Efficiency Program ("GCEEP") and the Statewide Energy Efficiency Program ("Statewide EEP") participants and to execute agreements and other documents with contractors, such agreements having such terms and conditions as the executing officer may approve, subject to the approval of the form thereof by the Executive President and General Counsel, to facilitate the implementation of the GCEEP and Statewide EEP that the authorized funding level for each program be increased by \$750M respectively as listed below:

<u>Commercial Paper Program / Capital Fund / PO CR</u>	<u>GCEEP Authorization</u>	<u>Statewide EEP Authorization</u>
Previously Authorized	\$2.73 billion	\$1.15 billion
Additional Funding	<u>\$750 million</u>	<u>\$750 million</u>
Total Amount Authorized	<u>\$3.48 billion</u>	<u>\$1.9 billion</u>

AND BE IT FURTHER RESOLVED, That in accordance with the Guidelines for Procurement Contracts adopted by the Authority and the Authority's Expenditure Authorization Procedures, that an aggregate \$1.5 billion be allocated among the two programs, GCEEP and Statewide EEP, to perform services which include energy audits, design, engineering, procurement, construction management, installation, design build, and energy services performance contracting services:

<u>Commercial Paper Program/ Capital Fund/POCR</u>	<u>Ceiling</u>	<u>Termination Date</u>
AECOM USA, Inc., Arcadis of New York, Barile Gallagher Associates Consulting Engineers, Bette & Cring, LLC, CDM Constructors Inc., Dynamic Mechanical	\$1.5 billion (Aggregate)	7-year term (on or about December 31, 2026)

Contractors, Inc., Energy Systems Group, The Fulcrum Group, Guth DeConzo Consulting Engineers, Imperia Engineering Partners LLC, John W. Danforth Company, LaBella Associates Inc., LIRO Engineers, Macan Deve Engineers, Noresco, LLC, O'Brien & Gere Engineers Inc., Pres Energy Services, Wendel Energy Services LLC, and Willdan Energy Solutions.

AND BE IT FURTHER RESOLVED, That the Authority's Commercial Paper Notes, Series 1, Series 2 and Series 3, and Operating Fund monies transferred from time to time to the Capital Fund (as such terms are used in the Bond Resolution) may be used to finance GCEEP and Statewide EEP costs; and be it further

RESOLVED, That the Vice President – Engineering and Construction Management and Vice President – Business Development are authorized to determine which projects will be deemed to be energy efficiency projects within the meaning of Section (7) of Part P of Chapter 84 of the Laws of 2002 (the "Section (7) POCR Legislation") to be funded, in part, with Petroleum Overcharge Restitution ("POCR") Funds allocated pursuant to the Section (7) POCR Legislation; and be it further

RESOLVED, That POCR funds allocated to the Authority by the Section (7) POCR Legislation may be used to the extent authorized by such legislation, in such amounts as may be deemed necessary or desirable by the Senior Vice President – Clean Energy Solutions, the Vice President – Engineering & Construction Management, and the Vice President – Business Development to finance projects within both Energy Efficiency Programs; and be it further

RESOLVED, That the Chairman, the Vice Chair, 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, 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.

**vii. Power Authority 2020 Budget and Filing of the 2020-2023
Approved 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 are requested to approve the 2020 Budget for the Authority, specifically including the expenditures for the (i) 2020 Operations and Maintenance ('O&M') Budget (attached as Exhibit '6a vii-A'), (ii) 2020 Capital Budget (attached as Exhibit '6a vii-B'), (iii) 2020 Energy Services Budget (attached as Exhibit '6a vii-C') and (iv) 2020 Canal Development Fund Budget (collectively, with Exhibits '6a vii-A', '6a vii-B', and '6a vii-C', the '2020 Power Authority Budgets').

The 2020 Power Authority Budgets set forth the expected expenses of the Authority and include the recommended expenditures in the following amounts:

<u>2020 Power Authority Budgets</u>	<u>(\$ million)</u>
O&M	\$ 610.0
Capital	\$ 607.2
Energy Services	\$ 257.2
Canal Development Fund	\$ 2.6

In accordance with regulations of the Office of the State Comptroller ('OSC'), the Trustees are requested to approve the 2020-2023 Four-Year Budget and Financial Plan attached as Exhibit '6a vii-D' (in the form approved, the 'Approved 2020-2023 Four-Year Budget and Financial Plan') and authorize: (i) submitting the Approved 2020-2023 Four-Year Budget and Financial Plan to OSC, (ii) posting the Approved 2020-2023 Four-Year Budget and Financial Plan on the Authority's website, and (iii) making the Approved 2020-2023 Four-Year Budget and Financial Plan available for public inspection at not less than five convenient public places 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 2020 Power Authority Budgets include the budget information of the Authority and the Canal Corporation. Assumptions that were used by staff to prepare the 2020 Power Authority Budgets, and for forward periods, have been incorporated in the 2020-2023 Four-Year Budget and Financial Plan.

The 2020 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 2020 Power Authority Budgets, the Trustees will be authorizing spending for 2020 operations, spending for capital projects, and spending for general plant purchases of \$1.5 million or less. The requested headcount in the 2020 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 an additional 1.0% in the O&M Budget, 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 2020-2023 Four-Year Budget and Financial Plan has been prepared in accordance with these regulations.

DISCUSSION

2020 Power Authority O&M Budget

The 2020 O&M Budget of \$519.0 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 Canal Corporation in addition to the continued support of NYPA's strategic investments. The 2020 O&M Budget includes the Astoria Energy II lease payment of \$22.0 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 2020 O&M Budget for Operations provides \$271.1 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 and Richard M. Flynn Power Plant (totaling \$7.9 million), and planned enhancements in non-recurring maintenance work at the operating facilities (totaling \$35.6 million), are designed to support high reliability goals. Some of the major non-recurring projects include: Niagara Region Tower Painting (\$2.9 Million), Robert Moses Stop Log Rail Replacement (\$2.5 Million), Robert Moses Headgate Refurbishment (\$2.3 Million), Marcy South Region Tower Painting (\$1.9 Million), Robert Moses Upper Headgate Rail Slot Refurbishment (\$1.4 Million), ISO 55000 Asset Management Initiative (\$1.0 Million), and the Crescent Dam Concrete Rehabilitation project (\$1.0 Million).

The 2020 O&M Budget for Operations includes \$91.0 million for the Canal Corporation for the purposes described in the 2020 Canal Corporation Budget report being presented to the Canal Corporation Board of Directors at this December 2019 meeting.

2020 Power Authority Capital Budget

The 2020 Capital Budget totals \$537.3 million, which is a 16.2% increase over the 2019 Budget. Of this amount, \$367.5 million – or 68.4% of the total – represents planned investments in the Authority's Upstate New York facilities at Niagara and St. Lawrence, as well as in the Authority's statewide Transmission network. Significant capital projects for 2020 include: Moses Adirondack 1 & 2 Transmission Line Upgrade (\$91.5 million), Communications Backbone (\$51.7 million), Strategic Electric Vehicle Charging Station Installation (\$36.8 million), Lewiston Pump Generation Plant Life Extension and Modernization ('LEM') (\$33.2 million), Marcy to New Scotland Transmission Line Upgrade (\$27.1 Million), and the Niagara Transmission Life Extension and Modernization ('LEM') (\$17.1 million).

The 2020 Capital Budget includes \$69.9 million for the Canal Corporation for the purposes described in the 2020 Canal Corporation Budget report being presented to the Canal Corporation Board of Directors at this December 2019 meeting.

2020 Energy Services Budget

The 2020 Energy Services Budget totals \$257.2 million, an increase of \$45.2 million from the 2019 Energy Services Budget. These expenditures will be subsequently recovered over time from the benefiting customers. The 2020 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.

2020 Canal Development Fund Budget

The 2020 Canal Development Fund Budget totals \$2.6 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.

2020-2023 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 2020-2023 Four-Year Budget and Financial Plan is based on the 2020 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 \$607.2 million from the Operating Fund will be transferred to the Capital Fund for capital expenditures, subject to compliance with 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 Canal Development Fund as discussed above.

The 2020 Operating Budget shows adequate earnings levels so that the Authority may maintain its financial goals for cash flow and reserve requirements.

The 2020-2023 Four-Year Budget and Financial Plan's net income estimates for each of the years 2020 through 2023 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 recommends the Trustees approve the 2020 Budget for the Power Authority, specifically including the expenditures for the (i) 2020 Operations and Maintenance Budget, (ii) 2020 Capital Budget, (iii) 2020 Energy Services Budget and (iv) 2020 Canal Development Fund Budget, each as discussed herein.

In connection with the 2020 Capital Budget, the Chief Financial Officer recommends the Trustees authorize the transfer of up to \$607.2 million from the Operating Fund to the Capital Fund, subject to compliance with the Revenue Bond Resolution.

The Chief Financial Officer further recommends the Trustees (1) approve the 2020-2023 Four-Year Budget and Financial Plan, and (2) authorize (i) submitting the Approved 2020-2023 Four-Year Budget and Financial Plan to the Office of the State Comptroller ('OSC') in the prescribed format, (ii) posting the Approved 2020-2023 Four-Year Budget and Financial Plan on the Authority's website, and (iii) making the Approved 2020-2023 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, Chief Financial Officer, provided highlights of staff's recommendation to the Board.

On motion made by Trustee McKibben and seconded by Trustee Balboni, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That the 2020 Budget for the Power Authority, specifically including the expenditures for the (i) 2020 Power Authority Operations and Maintenance Budget, (ii) 2020 Capital Budget, (iii) 2020 Energy Services Budget and (iv) 2020 Canal Development Fund Budget, each as discussed in the foregoing report of the President and Chief Executive Officer, are hereby approved; and be it further

RESOLVED, That up to \$607.2 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 pursuant to 2 NYCRR Part 203, the attached 2020-2023 Four-Year Budget and Financial Plan, including its certification by the Chief Operating Officer, is approved in accordance with the foregoing report of the President and Chief Executive Officer; and be it further

RESOLVED, That pursuant to 2 NYCRR Part 203, the Corporate Secretary be, and hereby is, authorized to submit the Approved 2020-2023 Four-Year Budget and Financial Plan to the Office of the State Comptroller in the prescribed format, post the Approved 2020-2023 Four-Year Budget and Financial Plan on the Authority's website and make the Approved 2020-2023 Four-Year Budget and Financial Plan available for public inspection at not less than five convenient public places throughout New York State; and be it further

RESOLVED, That the Chairman, the Vice Chairman, the President and Chief Executive 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.

viii. **Adoption of 2020 Budget for the New York State Canal Corporation**

The President and Chief Executive Officer submitted the following report:

SUMMARY

The Canal Corporation Board of Directors ('Canal Board') is requested to approve the 2020 Budget for the Canal Corporation, specifically including expenditures for the (i) 2020 Operations and Maintenance ('O&M') Budget (attached as Exhibit '6a viii-A'), (ii) 2020 Capital Budget (attached as Exhibit '6a viii-B'), and (iii) 2020 Canal Development Fund Budget (collectively, the '2020 Canal Corporation Budgets'). The 2020 Canal Corporation Budgets set forth the expected expenses of the Canal Corporation and include the recommended expenditures in the following amounts:

<u>2020 Canal Corporation Budgets</u>	<u>(\$ million)</u>
O&M	\$ 91.0
Capital	\$ 69.9
Canal Development Fund	\$ 2.6

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 2020 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

2020 Canal Corporation O&M Budget

The 2020 O&M Budget of \$91.0 million reflects a concentration on the effective operation and maintenance of the Canal Corporation's critical investments in New York State Canal System.

The 2020 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 2020 are: Fairport and Spencerport Lift Bridge rehabilitation (\$4.8 million), dam safety and structural inspections (\$2.9 million), environmental health and safety projects and services (\$1.6 million), and water management/flood warning program support (\$1.0 Million).

2020 Canal Corporation Capital Budget

The 2020 Capital Budget totals \$69.9 million, representing on going, and new capital projects. Significant projects in 2020 are: The Empire State Trailway project (\$12.2 Million), Embankment Rehabilitation Program (\$4.5 Million), Lock O-7 Rehabilitation (\$4.4 million), Rochester West River Wall Rehabilitation (\$3.5 Million), and the DeRuyter Reservoir Dam Rehabilitation project (\$3.4 Million).

2020 Canal Development Fund Budget

The 2020 Canal Development Fund Budget totals \$2.6 million, representing on going 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.

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 recommends that the Canal Board approve the 2020 Budgets for the Canal Corporation, specifically including the expenditures for (i) 2020 Operations and Maintenance ('O&M') Budget (attached as Exhibit '6a viii-A'), (ii) 2020 Capital Budget (attached as Exhibit '6a viii-B'), and (iii) the 2020 Canal Development Fund Budget.

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

Mr. Adam Barsky, Chief Financial Officer, provided highlights of staff's recommendation to the Board.

On motion made by Trustee McKibben and seconded by Trustee Balboni, the following resolution, as submitted by the President and Chief Executive Officer, was unanimously adopted.

RESOLVED, That the 2020 Budget for the Canal Corporation, specifically including the expenditures for (i) 2020 Operations and Maintenance Budget, (ii) 2020 Capital Budget, and (iii) 2020 Canal Development Fund Budget, each as discussed in the foregoing report of the President and Chief Executive Officer, are hereby approved; and be it further

RESOLVED, That the Canal Corporation Board of Directors acknowledges 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; and be it further

RESOLVED, That the Chairman, the Vice Chairman, the President and Chief Executive Officer and all other officers of the Canal Corporation are, and each of them hereby is, authorized on behalf of the Canal Corporation to do any and all things, take any and all actions and execute and deliver any and all agreements, certificates and other documents to effectuate

December 11, 2019

the foregoing resolution, subject to the approval of the form thereof by the Executive Vice President and General Counsel.

7. Resolution – Dr. Anne M. Kress

Chairman Koelmel said that Dr. Anne Kress resigned from the Board in connection with her accepting a new appointment as President of Northern Virginia Community College. He said that this career opportunity reflects her status and stature in the academic community and speaks volume as to the strength of her abilities and credentials.

The Board is proud to have her as a member of the team for the past five years. Her contributions were numerous. She consistently challenged the members intellectually and otherwise and she is leaving the Board in a much better place than when her service started five years ago.

He continued that he wanted to give her due recognition for all she brought to the Board and the organization and he was happy and proud to convey this to her in the form of a formal resolution (Exhibit 7-A).

He ended by saying that, on behalf of the Board members he wanted to thank Dr. Kress for her many years of service to the Authority and the significant contributions she made to the organization; and he conveyed the Board's best wishes for her continued success.

President Quiniones said that Dr. Kress asked him to convey her thanks to her fellow Trustees; she learned much from each of them and it was a true honor to serve with such an extraordinary group.

8. **Next Meeting**

The Regular joint meeting of the New York Power Authority's Trustees and the Canal Corporation's Board of Directors will be held on January 29, 2020 **at the Clarence D. Rappleyea Building, White Plains, New York**, unless otherwise designated by the Chairman with the concurrence of the Trustees.

Closing

On motion made by Vice Chair Nicandri and seconded by member Tracy McKibben, the meeting was adjourned at approximately 11:40 a.m.

Karen Delince

Karen Delince
Corporate Secretary

POWER AUTHORITY OF THE STATE OF NEW YORK
AND
NEW YORK STATE CANAL CORPORATION

EXHIBITS

For

December 11, 2019

**Regular Joint Meeting
Minutes**

APPLICATION SUMMARY
Replacement Power

Company:	Somerset Operating Company, LLC (“SOC”)
Project Location:	Town of Barker
County:	Niagara
IOU:	National Grid
Business Activity:	Creation of large data center hub.
Project Description:	As part of repurposing the Somerset coal-fired plant site, SOC is proposing to develop the Empire State Data Hub which would focus on artificial intelligence, machine learning and other computationally intensive processes. SOC plans to initially construct three server buildings at the site with operations to begin in the summer of 2020.
Existing Allocation(s):	None
Power Request:	100,000 kW
Power Recommended:	10,000 kW
Job Commitment:	
Current:	0 jobs
New:	165 new, permanent, full time jobs at the Data Hub for the term of the allocation
New Jobs/Power Ratio:	17 jobs/MW
New Jobs - Avg. Wage and Benefits:	\$61,496
Capital Investment:	At least \$85 million
Capital Investment/MW:	\$8.5 MM/MW
Other ED Incentives:	Support from Empire State Development.
Summary:	With the 690 megawatt coal plant at the site due to close in 2020, SOC is proposing to transition a portion of the facility into a data center hub to support companies in the information and technology sectors. A goal of the project is to create as many jobs as possible and operate the new data hub using clean energy.

POWER AUTHORITY

OF THE

STATE OF NEW YORK

30 South Pearl Street
10th Floor
Albany, New York 12207-3425

AGREEMENT FOR THE SALE
OF EXPANSION POWER AND/OR REPLACEMENT POWER

Somerset Operating Company, LLC

The POWER AUTHORITY OF THE STATE OF NEW YORK (“Authority”), created pursuant to Chapter 772 of the New York Laws of 1931 and existing under Title I of Article V of the New York Public Authorities Law (“PAL”), having its office and principal place of business at 30 South Pearl Street, 10th Floor, Albany, New York 12207-3425, hereby enters into this Agreement for the Sale of Expansion Power and/or Replacement Power (“Agreement”) with Somerset Operating Company, LLC (“Customer”) with offices and principal place of business at 7725 Lake Road, Barker, New York 14012. The Authority and the Customer are from time to time referred to in this Agreement as “Party” or collectively as “Parties” and agree as follows:

RECITALS

WHEREAS, the Authority is authorized to sell hydroelectric power produced by the Niagara Power Project, Federal Energy Regulatory Commission (“FERC”) Project No. 2216, including hydropower known as Expansion Power (“EP”) and Replacement Power (“RP”) to qualified businesses in accordance with PAL § 1005(5) and (13);

WHEREAS, the Customer has applied for an allocation of EP and/or RP, or for an extension of an existing allocation of EP or RP, for use at facilities defined in this Agreement as the “Facility”;

WHEREAS, the Customer has offered to make specific commitments relating to, among other things, the creation and/or retention of jobs, capital investments, power usage and energy efficiency measures at the Facility;

WHEREAS, the Authority’s Board of Trustees approved an allocation of EP and/or RP to the Customer;

WHEREAS, the Parties have reached an agreement on the terms and conditions applicable for the sale of the EP and/or RP for a term provided in this Agreement;

WHEREAS, the Authority’s provision of Electric Service under this Agreement is an unbundled service separate from (i) the transmission of the allocation, and (ii) the delivery of the Allocation;

WHEREAS, electric service to be provided hereunder shall be subject to the rates and other terms and conditions contained in the Service Tariff No. WNY-2 as provided in this Agreement;

WHEREAS, the Authority has complied with requirements of PAL § 1009, and has been authorized to execute the Agreement; and

WHEREAS, the Authority has complied with requirements of PAL § 1009, and has been authorized to execute the Agreement.

NOW, THEREFORE, in consideration of mutual covenants, terms, and conditions herein, and for other good and valuable consideration, the receipt and adequacy of which the Parties hereby acknowledge, the Parties do hereby mutually covenant and agree as follows:

ARTICLE I

DEFINITIONS

When used with initial capitalization, whether singular or plural, the following terms, as used in this Agreement, shall have the meanings as set forth below. When used with initial capitalization, whether singular or plural, terms defined in schedules or appendices to this Agreement shall have the meanings set forth in such schedules or appendices.

“Adverse Water Condition” means any event or condition, including without limitation a hydrologic or hydraulic condition, that relates to the flow, level, or usage of water at or in the vicinity of the Project and/or its related facilities and structures, and which prevents, threatens to prevent, or causes the Authority to take responsive action that has the effect of preventing, the Project from producing a sufficient amount of energy to supply the full power and energy requirements of firm power and firm energy customers who are served by the Project.

“Agreement” means this Agreement, and unless otherwise indicated herein, includes all schedules, appendices and addenda thereto, as the same may be amended from time to time.

“Allocation” refers to the allocation(s) of EP and/or RP awarded to the Customer as specified in Schedule A.

“Alternative REC Compliance Program” has the meaning provided in Schedule E.

“Annual Capital Investment Commitment” has the meaning set forth in Schedule B.

“Annual CI Expenditures” has the meaning set forth in Schedule B.

“Base Employment Level” has the meaning set forth in Schedule B.

“Contract Demand” is as defined in Service Tariff No. WNY-2.

“Customer-Arranged Energy” means energy that the Customer procures from sources other than the Authority for the purpose of replacing Firm Energy that is not supplied to the Customer due to a Planned Hydropower Curtailment.

“Effective Date” means the date that this Agreement is fully executed by the Parties.

“Electric Service” is the Firm Power and Firm Energy associated with the Allocation and sold by the Authority to the Customer in accordance with this Agreement, Service Tariff No. WNY-2 and the Rules.

“Energy Services” has the meaning set forth in Article V of this Agreement.

“Expansion Power” (or “EP”) is 250 MW of Firm Power and associated Firm Energy from the Project eligible to be allocated by the Authority for sale to businesses pursuant to PAL § 1005(13).

“Expansion Project” has the meaning set forth in Section IV.3.a of this Agreement.

“Expansion Project Capital Investment Commitment” has the meaning set forth in Schedule B.

“Facility” means the Customer’s facilities as described in Schedule A to this Agreement.

“Firm Power” is as defined in Service Tariff No. WNY-2.

“Firm Energy” is as defined in Service Tariff No. WNY-2.

“FERC” means the Federal Energy Regulatory Commission (or any successor organization).

“FERC License” means the first new license issued by FERC to the Authority for the continued operation and maintenance of the Project, pursuant to Section 15 of the Federal Power Act, which became effective September 1, 2007 after expiration of the Project’s original license which became effective in 1957.

“Hydro Projects” is a collective reference to the Project and the Authority’s St. Lawrence-FDR Project, FERC Project No. 2000.

“International Joint Commission” or “IJC” refers to the entity with responsibility to prevent and resolve disputes between the United States of America and Canada under the *1909 Boundary Waters Treaty* and pursues the common good of both countries as an independent and objective advisor to the two governments. The IJC rules upon applications for approval of projects affecting boundary or transboundary waters and may regulate the operation of these projects.

“Load Reduction” has the meaning set forth in Section IX.6 of this Agreement.

“Load Serving Entity” (or “LSE”) means an entity designated by a retail electricity customer (including the Customer) to provide capacity, energy and ancillary services to serve such customer, in compliance with NYISO Tariffs, rules, manuals and procedures.

“Metering Arrangement” has the meaning set forth in Section II.8 of this Agreement.

“NYEM” means the New York Energy Manager, an energy management center owned and operated by the Authority.

“NYEM Agreement” means a written agreement between the Authority and the Customer providing for the Facility’s enrollment and Customer’s participation in NYEM.

“NYEM Participation” has the meaning specified in Schedule B of this Agreement.

“NYISO” means the New York Independent System Operator or any successor organization.

“NYISO Charges” has the meaning set forth in Section VII.3 of this Agreement.

“NYISO Tariffs” means the NYISO’s Open Access Transmission Tariff or the NYISO’s Market Administration and Control Area Services Tariff, as applicable, as such tariffs are modified from time to time, or any successor to such tariffs.

“Planned Hydropower Curtailment” means a temporary reduction in Firm Energy to which the Customer is entitled to receive under this Agreement made by the Authority in response to an anticipated or forecasted Adverse Water Condition.

“Physical Energy Audit” or “Audit” means a physical evaluation of the Facility in a manner approved by the Authority that includes at a minimum the following elements: (a) an assessment of the Facility’s energy use, cost and efficiency which produces an energy utilization index for the Facility (such as an Energy Use Intensity or Energy Performance Indicator); (b) a comparison of the Facility’s index to indices for similar buildings/facilities; (c) an analysis of low-cost/no-cost measures for improving energy efficiency; (d) a listing of potential capital improvements for improving energy consumption; and (e) an initial assessment of potential costs and savings from such measures and improvements.

“Project” means the Niagara Power Project, FERC Project No. 2216.

“Replacement Power” (or “RP”) is 445 MW of Firm Power and associated Firm Energy from the Project eligible to be allocated by the Authority for sale to businesses pursuant to PAL § 1005(13).

“Reporting Year” means the yearly interval that the Authority uses for reporting, compliance and other purposes as specified in this Agreement. The Reporting Year for this Agreement is from January 1 through December 31, subject to change by the Authority without notice.

“Rolling Average” has the meaning set forth in Schedule B.

“Rules” are the applicable provisions of Authority’s rules and regulations (Chapter X of Title 21 of the Official Compilation of Codes, Rules and Regulations of the State of New York), as may be modified from time to time by the Authority.

“Service Information” has the meaning set forth in Section II.12 of this Agreement.

“Service Tariff No. WNY-2” means the Authority’s Service Tariff No. WNY-2, as may be modified from time to time by the Authority, which contains, among other things, the rate schedule establishing rates and other commercial terms for sale of Electric Service to Customer under this Agreement.

“Schedule A” refers to the Schedule A entitled “Expansion Power and/or Replacement Power Allocations” which is attached to and made part of this Agreement.

“Schedule B” refers to the Schedule B entitled “Supplemental Expansion Power and/or Replacement Power Commitments” which is attached to and made part of this Agreement, including any appendices attached thereto.

“Schedule C” refers to the Schedule C entitled “Takedown Schedule” which is attached to and made part of this Agreement.

“Schedule D” refers to the Schedule D entitled “Zero Emission Credit Charge” which is attached to and made part of this Agreement.

“Schedule E” refers to the Schedule E entitled “Monthly Renewable Energy Credit Charge” which is attached to and made part of this Agreement.

“Substitute Energy” means energy that is provided to the Customer by or through the Authority for the purpose of replacing Firm Energy that is not supplied to the Customer due to a Planned Hydropower Curtailment or an Unplanned Hydropower Curtailment.

“Takedown” means the portion of the Allocation that Customer requests to be scheduled for a specific period as provided for in Schedule C, if applicable.

“Taxes” is as defined in Service Tariff No. WNY-2.

“Unforced Capacity” (or “UCAP”) means the electric capacity required to be provided by LSEs to serve electric load as defined by the NYISO Tariffs, rules, manuals and procedures.

“Unplanned Hydropower Curtailment” means a temporary reduction in the amount of Firm Energy to which the Customer is entitled to receive under this Agreement due to Adverse Water Condition that the Authority did not anticipate or forecast.

“Utility Tariff” means the retail tariff(s) of the Customer’s local electric utility filed and approved by the PSC applicable to the delivery of EP and/or RP.

ARTICLE II

ELECTRIC SERVICE

1. The Authority shall make available Electric Service to enable the Customer to receive the Allocation in accordance with this Agreement, Service Tariff No. WNY-2 and the Rules.
2. The Customer shall not be entitled to receive Electric Service under this Agreement for any EP and/or RP allocation unless such EP and/or RP allocation is identified in Schedule A.
3. The Authority will provide, and the Customer shall accept and pay for, Electric Service with respect to the Allocation specified in Schedule A. If Schedule C specifies a Takedown Schedule for the Allocation, the Authority will provide, and the Customer shall accept and pay for, Electric Service with respect to the Allocation in accordance with such Takedown Schedule.
4. The Authority shall provide UCAP in amounts necessary to meet the Customer’s NYISO UCAP requirements associated with the Allocation in accordance with the NYISO Tariffs. The Customer shall be responsible to pay the Authority for such UCAP in accordance with Service Tariff No. WNY-2.

5. The provision of Electric Service associated with the Allocation is an unbundled service separate from the transmission and delivery of power and energy to the Customer. The Customer acknowledges and agrees that Customer's local electric utility, not the Authority, shall be responsible for delivering the Allocation to the Facility specified in Schedule A in accordance with the applicable Utility Tariff(s).
6. The Contract Demand for the Customer's Allocation may be modified by the Authority if the amount of Firm Power and Firm Energy available for sale as EP or RP from the Project is modified as required to comply with any ruling, order, or decision of any regulatory or judicial body having jurisdiction, including but not limited to FERC. Any such modification will be made on a pro rata basis to all EP and RP customers, as applicable, based on the terms of such ruling, order, or decision.
7. The Contract Demand may not exceed the Allocation.
8. The Customer's Facility must be metered by the Customer's local electric utility in a manner satisfactory to the Authority, or another metering arrangement satisfactory to the Authority must be provided (collectively, "Metering Arrangement"). A Metering Arrangement that is not satisfactory to the Authority shall be grounds, after notice to the Customer, for the Authority to modify, withhold, suspend, or terminate Electric Service to the Customer. If a Metering Arrangement is not made to conform to the Authority's requirements within thirty (30) days of a determination that it is unsatisfactory, the Authority may modify, withhold, suspend, or terminate Electric Service on at least ten (10) days' prior written notice to the Customer. After commencement of Electric Service, the Customer shall notify the Authority in writing within thirty (30) days of any alteration to the Facility's Metering Arrangement, and provide any information requested by the Authority (including Facility access) to enable the Authority to determine whether the Metering Arrangement remains satisfactory. If an altered Metering Arrangement is not made to conform to the Authority's requirements within thirty (30) days of a determination it is unsatisfactory, the Authority may modify, withhold, suspend, or terminate Electric Service on at least ten (10) days' prior written notice to the Customer. The Authority may, in its discretion, waive any of the requirements provided for in this Section in whole or in part where in the Authority's judgment, another mechanism satisfactory to the Authority can be implemented to enable the Authority to receive pertinent, timely and accurate information relating to the Customer's energy consumption and demand and render bills to the Customer for all fees, assessments and charges that become due in accordance with this Agreement, Service Tariff No. WNY-2, and the Rules.
9. The Customer consents to the exchange of information between the Authority and the Customer's local electric utility pertaining to the Customer that such parties determine is necessary to provide for the allocation, sale and delivery of the Allocation to the Customer, the proper and efficient implementation of the EP and/or RP program, billing related to Electric Service, and/or the performance of such parties' obligations under any contracts or other arrangements between them relating to such matters. In addition, the Customer agrees to complete such forms and consents that the Authority determines are necessary to effectuate such exchanges of information.

10. The provision of Electric Service by the Authority shall be dependent upon the existence of a written agreement between the Authority and the Customer's local electric utility providing for the delivery of the Allocation on terms and conditions that are acceptable to the Authority.
11. The Customer understands and acknowledges that the Authority may from time to time require the Customer to complete forms, execute consents, and provide information (collectively, "Service Information") that the Authority determines is necessary for the provision of Electric Service, the delivery of the Allocation, billing related to Electric Service, the effective administration of the EP and/or RP programs, and/or the performance of contracts or other arrangements between the Authority and the Customer's local electric utility. The Customer's failure to provide Service Information on a timely basis shall be grounds for the Authority in its discretion to modify, withhold, suspend, or terminate Electric Service to the Customer.

ARTICLE III

RATES, TERMS AND CONDITIONS

1. Electric Service shall be sold to the Customer in accordance with the rates, terms and conditions provided for in this Agreement, Service Tariff No. WNY-2 and the Rules. The Authority agrees to waive the Minimum Monthly Charge set forth in Service Tariff No. WNY-2 for a period up to one (1) year upon written request from the Customer that is accompanied by information that demonstrates to the Authority's satisfaction a short-term reduction or interruption of Facility operations due to events beyond the Customer's control. The Customer shall provide such information that the Authority requests during the period of any such waiver to enable the Authority to periodically evaluate the ongoing need for such waiver.
2. If the Authority at any time during the term of this Agreement enters into an agreement with another customer for the sale of EP or RP at power and energy rates that are more advantageous to such customer than the power and energy rates provided in this Agreement and Service Tariff No. WNY-2, then the Customer, upon written request to the Authority, will be entitled to such more advantageous power and energy rates in the place of the power and energy rates provided in this Agreement and Service Tariff No. WNY-2 effective from the date of such written request, provided, however, that the foregoing provision shall not apply to:
 - a. any agreement for the sale of EP and/or RP with an Authority customer whose purchase of EP and/or RP is associated with an Authority service tariff other than Service Tariff No. WNY-2, including Authority Service Tariff No. WNY-1; or
 - b. any agreement for the sale of EP and/or RP with an Authority customer which is associated with such customer's participation in an Alternative REC Compliance Program provided for in Schedule E of this Agreement.
3. Notwithstanding any provision of this Agreement to the contrary, the power and energy rates for Electric Service shall be subject to increase by Authority at any time upon 30 days prior written notice to Customer if, after consideration by Authority of its legal obligations, the marketability of the output or use of the Project and Authority's competitive position with

respect to other suppliers, Authority determines in its discretion that increases in rates obtainable from any other Authority customers will not provide revenues, together with other available Authority funds not needed for operation and maintenance expenses, capital expenses, and reserves, sufficient to meet all requirements specified in Authority's bond and note resolutions and covenants with the holders of its financial obligations. Authority shall use its best efforts to inform Customer at the earliest practicable date of its intent to increase the power and energy rates pursuant to this provision. With respect to any such increase, Authority shall forward to Customer with the notice of increase, an explanation of all reasons for the increase, and shall also identify the sources from which Authority will obtain the total of increased revenues and the bases upon which Authority will allocate the increased revenue requirements among its customers. Any such increase in rates shall remain in effect only so long as Authority determines such increase is necessary to provide revenues for the purposes stated in the preceding sentences.

4. In addition to all other fees, assessments and charges provided for in the Agreement, Service Tariff WNY-2 and the Rules, the Customer shall be responsible for payment of the Zero Emission Credit Charge and Monthly Renewable Energy Credit Charge provided for in Schedule D and Schedule E, respectively, of this Agreement.

ARTICLE IV

SUPPLEMENTAL COMMITMENTS

1. Supplemental Commitments. Schedule B sets forth the Customer's "Supplemental Expansion Power and/or Replacement Power Commitments" ("Supplemental Commitments"). The Authority's obligation to provide Electric Service under this Agreement is expressly conditioned upon the Customer's timely compliance with the Supplemental Commitments described in Schedule B as further provided in this Agreement. The Customer's Supplemental Commitments are in addition to all other commitments and obligations provided in this Agreement.
2. *[Intentionally Left Blank]*
3. Special Provisions Relating to a New or Expanded Facility.

- a. Proposed New or Expanded Facility; Failure to Complete.

If Schedule B provides for the construction of a new facility or an expansion of an existing facility (collectively, "Expansion Project"), and the Customer fails to complete the Expansion Project by the date specified in Schedule B, the Authority may, in its discretion, (a) cancel the Allocation, or (b) if it believes that the Expansion Project will be completed in a reasonable time, agree with the Customer to extend the time for completion of the Expansion Project.

- b. Proposed New or Expanded Facility; Partial Performance.

If the Expansion Project results in a completed Facility that is only partially operational, or is material different than the Expansion Project agreed to in Schedule B (as measured

by such factors as size, capital investment expenditures, capital improvements, employment levels, estimated energy demand and/or other criteria determined by the Authority to be relevant), the Authority may, in its discretion, on its own initiative or at the Customer's request, make a permanent reduction to the Allocation and Contract Demand to an amount that the Authority determines to fairly correspond to the completed Facility.

c. Notice of Completion; Commencement of Electric Service.

- (i) The Customer shall give the Authority not less than ninety (90) days' advance written notice of the anticipated date of completion of an Expansion Project. The Authority will inspect the Expansion Project for the purpose of verifying the status of the Expansion Project and notify Customer of the results of the inspection. The Authority will thereafter commence Electric Service within a reasonable time subject to the other provisions of this Agreement based on applicable operating procedures of the Authority, Customer's local electric utility and NYISO.
- (ii) In the event of an Expansion Project being completed in multiple phases, at the Customer's request the Authority may, in its discretion, allow commencement of part of the Allocation upon completion of any such phase, provided the Authority will similarly inspect the Expansion Project for the purpose of verifying the status of the completed phase of the Expansion Project. Upon such verification by the Authority of any such completed phase, the Authority, in its discretion, will determine an amount of kW that fairly corresponds to the completed phase of the Expansion Project, taking into account relevant criteria such as any capital expenditures, increased employment levels, and/or increased electrical demand associated with the completed phase of the Expansion Project.

d. Other Rights and Remedies Unaffected.

Nothing in this Article is intended to limit the Authority's rights and remedies provided for in the other provisions of this Agreement, including without limitation the provisions in Schedule B of this Agreement.

ARTICLE V
ENERGY-RELATED PROJECTS, PROGRAMS AND SERVICES

The Authority shall periodically communicate with the Customer for the purpose of informing the Customer about energy-related projects, programs and services ("Energy Services") offered by the Authority that in the Authority's view could provide value to the Customer and/or support the State's Clean Energy Standard. The Customer shall review and respond to all such offers in good faith, provided, however, that, except as otherwise provided for in this Agreement, participation in any such Energy Services shall be at the Customer's option, and subject to such terms and conditions agreed to by the Parties in one or more definitive agreements.

ARTICLE VI
SERVICE TARIFF; CONFLICTS

1. A copy of Service Tariff No. WNY-2 in effect upon the execution of this Agreement is attached to this Agreement as Exhibit 1, and will apply under this Agreement with the same force and effect as if fully set forth herein. The Customer consents to the application of Service Tariff WNY-2. Service Tariff No. WNY-2 is subject to revision by the Authority from time to time, and if revised, the revised provisions thereof will apply under this Agreement with the same force and effect as if set forth herein. The Authority shall provide the Customer with prior written notice of any revisions to Service Tariff No. WNY-2.
2. In the event of any inconsistencies, conflicts, or differences between the provisions of Service Tariff No. WNY-2 and the Rules, the provisions of Service Tariff No. WNY-2 shall govern. In the event of any inconsistencies, conflicts or differences between the provisions of this Agreement and Service Tariff No. WNY-2 or the Rules, the provisions of this Agreement shall govern.

ARTICLE VII
TRANSMISSION AND DELIVERY

1. The Customer shall be responsible for:
 - a. complying with all requirements of its local electric utility (including any other interconnecting utilities) that are necessary to enable the Customer to receive delivery service for the Allocation. Delivery of the Allocation shall be subject to the Utility Tariff;
 - b. paying its local electric utility for delivery service associated with the Allocation in accordance with the Utility Tariff, and if the Authority incurs any charges associated with such delivery service, reimbursing the Authority for all such charges; and
 - c. obtaining any consents and agreements from any other person that are necessary for the delivery of the Allocation to the Facility, and complying with the requirements of any such person, provided that any such consents, agreements and requirements shall be subject to the Authority's approval.
2. The Authority will use good faith efforts to provide the Customer with at least one year's advance notice of the scheduled expiration of Historic Fixed Price Transmission Congestion Contracts. After issuance of any such notice, the Authority will make itself available at reasonable times to collaborate with the Customer and other EP and RP customers to discuss potential risk-hedging options that might be available following expiration of such contracts.
3. The Customer understands and acknowledges that delivery of the Allocation will be made over transmission facilities under the control of the NYISO. The Authority will act as the LSE with respect to the NYISO, or arrange for another entity to do so on the Authority's behalf. The Customer agrees and understands that it shall be responsible to the Authority for all costs incurred by the Authority with respect to the Allocation for the services established in the NYISO Tariff, or other applicable tariff ("NYISO Charges"), as set forth in Service

Tariff No. WNY-2 or any successor service tariff, regardless of whether such NYISO Charges are transmission-related.

4. The Authority will consider opportunities to assist the Customer concerning actions, practices, or procedures of the Customer's local electric utility identified by the Customer that could adversely impact the implementation and effectiveness of the EP and RP programs, provided that whether or not to take any action or adopt any position on any issue, including any adverse position, is within the Authority's discretion and further subject to applicable laws, regulations and existing legal obligations.

ARTICLE VIII

BILLING AND BILLING METHODOLOGY

1. The billing methodology for the Allocation shall be determined on a "load factor sharing" basis in a manner consistent with the Utility Tariff and any agreement between the Authority and the Customer's local electric utility. An alternative basis for billing may be used provided the Parties agree in writing and the local electric utility provides its consent if such consent is deemed necessary.
2. All other provisions with respect to billing are set forth in Service Tariff No. WNY-2 and the Rules.
3. The rights and remedies provided to the Authority in this Article are in addition to any and all other rights and remedies available to Authority at law or in equity.

ARTICLE IX

HYDROPOWER CURTAILMENTS AND SUBSTITUTE ENERGY

1. The Customer shall, on a form provided by the Authority, elect to either (a) purchase Substitute Energy from the Authority, or (b) rely on Customer-Arranged Energy, for the purpose of replacing Firm Energy that is not supplied to the Customer due to a Planned Hydropower Curtailment. The Customer shall make its election in accordance with the time period and other requirements prescribed in such form. The election shall apply for the entire calendar year identified in the form.
2. The Customer may change its election on a form provided by the Authority by giving the Authority notice of such change no later than the first day of November preceding the calendar year to which the Customer intends such change to become effective. Such change shall be effective on the first day of January following the Authority's receipt the Customer's notice and shall remain in effect unless it is changed in accordance with the provisions of Section IX.1.
3. In the event of an anticipated or planned Adverse Water Condition, the Authority will have the right in its discretion to implement Planned Hydropower Curtailments. The Authority will implement Planned Hydropower Curtailments on a non-discriminatory basis as to all Authority customers that are served by the Project. The Authority will provide the Customer with advance notice of Planned Hydropower Curtailments that in the Authority's judgment will impact Electric Service to the Customer no later than the tenth business day of the month

prior to the month in which the Planned Hydropower Curtailment is expected to occur unless the Authority is unable to provide such notice due to the circumstances that impede such notice, in which case the Authority will provide such advance notice that is practicable under the circumstances.

4. If the Customer elected to purchase Substitute Energy from the Authority, the Authority shall provide Substitute Energy to the Customer during all Planned Hydropower Curtailments. Unless otherwise agreed upon by the Parties in writing, Substitute Energy shall be sourced from markets administered by the NYISO. The Authority may require the Customer to enter into one or more separate agreements to facilitate the provision of Substitute Energy to the Customer.
5. If the Customer elected to rely on Customer-Arranged Energy, the Authority shall have no responsibility to provide the Customer with Substitute Energy during any Planned Hydropower Curtailment, and the Customer shall be responsible for the procurement, scheduling, delivery and payment of all costs associated with Customer-Arranged Energy.
6. The Customer shall have the right to reduce its load in response to a Planned Hydropower Curtailment (a "Load Reduction"), provided, however, that the Customer shall, on an Authority form, provide the Authority with no less than seven (7) days' advance notice of the time period(s) during when the Load Reduction will occur, the estimated amount of the Load Reduction (demand and energy), and all other information required by such form. The Authority will confirm whether the notice provides the required information and proposed Load Reduction has been accepted. The Customer shall reimburse the Authority for all costs that the Authority incurs as a result of the Customer's failure to provide such notice.
7. In the event of an Adverse Water Condition that the Authority did not anticipate or forecast, the Authority shall have the right in its discretion to implement Unplanned Hydropower Curtailments. The Unplanned Hydropower Curtailments will be implemented on a non-discriminatory basis as to all Authority customers that are served by the Project.
8. The Authority will provide the Customer with notice of Unplanned Hydropower Curtailments that in the Authority's judgment will impact Electric Service to the Customer within five (5) business days after the first occurrence of an Unplanned Hydropower Curtailment that occurs within a month, and thereafter will provide the Customer with reasonable notice under the circumstances of the potential for any other Unplanned Hydropower Curtailments that are expected to occur within such month or beyond. The Authority will give the Customer notice of any Unplanned Hydropower Curtailments that the Authority believes are likely to exceed forty-eight (48) continuous hours in duration.
9. Notwithstanding the Customer's election pursuant to Section IX.1, the Authority shall provide the Customer with Substitute Energy during Unplanned Hydropower Curtailments.
10. For each kilowatt-hour of Substitute Energy provided by the Authority during a Planned Hydropower Curtailment, the Customer shall pay the Authority directly during the billing month: (1) the difference between the market cost of the Substitute Energy and the charge for firm energy as provided for in this Agreement; and (2) any NYISO charges and taxes the Authority incurs in connection with the provision of such Substitute Energy. Unless

otherwise agreed upon by the Parties in writing, billing and payment for Substitute Energy provided for Planned Hydropower Curtailments shall be governed by the provisions of Service Tariff WNY-2 relating to the rendition and payment of bills for Electric Service.

11. The Customer shall be responsible for all costs associated with the Authority's provision of Substitute Energy during Unplanned Hydropower Curtailments. Unless otherwise agreed upon by the Parties in writing, billing and payment for Substitute Energy provided for Unplanned Hydropower Curtailments shall be governed by the provisions of Service Tariff WNY-2 relating to the rendition and payment of bills for Electric Service.
12. The Authority shall be under no obligation to deliver and will not deliver any such curtailed energy to the Customer in later billing periods.

ARTICLE X

EFFECTIVENESS, TERM AND TERMINATION

1. This Agreement shall become effective and legally binding on the Parties on the Effective Date.
2. Once commenced, Electric Service under the Agreement shall continue until the earliest of: (a) termination by the Customer with respect to its Allocation upon ninety (90) days prior written notice to the Authority; (b) termination by the Authority pursuant to this Agreement, Service Tariff No. WNY-2, or the Rules; or (c) expiration of the Allocation by its own term as specified in Schedule A.
3. The Customer may exercise a partial termination of the Allocation upon at least sixty (60) days' prior written notice to the Authority. The Authority will effectuate the partial termination as soon as practicable after receipt of such notice taking account of the Authority's internal procedures and requirements of the Customer's local electric utility.
4. The Authority may cancel service under this Agreement or modify the quantities of Firm Power and Firm Energy associated with the Allocation: (1) if such cancellation or modification is required to comply with any final ruling, order or decision of any regulatory or judicial body of competent jurisdiction (including any licensing or re-licensing order or orders of the FERC or its successor agency); or (2) as otherwise provided in this Agreement, Service Tariff No. WNY-2, or the Rules.

ARTICLE XI

EXTENSIONS OF ALLOCATION; AWARD OF ADDITIONAL ALLOCATIONS

1. The Customer may apply to the Authority for an extension of the term of the Allocation identified in Schedule A:
 - a. during the thirty-six (36) month period immediately preceding the scheduled expiration of the Allocation;

- b. pursuant to any other process that the Authority establishes; or
 - c. with the Authority's written consent.
2. Upon proper application by the Customer, the Authority may in accordance with applicable law and Authority procedures award additional allocations of EP and/or RP to the Customer at such rates and on such terms and conditions as the Authority establishes. If the Customer agrees to purchase Electric Service associated with any such additional allocation, the Authority will (a) incorporate any such additional allocations into Schedule A, or in its discretion will produce a supplemental schedule, to reflect any such additional allocations, and (b) produce a modified Appendix to Schedule B, as the Authority determines to be appropriate. The Authority will furnish the Customer with any such modified Schedule A, supplemental schedule, and/or a modified Appendix to Schedule B, within a reasonable time after commencement of Electric Service for any such additional allocation.
3. In addition to any requirements imposed by law, the Customer hereby agrees to furnish such documentation and other information as the Authority requests to enable the Authority to evaluate any requests for extension of the Allocation or additional allocations and consider the terms and conditions that should be applicable of any extension or additional allocations.

ARTICLE XII

NOTICES

1. Notices, consents, authorizations, approvals, instructions, waivers or other communications provided in this Agreement shall be in writing and transmitted to the Parties as follows:

To: The Authority

New York Power Authority
123 Main Street
White Plains, New York 10601
Email:
Facsimile: _____
Attention: Manager – Business Power Allocations and Compliance

To: The Customer

Somerset Operating Company, LLC
7725 Lake Road Barker, New York 14012
Email:
Facsimile:
Attention:

2. The foregoing notice/notification information pertaining to either Party may be changed by such Party upon notification to the other Party pursuant to Section XII.1.
3. Except where otherwise herein specifically provided, any notice, communication or request required or authorized by this Agreement by either Party to the other shall be deemed properly given: (a) if sent by U.S. First Class mail addressed to the Party at the address set

forth above; (b) if sent by a nationally recognized overnight delivery service, two (2) calendar days after being deposited for delivery to the appropriate address set forth above; (c) if delivered by hand, with written confirmation of receipt; (d) if sent by facsimile to the appropriate fax number as set forth above, with written confirmation of receipt; or (e) on the date of transmission if sent by electronic communication to the appropriate address as set forth above, with confirmation of receipt. Either Party may change the addressee and/or address for correspondence sent to it by giving written notice in accordance with the foregoing.

ARTICLE XIII

SUCCESSORS AND ASSIGNS; RESALE OF HYDROPOWER

1. This Agreement shall be binding upon, shall inure to the benefit of, and may be performed by, the legal successors and assigns of either Party hereto, provided that no assignment by either Party or any successor or assignee of such Party of its rights and obligations hereunder shall be made or become effective without the prior written consent of the other Party, which consent shall not be unreasonably withheld or conditioned. Notwithstanding the foregoing sentence, the Authority may require such approvals, and such consents and other agreements from the Customer and other parties, that the Authority determines are necessary in order to effectuate any such assignment.
2. The Customer may not transfer any portion of the Allocation to any other person, or a location different than the Facility, unless: (a) the Authority in its discretion authorizes the transfer Authority; (b) all other requirements applicable to a transfer, including board approvals, are satisfied; and (c) the transfer is effectuated in a form and subject to such terms and conditions approved by the Authority. Any purported transfer that does not comply with the foregoing requirements shall be invalid and constitute grounds for the Authority in its discretion to suspend Electric Service or terminate the Allocation and/or this Agreement.
3. The Customer may not sell any portion of the Allocation to any other person. Any purported sale shall be invalid and constitute grounds for the Authority in its discretion to suspend Electric Service, or terminate the Allocation and/or this Agreement.

ARTICLE XIV

MISCELLANEOUS

1. Choice of Law

This Agreement shall be governed by and construed in accordance with the laws of the State of New York to the extent that such laws are not inconsistent with the FERC License and the Niagara Redevelopment Act (16 USC §§836, 836a) and rulings by the IJC and without regard to conflicts of law provisions.

2. Venue

The Parties: (a) consent to the exclusive jurisdiction and venue of any state court within or for Albany County, New York, with subject matter jurisdiction for adjudication of any

claim, suit, action or any other proceeding in law or equity arising under, or in any way relating to this Agreement; (b) agree to accept service of process; and (c) will not raise any argument of inconvenient forum.

3. Previous Agreements; Modifications; and Interpretation

- a. This Agreement shall constitute the sole and complete agreement of the Parties hereto with respect to the sale of the Allocation and the subject matter of the Agreement, and supersedes all previous communications and agreements between the Parties, oral or written, with reference to the sale of the Allocation.
- b. No modifications of this Agreement shall be binding upon the Parties hereto or either of them unless such modification is in writing and is signed by a duly authorized officer of each of them.
- c. No provision shall be construed against a Party on the basis that such Party drafted such provision.

4. Waiver

Any waiver at any time by either the Authority or the Customer of their rights with respect to a default or of any other matter arising out of this Agreement shall not be deemed to be a waiver with respect to any other default or matter. No waiver by either Party of any rights with respect to any matter arising in connection with this Agreement shall be effective unless made in writing and signed by the Party making the waiver.

5. Severability and Voidability

If any term or provision of this Agreement shall be invalidated, declared unlawful or ineffective in whole or in part by an order of the FERC or a court of competent jurisdiction, such order shall not be deemed to invalidate the remaining terms or provisions hereof. Notwithstanding the preceding sentence, if any provision of this Agreement is rendered void or unenforceable or otherwise modified by a court or agency of competent jurisdiction, the entire Agreement shall, at the option of either Party and only in such circumstances in which such Party's interests are materially and adversely impacted by any such action, be rendered void and unenforceable by such affected Party.

ARTICLE XV
EXECUTION

To facilitate execution, this Agreement may be executed in as many counterparts as may be required, and it shall not be necessary that the signatures of, or on behalf of, each Party, or that the signatures of all persons required to bind any Party, appear on each counterpart; but it shall be sufficient that the signature of, or on behalf of, each Party, or that the signatures of the persons required to bind any Party, appear on one or more of the counterparts. All counterparts shall collectively constitute a single agreement. It shall not be necessary in making proof of this Agreement to produce or account for more than a number of counterparts containing the

respective signatures of, or on behalf of, all of the Parties hereto. The delivery of an executed counterpart of this Agreement as a PDF or similar file type transmitted via electronic mail, cloud based server, e-signature technology or similar electronic means shall be legal and binding and shall have the same full force and effect as if an original executed counterpart of this Agreement had been delivered.

[SIGNATURES FOLLOW ON NEXT PAGE]

AGREED:

SOMERSET OPERATING COMPANY, LLC

By: _____

Title: _____

Date: _____

AGREED:

POWER AUTHORITY OF THE STATE OF NEW YORK

By: _____
John R. Koelmel, Chairman

Date: _____

SCHEDULE A
EXPANSION POWER AND/OR REPLACEMENT POWER ALLOCATIONS

Customer: Somerset Operating Company, LLC	Allocation Amount (kW)	Facility and Address	Trustee Approval Date	Allocation Expiration Date
Type of Allocation				
RP	10,000 kW	7725 Lake Road Barker, New York 14012	July 30, 2019	Ten (10) years from the date of commencement of Electric Service

SCHEDULE B
**SUPPLEMENTAL EXPANSION POWER AND/OR REPLACEMENT POWER
COMMITMENTS**

ARTICLE I
SPECIFIC SUPPLEMENTAL COMMITMENTS

1. Employment Commitments

- a. The Customer shall create and maintain the employment level set forth in the Appendix to this Schedule B (the “Base Employment Level”). Such Base Employment Level shall be the total number of full-time positions held by: (a) individuals who are employed by the Customer at Customer’s Facility identified in the Appendix to this Schedule, and (b) individuals who are contractors or who are employed by contractors of the Customer and assigned to the Facility identified in such Appendix (collectively, “Base Level Employees”). The number of Base Level Employees shall not include individuals employed on a part-time basis (less than 35 hours per week); provided, however, that two individuals each working 20 hours per week or more at such Facility shall be counted as one Base Level Employee.
- b. The Base Employment Level shall not be created or maintained by transfers of employees from previously held positions with the Customer or its affiliates within the State of New York, except that the Base Employment Level may be filled by employees of the Customer laid off from other Customer facilities for *bona fide* economic or management reasons.
- c. The Authority may consider a request to change the Base Employment Level based on a claim of increased productivity, increased efficiency or adoption of new technologies or for other appropriate reasons as determined by the Authority. Any such change shall be within Authority’s discretion.

2. Capital Investment Commitments

The Customer shall make the capital investments specified in the Appendix to this Schedule B.

3. Power Utilization

For each month the Authority provides Electric Service to the Customer, the Customer shall utilize the entire Allocation, as represented by the Billing Demand (as such term is described in Service Tariff No. WNY-2), provided, however, that if only part of the Allocation is being utilized in accordance with Schedule C, the Customer shall utilize such partial amount of the Allocation.

4. Energy Efficiency and Conservation Program

- a. The Customer shall implement an energy efficiency and conservation program at the Facility through either (a) enrollment of the Facility and participation in NYEM in accordance with a NYEM Agreement, or (b) one or more Physical Energy Audits of the Facility, or (c) a combination of such measures, in accordance with the provisions of this Article.
- b. The Authority shall transmit to the Customer a NYEM Agreement and an election form. The Customer shall elect to either (a) enroll the Facility and participate in NYEM for a three-year term (“NYEM Participation”) in accordance with the NYEM Agreement, or (b) perform a Physical Energy Audit of the Facility. The Customer shall make the election within sixty (60) days of its receipt of the Authority’s communication. If the Customer elects NYEM Participation, it shall execute and return the NYEM Agreement to the Authority with the election form, abide by the NYEM Agreement, and participate in NYEM at its own expense at the rate provided in the NYEM Agreement. If the Customer elects to perform a Physical Energy Audit, it shall perform the Physical Energy Audit within three (3) years of the Effective Date of this Agreement, at its own expense.
- c. The Authority shall, on or before the expiration of the three-year term of the NYEM Agreement, transmit to the Customer a NYEM Agreement specifying the terms and conditions that would apply to NYEM participation for a second term, and an election form. The Customer shall elect either (a) NYEM Participation for a second term, or (b) to perform a Physical Energy Audit of the Facility. The Customer shall make the election within sixty (60) days of its receipt of the Authority’s communication. If the Customer elects NYEM Participation, it shall execute and return the NYEM Agreement to the Authority with the election form, abide by the NYEM Agreement, and participate in NYEM at its own expense at the rate provided in the NYEM Agreement. If the Customer elects to perform a Physical Energy Audit, it shall perform the Physical Energy Audit during the calendar year that begins six years after of the Effective Date of this Agreement, at its own expense.
- d. The Authority may in its discretion waive the requirement for a Physical Energy Audit, or may agree to a limited energy audit of the Facility, where it determines that the Physical Energy Audit is unnecessary based on the age of the Facility, energy efficiency and conservation improvements made at the Facility, the length of the Allocation, or other considerations the Authority determines to be relevant.

ARTICLE II
RECORDKEEPING, REPORTING AND FACILITY ACCESS

1. Employment

A record shall be kept monthly by the Customer, and provided on a calendar year basis to the Authority, of the total number of Base Level Employees who are employed at or assigned to the Customer's Facility identified in the Appendix to this Schedule, as reported to the United States Department of Labor (or as reported in such other record as agreed upon by the Authority and the Customer). Such report shall separately identify the individuals who are employed by the Customer, and the individuals who are contractors or who are employed by contractors of the Customer, and shall be certified to be correct by an officer of the Customer, plant manager or such other person authorized by the Customer to prepare and file such report and shall be provided to the Authority on or before the last day of February following the end of the most recent calendar year. The Authority shall have the right to examine and audit on reasonable advance written notice all non-confidential written and electronic records and data concerning employment levels including, but not limited to, personnel records and summaries held by the Customer and its affiliates relating to employment in New York State.

2. Capital Investments

The Customer shall comply with the recordkeeping, recording and reporting requirements specified in the Appendix to this Schedule B.

3. Power Usage

A record shall be kept monthly by the Customer, and provided on a calendar year basis to the Authority on or before the last day of February following the end of the most recent calendar year, of the maximum demand utilized each month in the Facility receiving the power covered by the Agreement.

4. Energy Efficiency and Conservation Program

Upon the Authority's request, the Customer shall provide the Authority with (a) a copy of the results of any Physical Energy Audit performed at the Facility (or, at the Authority's option, a report describing the results), performed pursuant to this Article; and (b) a description of any energy efficiency or conservation measures that the Customer has implemented at the Facility in response to any Physical Energy Audit or as a result of NYEM Participation.

5. Facility Access

Notwithstanding any other provision of the Agreement, the Customer shall provide the Authority with such access to the Facility, and such documentation, as the Authority deems necessary to determine the Customer's compliance with the Customer's Supplemental Commitments specified in this Schedule B.

ARTICLE III

COMPLIANCE ACTION BY THE AUTHORITY

1. Employment

If the year-end monthly average number of employees is less than 90% of the Base Employment Level set forth in the Appendix to this Schedule B for the subject calendar year, the Authority may reduce the Contract Demand in accordance with the procedures provided in Section III.5 of this Schedule. The maximum amount of reduction will be determined by multiplying the Contract Demand by the quantity one minus the quotient of the average monthly employment during the subject calendar year divided by the Base Employment Level. Any such reduction shall be rounded to the nearest fifty (50) kW. In the event of a reduction of the Contract Demand to zero, the Agreement shall automatically terminate.

2. Capital Investment Commitment

The Authority may reduce the Contract Demand as provided in the Appendix to this Schedule B if the Customer does not comply with the Capital Investment Commitment.

3. Power Utilization Level

If the average of the Customer's six (6) highest Billing Demands (as such term is described in Service Tariff No. WNY-2) for Expansion Power and/or Replacement Power is less than 90% of the Customer's Contract Demand in such calendar year the Authority may reduce the Contract Demand subject to in accordance with the procedures provide in Section III.5 of this Schedule. The maximum amount by which the Authority may reduce the Contract Demand shall be determined by multiplying the Contract Demand by the quantity one minus the quotient of the average of the six (6) highest Billing Demands for in such calendar year divided by the Contract Demand. Any such reduction shall be rounded to the nearest fifty (50) kW. In the event of a reduction of the Contract Demand to zero, this Agreement shall automatically terminate.

4. Additional Compliance Action

In addition to the Authority's other rights and remedies provided in this Agreement, Service Tariff WNY-2 and the Rules, the Authority may suspend Electric Service to the Customer if the Customer does not comply with any of the requirements in Section I.4 or Article II of this Schedule B.

5. Notice of Intent to Reduce Contract Demand

In the event that the Authority determines that the Contract Demand will be wholly or partially reduced pursuant to Sections III.1, III.2, or III.3 of this Schedule B, the Authority shall provide the Customer with at least thirty (30) days prior written notice of the proposed reduction, specifying the amount and reason for the reduction.

Before implementing any reduction, the Authority may consider the Customer's scheduled or unscheduled maintenance, Facility upgrade periods, and the business cycle. If, at the end of the thirty (30) day notice period, the Authority determines that a reduction is warranted, it shall provide the Customer with notice of such determination and provide the Customer with sixty (60) days to present a proposed plan with actionable milestones to cure the deficiency. The Authority shall respond to the Customer concerning the acceptability of any proposed plan that is provided in accordance with this Section III.5 within thirty (30) days of the Authority's receipt of such proposed plan. It shall be within the Authority's discretion whether or not to accept the Customer's proposed plan, require a different plan, or implement the reduction of the Contract Demand.

APPENDIX TO SCHEDULE B

BASE EMPLOYMENT LEVEL

The Customer shall employ at least 165 full-time employees (“Base Employment Level”) at the Customer’s Facility. The Base Employment Level shall be maintained for the term of the Allocation in accordance with Article I of Schedule B.

CAPITAL INVESTMENT COMMITMENTS

1. **Annual Capital Investment Commitment** (if applicable, as specified below)
 - a. Each Reporting Year, the rolling average of the annual capital investments made by the Customer at the Facility (“Rolling Average”) shall total not less than \$ **N/A** (the “Annual Capital Investment Commitment”). For purposes of this provision, “Rolling Average” means the three-year average comprised of (1) the total amount of capital investments (“Annual CI Expenditures”) made by the Customer at the Facility during the current Reporting Year, and (2) the Annual CI Expenditures made by the Customer at the Facility during the two prior Reporting Years.
 - b. Each year, the Customer shall record its Annual CI Expenditures for purposes of enabling the Authority to determine and verify the Rolling Average, which shall be provided to the Authority in a form specified by the Authority on or before the last day of February following the end of the most recent calendar year.
 - c. If the Customer’s Rolling Average as determined by the Authority is less than 90% of its Annual Capital Investment Commitment for the Reporting Year, the Contract Demand may be reduced by the Authority in accordance with the procedures provided in Section III.5 of this Schedule. The maximum amount by which the Authority may reduce the Contract Demand shall be determined by multiplying the Contract Demand by the quantity one minus the quotient of the Rolling Average divided by the Annual Capital Investment Commitment. Any such reduction shall be rounded to the nearest ten (10) kW. In the event of a reduction of the Contract Demand to zero, this Agreement shall automatically terminate.
2. **Expansion Project–Capital Investment Commitment** (if applicable, as specified below)
 - a. The Customer shall make a minimum capital investment of \$ 85 million to construct, furnish and/or expand the Facility (“Expansion Project Capital Investment Commitment”). The Expansion Project Capital Investment Commitment is expected to consist of the following approximate expenditures on the items indicated:

\$50 million – Computing Equipment

\$35 million – Construction of (3) Server Buildings

\$85 million – Total Expansion Project Capital Investment Commitment

- b. The total Expansion Project Capital Investment Commitment shall be made, and the Facility shall be completed and fully operational, no later than July 31, 2022 (*i.e.*, within three (3) years of the date of the Authority's award of the Allocation). Upon request of the Customer, such date may be extended in the discretion of the Authority.

SCHEDULE C
TAKEDOWN SCHEDULE

N/A

SCHEDULE D
ZERO EMISSION CREDIT CHARGE

I. DEFINITIONS

When used with initial capitalization, whether singular or plural, the following terms, as used in this Schedule, shall have the meanings as set forth below. Capitalized terms not defined in this Schedule shall have the meaning ascribed to them elsewhere in the Agreement, in Service Tariff No. WNY-2, or in the Rules.

“Affected LSEs” has the meaning provided in Section II.2 of this Schedule D.

“CES Order” means the Order issued by the PSC entitled “Order Adopting a Clean Energy Standard, issued on August 1, 2016, in Case Nos. 15-E-0302 and 16-E-0270, and includes all subsequent orders amending, clarifying and/or implementing such Order or the RES.

“EP and RP Programs ZEC Costs” has the meaning provided in Section II.4.b of this Schedule D.

“Government Action” has the meaning provided in Section II.8 of this Schedule D.

“Load Serving Entity” or “LSE” has the meaning provided in the CES Order.

“NYSERDA” means the New York State Energy Research and Development Authority.

“Public Service Commission” means the New York State Public Service Commission.

“Renewable Energy Standard” or “RES” means the Renewable Energy Standard adopted by the State in the CES Order.

“RES Compliance Program” means a program or initiative that the Authority has adopted for the purpose of meeting the RES for the load that the Authority serves under the EP and RP power programs as authorized in the Power Authority Act.

“State Energy Plan” means the 2015 New York State Energy Plan as amended from time to time.

“Zero Emission Credit” or “ZEC” has the meaning provided in the CES Order.

“Zero Emission Credit Charge” or “ZEC Charge” means the charge to the Customer established in this Schedule D.

“ZEC Purchase Obligation” has the meaning provided in Section II.2 of this Schedule D.

“ZEC Program Year” has the meaning provided in Section II.2 of this Schedule D.

II. ZEC CHARGE

1. Notwithstanding any other provision of the Agreement, or any provision of Service Tariff No. WNY-2 or the Rules, as of January 1, 2019, the Customer shall be subject to a ZEC Charge as provided in this Schedule D. The ZEC Charge shall be in addition to all other charges, fees and assessments provided for in the Agreement, Service Tariff No. WNY-2 and the Rules. By accepting Electric Service under the Agreement, the Customer agrees to pay the ZEC Charge.
2. As provided in the CES Order, the Public Service Commission, as part of the CES and Tier 3 of the Renewable Energy Standard, imposed an obligation on Load Serving Entities that are subject to the CES Order (“Affected LSEs”) to purchase Zero Emission Credits from NYSERDA in an amount representing the Affected LSE’s proportional share of ZECs calculated on the basis of the amount of electric load the LSE serves in relation to the total electric load served by all Load Serving Entities in the New York Control area, to support the preservation of existing at risk nuclear zero emissions attributes in the State (the “ZEC Purchase Obligation”). The ZEC Purchase Obligation is implemented on the basis of program years running from April 1 through March 31 of each year (“ZEC Program Year”).
3. The ZEC Charge is part of a RES Compliance Program that the Authority has adopted for the purpose of supporting the CES and Tier 3 of the RES and implementing the EP and RP power programs in a manner that is consistent with the New York State Energy Plan. The Authority will comply with the CES and Tier 3 of the RES by applying a form of ZEC Purchase Obligation to the end-user load for which the Authority serves as a load serving entity, including the load that the Authority serves under the EP and RP power programs.
4. The ZEC Charge, which is intended to recover from the Customer costs that the Authority incurs for purchasing ZECs in quantities that are attributable to the Customer’s EP and/or RP load served under this Agreement, will be determined and assessed to the Customer as follows:
 - a. The cost of the total ZEC Purchase Obligation for all LSEs in the New York Control Area, including the Authority as a participating load serving entity, will be assessed pursuant to the methodology provided in the CES Order. The Authority will purchase its proportionate share of ZECs from NYSERDA based on the proportion of the forecasted total kilowatt-hours load served by

the Authority (i.e., total Authority LSE load) in relation to the forecasted total kilowatt-hours load served by all LSEs in the New York Control Area as provided in the CES Order. The ZEC Purchase Obligations may be based on initial load forecasts with reconciliations made at the end of each ZEC Program Year by NYSERDA.

- b. The Authority will allocate costs from its ZEC Purchase Obligation between its power programs/load for which it serves as load serving entity, including the EP and RP load that it serves (the “EP and RP Programs ZEC Costs”). Such allocation will be based on the forecasted kilowatt-hours load of the EP and RP programs to be served by the Authority in relation to the forecasted total kilowatt-hours load served by the Authority (total Authority LSE load) for each ZEC Program Year. In addition, any balance resulting from the ZEC Program Year-end reconciliation of ZEC Purchase Obligations will be allocated to the EP and RP power programs based on the proportion of the actual annual kilowatt-hours load served under such programs to total actual annual kilowatt-hours load served by the Authority (total Authority LSE load).
 - c. The Authority will allocate a portion of the EP and RP Programs ZEC Costs to the Customer as the ZEC Charge based on the proportion of the Customer’s actual kilowatt-hours load for the EP and/or RP purchased by the Customer to total kilowatt-hours load served by the Authority under the EP and RP power programs (i.e., EP and RP Programs level load). In addition, any balance resulting from the ZEC Program Year-end reconciliation of the ZEC Purchase Obligation referenced above will be passed through to the Customer based on the proportion of the Customer’s annual kilowatt-hours load purchased under this Agreement to total annual kilowatt-hours load served under the EP and RP power program by the Authority (EP and RP Programs level load). The ZEC Charge assessed to the Customer shall not include any costs resulting from the Authority’s inability to collect a ZEC Charge from any other Authority customer.
5. The Authority may, in its discretion, include the ZEC Charge as part of the monthly bills for Electric Service as provided for in the Agreement, or bill the Customer for the ZEC Charge pursuant to another Authority-established procedure.
6. The Authority may, in its discretion, modify the methodology used for determining the ZEC Charge and the procedures used to implement such ZEC Charge on a nondiscriminatory basis among affected EP and RP customers, upon consideration of such matters as Public Service Commission orders modifying or implementing the CES Order, guidance issued by the New York Department of Public Service, and other information that the Authority reasonably determines to be appropriate to the determination of such methodology. The Authority shall

provide Customer with reasonable notice of any modifications to the methodology or procedures used to determine and implement the ZEC Charge.

7. Nothing in this Schedule shall limit or otherwise affect the Authority's right to charge or collect from the Customer any rate, charge, fee, assessment, or tax provided for under any other provision of the Agreement, or any provision of Service Tariff No. WNY-2 or the Rules.
8. If the ZEC Purchase Obligation is modified or terminated by the Public Service Commission or other controlling governmental authority (collectively, "Government Action"), the Authority shall modify or terminate the ZEC Charge, and assess any additional charges or provide any credits to the Customer, to the extent that the Authority determines such actions to be appropriate based on such Government Action.

SCHEDULE E
MONTHLY RENEWABLE ENERGY CREDIT CHARGE

I. DEFINITIONS

When used with initial capitalization, whether singular or plural, the following terms, as used in this Schedule, shall have the meanings as set forth below. Capitalized terms not defined in this Schedule shall have the meaning ascribed to them elsewhere in the Agreement, in Service Tariff No. WNY-2, or in the Rules.

“Alternative REC Compliance Program” has the meaning provided in Section III.1 of this Schedule E.

“Annual REC Percentage Target” has the meaning provided in Section II.2 of this Schedule E.

“CES Order” means the Order issued by the Public Service Commission entitled “Order Adopting a Clean Energy Standard, issued on August 1, 2016, in Case Nos. 15-E-0302 and 16-E-0270, and includes all subsequent orders amending, clarifying and/or implementing such Order or the RES.

“Clean Energy Standard” or “CES” means the Clean Energy Standard adopted by the State in the CES Order.

“Load Serving Entity” has the meaning provided in the CES Order.

“Mandatory Minimum Percentage Proportion” has the meaning provided in the CES Order.

“Monthly Renewable Energy Credit Charge” or “Monthly REC Charge” means the monthly charge to the Customer established in this Schedule E.

“NYSERDA” means the New York State Energy Research and Development Authority.

“Public Service Commission” means the New York State Public Service Commission.

“Renewable Energy Credit” or “REC” refers to a qualifying renewable energy credit as described in the CES Order.

“State Energy Plan” means the 2015 New York State Energy Plan as amended from time to time.

“RES Compliance Program” means a program or initiative that the Authority has adopted for the purpose of meeting the RES for the load that the Authority serves under the EP and RP power programs as authorized in the Power Authority Act.

“Renewable Energy Standard” or “RES” means the Renewable Energy Standard adopted by the State in the CES Order.

“REC Compliance Measures” mean: (1) the Authority’s procurement of RECs from NYSERDA in accordance with NYSERDA procedures and/or the CES Order; (2) the Authority’s procurement of RECs from available REC markets; (3) the Authority’s procurement of RECs from sources other than those identified in items (1) and (2) of this definition, including through a procurement process adopted by the Authority; and/or (4) any other measure that the PCS authorizes a Load Serving Entity to implement for the purpose of meeting the applicable Mandatory Minimum Percentage Proportion.

“Total Monthly EP-RP Load” has the meaning provided in Section II.3.b of this Schedule E

“Total Monthly REC Costs” has the meaning provided in Section II.3.b of this Schedule E.

II. MONTHLY REC CHARGE

1. Notwithstanding any other provision of the Agreement, or any provision of Service Tariff No. WNY-2 or the Rules, as of January 1, 2019, the Customer shall be subject to a Monthly REC Charge as provided in this Schedule E. The Monthly REC Charge is in addition to all other charges, fees and assessments provided in the Agreement, Service Tariff No. WNY-2 and the Rules. By accepting Electric Service under the Agreement, the Customer agrees to pay the Monthly REC Charge.
2. The Monthly REC Charge is part of a RES Compliance Program that the Authority has adopted for the purpose of complying with the CES and Tier 1 of the RES and implementing the EP and RP power programs in a manner that is consistent with the New York State Energy Plan, pursuant to which the Authority will invest in new renewable generation resources to serve its EP and RP customers. Such investments will be made through the procurement of RECs through REC Compliance Measures in quantities that are intended to address the annual Mandatory Minimum Percentage Proportions as applied by the Authority to the total EP and RP load that the Authority will serve each calendar year (the “Annual REC Percentage Target”) for the purpose of ultimately meeting the RES.
3. The Monthly REC Charge, which is intended to recover from the Customer costs that the Authority incurs for implementing REC Compliance Measures that are attributable to the Customer’s EP and/or RP load served under this Agreement, will be determined and assessed to the Customer as follows:

- a. The Authority shall have the right, for each calendar year to implement such REC Compliance Measures as it determines in its discretion to be appropriate for the purpose of meeting the Annual REC Percentage Target for the total EP and RP load that it will serve during such calendar year.
 - b. The Authority will, for each month of each calendar year, calculate the total costs ("Total Monthly REC Costs") that the Authority has incurred or estimates that it will incur from implementing RES Compliance Measures for the purpose of meeting the Annual REC Percentage Target for the total EP and RP kilowatt-hour load for the month ("Total Monthly EP-RP Load"). The Total Monthly REC Costs may be calculated based on forecasts of the Total Monthly EP-RP Load that the Authority expects to serve for the month, or on a lagged basis based on the actual Total Monthly EP-RP Load that the Authority served for the month.
 - c. Each month, the Authority will assess to the Customer, as a Monthly REC Charge, which will represent the Customer's share of the Total Monthly REC Costs assessed to the Total Monthly EP-RP Load. The Monthly REC Charge will be assessed as the proportion of the Customer's total kilowatt-hours load served by the Authority for such month to the Total Monthly EP-RP Load served by the Authority for such month, provided, however, that:
 - i. the Monthly REC Charge to the Customer shall not include any costs associated with the Authority's inability to collect the Monthly REC Charge from other Authority customers; and
 - ii. the effective per-MWh rate of the Monthly REC Charge to the Customer averaged over the REC Program Year to which the Annual REC Percentage Target applies shall not exceed the per-MWh rate of a Monthly REC Charge based on NYSERDA's published REC price for the REC Program Year.
4. The Authority may, in its discretion, include the Monthly REC Charge as part of the monthly bills for Electric Service as provided for in the Agreement, or bill the Customer for the Monthly REC Charge pursuant to another Authority-established procedure.
5. The Authority will, at the conclusion of each calendar year in which it assesses a Monthly REC Charge, conduct a reconciliation process based on the actual costs that it incurred for REC Compliance Measures and actual load served for the year, compared with cost or load estimates or forecasts, if any, that the Authority used to calculate the Customer's Monthly REC Charges during the year. The Authority will issue a credit, or an adjusted final charge for the year, as appropriate, based on the results of such reconciliation process. Any such final charge shall be payable within the time frame applicable to the Authority's bills

for Electric Service under this Agreement or pursuant to any other procedure established by the Authority pursuant to Section II.4 of this Schedule E.

6. Notwithstanding the provisions of Section II.3 of this Schedule E, if Electric Service for the Allocation is commenced after the Authority has implemented REC Compliance Measures for the year in which such Electric Service is commenced, and as a result the Customer's load cannot be accounted for in such REC Compliance Measures, the Authority may in its discretion implement separate REC Compliance Measures in order to meet the Annual REC Percentage Target for Customer's load for the year, and bill the Customer for the costs associated with such separate REC Compliance Measures.
7. Nothing in this Schedule shall limit or otherwise affect the Authority's right to charge or collect from the Customer, any rate, charge, fee, assessment, or tax provided for under any other provision of the Agreement, or any provision of Service Tariff No. WNY-2 or the Rules.

III. ALTERNATIVE REC COMPLIANCE PROGRAM

1. Nothing in this Schedule E shall be construed as preventing the Parties from entering into other agreements for an alternative arrangement for the Authority to meet the Annual REC Percentage Target with respect to the Customer's Allocation, including but not limited to Customer self-supply of RECs, alternative REC compliance programs and cost allocation mechanisms, in lieu of the Monthly REC Charge provided in this Schedule E (collectively, "Alternative REC Compliance Program").
2. The Authority shall communicate at least biennially with the Customer concerning implementation of the RES Compliance Program and potential Alternative REC Compliance Programs, if any, that the Authority is offering or expects to offer.



POWER AUTHORITY OF THE STATE OF NEW YORK

30 SOUTH PEARL STREET

ALBANY, NY 12207

Schedule of Rates for Sale of Firm Power Service to
Expansion Power and Replacement Power Customers
Located in Western New York

Service Tariff No. WNY-2

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Schedule of Rates for Firm Power Service

I. Applicability

To sales of Expansion Power and/or Replacement Power directly to a qualified business Customer for firm power service.

II. Abbreviations and Terms

- kW kilowatt(s)
- kW-mo. kilowatt-month
- kWh kilowatt-hour(s)
- MWh megawatt-hour(s)
- NYISO New York Independent System Operator, Inc. or any successor organization
- PAL New York Public Authorities Law
- OATT Open Access Transmission Tariff issued by the NYISO

Agreement: An executed written agreement between the Authority and the Customer for the sale of Expansion Power and/or Replacement Power to the Customer.

Annual Adjustment Factor or **AAF**: This term shall have the meaning set forth in Section V herein.

Authority: The Power Authority of the State of New York, a corporate municipal instrumentality and a political subdivision of the State of New York created pursuant to Chapter 772 of the New York Laws of 1931 and existing and operating under Title 1 of Article 5 of the PAL, also known as the “New York Power Authority.”

Customer: A business entity that has received an allocation of Expansion Power and/or Replacement Power, and that purchases Expansion Power and/or Replacement Power, directly from the Authority.

Electric Service: The power and energy provided to the Customer in accordance with the Agreement, this Service Tariff and the Rules.

Expansion Power or **EP** and/or **Replacement Power** or **RP**: Firm Power and Firm Energy made available under this Service Tariff by the Authority from the Project for sale to the Customer for business purposes pursuant to PAL § 1005(5) and (13).

Firm Power: Capacity (kW) that is intended to be always available from the Project subject to the curtailment provisions set forth in the Agreement between the Authority and the Customer and this Service Tariff. Firm Power shall not include peaking power.

Firm Energy: Energy (kWh) associated with Firm Power.

Load Serving Entity or **LSE**: This term shall have the meaning set forth in the Agreement.

Load Split Methodology or **LSM**: A type of billing methodology applicable to a Customer's Allocation which determines how a Customer's total metered usage is apportioned between the power and energy supplied by the Allocation and the Customer's other source of electricity supply, if any. LSM is usually provided for in an agreement between the Authority and the Customer's local electric utility, an agreement between the Authority and the Customer, or an agreement between the Authority, the Customer and the Customer's local electric utility. The load split methodology is often designated as "Load Factor Sharing" or "LFS", "First through the Meter" or "FTM", "First through the Meter Modified" or "FTM Modified", or "Replacement Power 2" or "RP 2".

Project: The Authority's Niagara Power Project, FERC Project No. 2216.

Rate Year or **RY**: The period from July 1 through June 30. For example, RY 2018 refers to July 1, 2018 through June 30, 2019.

Rules: The Authority's rules and regulations set forth in 21 NYCRR § 450 *et seq.*, as they may be amended from time to time.

Service Tariff: This Service Tariff No. WNY-2.

All other capitalized terms and abbreviations used in this Service Tariff but not defined in this Section or other provisions of this Service Tariff shall have the same meaning as set forth in the Agreement.

III. Monthly Rates and Charges

A. Expansion Power (EP) and Replacement Power (RP) Base Rates

The rates to be charged to the Customer by the Authority shall be as follows:

Billing Period	Demand (\$/kW)	Energy (\$/MWh)
January – June 2019	7.60	13.00

1. For RY 2019 (July 2019 through June 2020 Billing Periods), 50% of the Annual Adjustment Factor ("AAF"), as described in Section V, will be applied to the demand and energy rates stated in the table above.
2. For RY 2020 (July 2020 through June 2021 Billing Periods) and each Rate Year thereafter, the AAF will be applied to the then-effective base rates for demand and energy in accordance with Section V.

B. EP and RP Rates no Lower than Rural/Domestic Rate

At all times the applicable base rates for demand and energy determined in accordance with Sections III.A and V of this Service Tariff shall be no lower than the rates charged by the Authority for the sale of hydroelectricity for the benefit of rural and domestic customers receiving service in accordance with the Niagara Redevelopment Act, 16 U.S.C. § 836(b)(1) (the "Rural/Domestic Rate"). This provision shall be implemented as follows: if the base rates, as determined in accordance with Sections III.A and V of this Service Tariff, are lower than the Rural/Domestic Rate on an average \$/MWh basis, each set of rates measured at 80% load factor which is generally regarded as representative for EP and RP Customers, then the base rates determined under Sections III.A and V of this Service Tariff will be revised to make them equal to the Rural/Domestic Rate on an average \$/MWh basis. However, the base rates as so revised will have no effect until such time as these base rates are lower than the Rural/Domestic Rate.

C. Monthly Base Rates Exclude Delivery Service Charges

The monthly base rates set forth in this Section III exclude any applicable costs for delivery services provided by the local electric utility.

D. Minimum Monthly Charge

The Minimum Monthly Charge shall equal the product of the demand charge and the Contract Demand (as defined herein). Such Minimum Monthly Charge shall be in addition to any NYISO Charges or Taxes (each as defined herein) incurred by the Authority with respect to the Customer's Allocation.

E. Estimated Billing

If the Authority, in its discretion, determines that it lacks reliable data on the Customer's actual demand and/or energy usage for a Billing Period during which the Customer receives Electric Service from the Authority, the Authority shall have the right to render a bill to the Customer for such Billing Period based on estimated demand and estimated usage ("Estimated Bill").

For the purpose of calculating a Billing Demand charge for an Estimated Bill, the demand charge will be calculated based on the Load Split Methodology that is applicable to the Customer as follows:

- For Customers whose Allocation is subject to a Load Factor Sharing/LFS LSM, the estimated demand (kW) will be calculated based on an average of the Customer's Billing Demand (kW) values for the previous three (3) consecutive Billing Periods. If such historical data is not available, then the estimated demand (kW) value for the Estimated Bill will equal the Customer's takedown (kW) amount.
- For Customers whose Allocation is subject to a First through the Meter/ FTM, FTM Modified, or RP 2 LSM, the estimated demand (kW) value will equal the Customer's takedown (kW) amount.

For the purpose of calculating a Billing Energy charge for an Estimated Bill, the energy charge will be calculated based on the Customer's Load Split Methodology as follows:

- For Customers whose Allocation is subject to a Load Factor Sharing/LFS LSM, the estimated energy (kWh) will be based on the average of the Customer's Billing Energy (kWh) values for the previous three (3) consecutive Billing Periods. If such historical data is not available, then the estimated energy value (kWh) will be equal to the takedown (kW) amount at 70 percent load factor for that Billing Period.
- For Customers whose Allocation is subject to a First through the Meter/FTM, FTM Modified, or RP 2 LSM, the estimated energy (kWh) will be equal to the takedown (kW) amount at 100 percent load factor for that Billing Period.

If data indicating the Customer's actual demand and usage for any Billing Period in which an Estimated Bill was rendered is subsequently provided to the Authority, the Authority will make necessary adjustments to the corresponding Estimated Bill and, as appropriate, render a revised bill (or provide a credit) to the Customer.

The Minimum Monthly Charge provisions of Section III.D shall apply to Estimated Bills.

The Authority's discretion to render Estimated Bills is not intended and shall not be construed to limit the Authority's rights under the Agreement.

F. Adjustments to Charges

In addition to any other adjustments provided for in this Service Tariff, in any Billing Period, the Authority may make appropriate adjustments to billings and charges to address such matters as billing and payment errors, and the receipt of actual, additional, or corrected data concerning Customer energy or demand usage.

G. Billing Period

The Billing Period is any period of approximately thirty (30) days, generally ending with the last day of each calendar month but subject to the billing cycle requirements of the local electric utility in whose service territory the Customer's facilities are located.

H. Billing Demand

Billing Demand shall be determined by applying the applicable billing methodology to total meter readings during the Billing Period. See Section IV.E, below.

I. Billing Energy

Billing Energy shall be determined by applying the applicable billing methodology to total meter readings during the Billing Period. See Section IV.E, below.

J. Contract Demand

The Contract Demand will be the amount of Expansion Power and/or Replacement Power, not to exceed the Allocation, provided by the Authority to the Customer in accordance with the Agreement

IV. General Provisions

A. Character of Service

Alternating current; sixty cycles, three-phase.

B. Availability of Energy

1. Subject to Section IV.B.2, the Authority shall provide to the Customer in any Billing Period Firm Energy associated with Firm Power. The offer of Firm Energy for delivery shall fulfill the Authority's obligations for purposes of this provision whether or not the Firm Energy is taken by the Customer.
2. In the event of an Adverse Water Condition, the rights and obligations of the Customer and Authority, including but not limited to such matters as Substitute Energy, Customer-Arranged Energy and responsibility for payment of costs associated therewith, will be governed by Article IX of the Agreement.

C. Delivery

For the purpose of this Service Tariff, Firm Power and Firm Energy shall be deemed to be offered when the Authority is able to supply Firm Power and Firm Energy to the Authority's designated NYISO load bus. If, despite such offer, there is a failure of delivery caused by the Customer, NYISO or local electric utility, such failure shall not be subject to a billing adjustment pursuant to Section 454.6(d) of the Rules.

D. Adjustment of Rates

To the extent not inconsistent with the Agreement, the base rates contained in this Service Tariff may be revised from time to time on not less than thirty (30) days written notice to the Customer.

E. Billing Methodology

Unless otherwise specified in the Agreement, the following provisions shall apply:

1. The billing methodology used to determine the amount of Firm Power and Firm Energy to be billed to the Customer related to its Allocation shall be Load Factor Sharing (“LFS”) in a manner consistent with the Agreement and any applicable delivery agreement between the Authority and the Customer’s local electric utility or both as determined by the Authority. An alternative billing methodology may be used provided the Customer and the Authority agree in writing and the Customer’s local electric utility provides its consent if the Authority determines that such consent is necessary.
2. **Billing Demand** –The Billing Demand charged by the Authority to each Customer will be the highest 15 or 30-minute integrated demand, as determined by the Customer’s local electric utility, during each Billing Period recorded on the Customer’s meter multiplied by a percentage based on the LFS methodology, unless the Customer and the Authority agree in writing to an alternative billing methodology and the Customer’s local electric utility provides its consent if the Authority determines that such consent is necessary. Billing Demand may not exceed the amount of the Contract Demand.
3. **Billing Energy** –The kilowatt-hours charged by the Authority to each Customer will be the total number of kilowatt-hours recorded on the Customer’s meter for the Billing Period multiplied by a percentage based on the LFS methodology, unless the Customer and the Authority agree in writing to an alternative billing methodology and the Customer’s local electric utility provides its consent if the Authority determines that such consent is necessary.
4. With regard to LFS methodology calculations:
 - a. For every hour of the Billing Period, the Customer receives hydropower energy (Firm Energy) equal to the hourly metered load multiplied by the ratio of Customer’s Contract Demand divided by the maximum hourly metered load value recorded in a given Billing Period, such ratio not to exceed the value of 1.
 - b. When the maximum hourly metered demand for the Billing Period is less than or equal to the Contract Demand, all of the Customer’s metered load will be supplied by Firm Energy.
 - c. When the maximum hourly metered demand for the Billing Period is greater than the Contract Demand, the portion of the Customer’s metered load to be supplied by Firm Energy is as follows:
 - i. For Customer with hourly billing: the sum of the values, for each hour of the Billing Period, of the Contract Demand divided by the maximum hourly metered demand in the Billing Period multiplied by the hourly metered energy consumption.
 - ii. For Customer with monthly billing: the Contract Demand divided by the maximum hourly metered demand in the Billing Period multiplied by the total metered energy consumption during the Billing Period.
 - d. All demand values will be adjusted for losses.

F. Payment by Customer to Authority

1. Demand and Energy Charges, Taxes

The Customer shall pay the Authority for Firm Power and Firm Energy during any Billing Period the higher of either (i) the sum of (a), (b) and (c) below, or (ii) the Minimum Monthly Charge (as defined herein):

- a. The demand charge per kilowatt for Firm Power specified in this Service Tariff or any modification thereof applied to the Customer's Billing Demand (as defined in Section IV.E, above) for the Billing Period; and
- b. The energy charge per MWh for Firm Energy specified in this Service Tariff or any modification thereof applied to the Customer's Billing Energy (as defined in Section IV.E, above) for the Billing Period; and
- c. A charge representing reimbursement to the Authority for all applicable Taxes incurred by the Authority as a result of providing Expansion Power and/or Replacement Power allocated to the Customer.

2. Transmission Charge

The Customer shall compensate the Authority for all transmission costs incurred by the Authority with respect to the Allocation, including such costs that are charged pursuant to the OATT.

3. NYISO Transmission and Related Charges

The Customer shall compensate the Authority for the following NYISO transmission and related charges (collectively, "NYISO Charges") assessed on the Authority for services provided by the NYISO pursuant to its OATT or other tariffs (as the provisions of those tariffs may be amended and in effect from time to time) associated with providing Electric Service to the Customer:

- A. Ancillary Services 1 through 6 and any new ancillary services as may be defined and included in the OATT from time to time;
- B. Marginal losses;
- C. The New York Power Authority Transmission Adjustment Charge ("NTAC");
- D. Congestion costs inclusive of any rents collected or owed due to any associated grandfathered transmission congestion contracts as provided in Attachment K of the OATT;
- E. Any and all other charges, assessments, or other amounts associated with deliveries to Customers or otherwise associated with the Authority's responsibilities as a Load Serving Entity for the Customers that are assessed on the Authority by the NYISO under the provisions of its OATT or under other applicable tariffs; and

- F. Any charges assessed on the Authority with respect to the provision of Electric Service to Customers for facilities needed to maintain reliability and incurred in connection with the NYISO's Comprehensive System Planning Process (or similar reliability-related obligations incurred by the Authority with respect to Electric Service to the Customer), applicable tariffs, or required to be paid by the Authority in accordance with law, regardless of whether such charges are assessed by the NYISO or another party.

The NYISO Charges, if any, incurred by the Authority on behalf of the Customer, are in addition to the Authority production charges that are charged to the Customer in accordance with other provisions of this Service Tariff.

The method of billing NYISO charges to the Customer will be based on Authority's discretion.

4. Taxes Defined

Taxes shall be any adjustment as the Authority deems necessary to recover from the Customer any taxes, assessments or any other charges mandated by federal, state or local agencies or authorities that are levied on the Authority or that the Authority is required to collect from the Customer if and to the extent such taxes, assessments or charges are not recovered by the Authority pursuant to another provision of this Service Tariff.

5. Substitute Energy

The Customer shall pay for Substitute Energy, if applicable, as specified in the Agreement.

6. Payment Information

Bills computed under this Service Tariff are due and payable by electronic wire transfer in accordance with the Rules. Such wire transfer shall be made to J P Morgan Chase NY, NY / ABA021000021 / NYPA A/C # 008-030383, unless otherwise indicated in writing by the Authority. The Authority may in its discretion change the foregoing account and routing information upon notice to the Customer.

7. Billing Disputes

In the event that there is a dispute on any items of a bill rendered by the Authority, the Customer shall pay such bill in full. If necessary, any adjustments will be made thereafter.

G. Rendition and Payment of Bills

1. The Authority will render bills to the Customer for Electric Service on or before the tenth (10th) business day of the month for charges due for the previous Billing Period. Such bills shall include charges for Electric Service, NYISO Charges associated with the Allocation (subject to adjustment consistent with any later NYISO re-billings to the Authority), and all other applicable charges, and are subject to adjustment as provided for in the Agreement, the Service Tariff and the Rules.
2. The Authority will charge and collect from the Customer all Taxes (including local, state and federal taxes) the Authority determines are applicable, unless the Customer furnishes the Authority with proof satisfactory to the Authority that (i) the Customer is exempt from the payment of any such Taxes, and/or (ii) the Authority is not obligated to collect such Taxes from the Customer. If the Authority is not collecting Taxes from the Customer based on the circumstances described in (i) or (ii) above, the Customer shall immediately inform the Authority of any change in circumstances relating to its tax status that would require the Authority to charge and collect such Taxes from the Customer.
3. Unless otherwise agreed to by the Authority and the Customer in writing, the Authority will render bills to the Customer electronically.
4. Payment of bills by the Customer shall be due and payable by the Customer within twenty (20) days of the date the Authority renders the bill.
5. Except as otherwise agreed by the Authority in writing, if the Customer fails to pay any bill when due an interest charge of two percent of the amount unpaid will be added thereto as liquidated damages, and thereafter, as further liquidated damages, an additional interest charge of one and one-half percent of the sum unpaid shall be added on the first day of each succeeding Billing Period until the amount due, including interest, is paid in full.
6. If at any time after commencement of Electric Service the Customer fails to make complete payment of any two (2) bills for Electric Service when such bills become due pursuant to Agreement, the Authority shall have the right to require that the Customer deposit with the Authority a sum of money in an amount equal to all charges that would be due under this Agreement for Electric Service for two (2) consecutive calendar months as estimated by the Authority. Such deposit will be deemed security for the payment of unpaid bills and/or other claims of the Authority against the Customer upon termination of Electric Service. The failure or refusal of the Customer to provide the deposit within thirty (30) days of a request for such deposit will be grounds for the Authority in its discretion to suspend Electric Service to the Customer or terminate the Agreement.

Unless otherwise agreed to by the Authority and the Customer in writing, in the event the Customer disputes any item of any bill rendered by Authority, the Customer shall pay such bill in full within the time provided for by this Agreement, and adjustments, if appropriate, will be made thereafter.

H. Adjustment of Charges – Distribution Losses

The Authority will make appropriate adjustments to compensate for distribution losses of the local electric utility.

I. Conflicts

In the event of any inconsistencies, conflicts, or differences between the provisions of this Service Tariff and the Rules, the provisions of this Service Tariff shall govern. In the event of any inconsistencies, conflicts or differences between the provisions of the Agreement and this Service Tariff or the Rules, the provisions of the Agreement shall govern.

V. Annual Adjustment Factor

A. Adjustment of Rates

1. The AAF will be based upon a weighted average of three indices described below. For each new Rate Year, the index value for the latest available calendar year ("Index Value for the Measuring Year") will be compared to the index value for the calendar year immediately preceding the latest available calendar year (the Index Value for the Measuring Year -1"). The change for each index will then be multiplied by the indicated weights. As described in detail below, these products are then summed, producing the AAF. The AAF will be multiplied by the base rate for the current Rate Year to produce the base rates for the new Rate Year, subject to a maximum adjustment of $\pm 5.0\%$ (" $\pm 5\%$ Collar"). Amounts outside the $\pm 5\%$ Collar shall be referred to as the "Excess."

Index 1, "BLS Industrial Power Price" (35% weight): The average of the monthly Producer Price Index for Industrial Electric Power, commodity code number 0543, not seasonally adjusted, as reported by the U.S. Department of Labor, Bureau of Labor Statistics ("BLS") electronically on its internet site and consistent with its printed publication, "Producer Price Index Detailed Report". For Index 1, the Index Value for the Measuring Year will be the index for the calendar year immediately preceding July 1 of the new Rate Year.

Index 2, "EIA Average Industrial Power Price" (40% weight): The average weighted annual price (as measured in cents/kWh) for electric sales to the industrial sector in the ten states of CT, MA, ME, NH, NJ, NY, OH, PA, RI and VT ("Selected States") as reported by Coal and Electric Data and Renewables Division; Office of Coal, Nuclear, Electric and Alternate Fuels; Energy Information Administration ("EIA"); U.S. Department of Energy Form EIA-861 Final Data File. For Index 2, the Index Value for the Measuring Year will be the index for the calendar year two years preceding July 1 of the new Rate Year.

Index 3, "BLS Industrial Commodities Price Less Fuel" (25% weight): The monthly average of the Producer Price Index for Industrial Commodities less fuel, commodity code number 03T15M05, not seasonally adjusted, as reported by the U.S. Department of Labor, BLS electronically on its internet site and consistent with its printed publication, "Producer Price Index Detailed Report". For Index 3, the Index Value for the Measuring Year will be the index for the calendar year immediately preceding July 1 of the new Rate Year.

2. Annual Adjustment Factor Computation Guide

- Step 1: For each of the three Indices, divide the Index Value for Measuring Year by the Index Value for the Measuring Year-1.
- Step 2: Multiply the ratios determined in Step 1 by percentage weights for each Index. Sum the results to determine the weighted average. This is the AAF.
- Step 3: Commencing RY 2014, modifications to the AAF will be subject to $\pm 5\%$ Collar, as described below.
- a) When the AAF falls outside the $\pm 5\%$ Collar, the Excess will be carried over to the subsequent RY. If the AAF in the subsequent RY is within the $\pm 5\%$ Collar, the current RY Excess will be added to/subtracted from the subsequent Rate Year's AAF, up to the $\pm 5\%$ Collar.

- b) Excesses will continue to accrue without limit and carry over such that they will be added to/subtracted from the AAF in any year where the AAF is within the $\pm 5\%$ Collar.

Step 4: Multiply the current Rate Year base rate by the AAF calculated in Step 2 to determine the new Rate Year base rate.

The foregoing calculation shall be performed by the Authority consistent with the sample presented in Section V.B below.

3. Subject to the provisions of Section III.A of this Service Tariff, the Authority shall provide the Customer with notice of any adjustment to the current base rate per the above and with all data and calculations necessary to compute such adjustment by June 15th of each year to be effective on July 1 of such year, commencing in 2014. The values of the latest officially published (electronically or otherwise) versions of the indices and data provided by the BLS and EIA as of June 1 shall be used notwithstanding any subsequent revisions to the indices.
4. If during the term of the Agreement any of the three above indices ceases to be available or ceases to be reflective of the relevant factors or of changes which the indices were intended to reflect, the Customer and the Authority may mutually select a substitute Index. The Customer and the Authority agree to mutually select substitute indices within 90 days, once one of them is notified by the other that the indices are no longer available or no longer reflect the relevant factors or changes which the indices were intended to reflect. Should the 90-day period cover a planned July 1 rate change, the current base rates will remain in effect until substitute indices are selected and the adjusted rates based on the substitute indices will be retroactive to the previous July 1. If the Customer and Authority are unable to reach agreement on substitute indices within the 90-day period, the Customer and the Authority agree to substitute the mathematic average of the PPI—Intermediate Materials, Supplies and Components (BLS Series ID WPUSOP2000) and the PPI-- Finished Goods (BLS Series ID WPUSOP3000) indices for one or more indices that have ceased to be available or reflective of their intended purpose and shall assume the percentage weighting(s) of the one or more discontinued indices as indicated in Section V.A.1.

B. Sample Computation of the AAF (hypothetical values for July 1, 2014 implementation):

STEP 1

Determine the Index Value for the Measuring Year (MY) and Measuring Year - 1 (MY-1) for Each Index

- Index 1 - Producer Price Index, Industrial Power

	Measuring Year <u>(2013)</u>	Measuring Year - 1 <u>(2012)</u>
January	171.2	167.8
February	172.8	167.6
March	171.6	168.2
April	173.8	168.6
May	175.1	171.6
June	185.7	180.1
July	186.4	182.7
August	184.7	179.2
September	185.5	181.8
October	175.5	170.2
November	172.2	168.8
December	171.8	166.6
Average	177.2	172.8
Ratio of MY/MY-1		1.03

- Index 2 – EIA Industrial Rate

<u>State</u>	<u>Revenues</u> ((\$000s))	<u>Sales</u> (MWh)	<u>Avg. Rate</u> (cents/kWh)
<u>Measuring Year (2012)</u>			
CT	590,972	6,814,757	
MA	1,109,723	13,053,806	
ME	328,594	4,896,176	
NH	304,363	2,874,495	
NJ	1,412,665	15,687,873	
NY	2,001,588	26,379,314	
OH	3,695,978	78,496,166	
PA	3,682,192	63,413,968	
RI	152,533	1,652,593	
VT	<u>155,903</u>	<u>2,173,679</u>	
TOTAL	13,434,511	215,442,827	6.24

Measuring Year -1 (2011)

CT	579,153	6,678,462	
MA	1,076,431	12,662,192	
ME	310,521	4,626,886	
NH	298,276	2,817,005	
NJ	1,370,285	15,217,237	
NY	1,891,501	24,928,452	
OH	3,622,058	76,926,243	
PA	3,571,726	61,511,549	
RI	144,144	1,561,700	
VT	<u>152,785</u>	<u>2,130,205</u>	
TOTAL	13,016,880	209,059,931	6.23

Ratio of MY/MY-1 **1.00**

- Index 3 – Producer Price Index, Industrial Commodities Less Fuel

	Measuring Year (2013)	Measuring Year -1 (2012)
January	190.1	187.2
February	190.9	188.0
March	191.6	188.7
April	192.8	189.9
May	194.7	191.8
June	195.2	192.3
July	195.5	192.3
August	196.0	193.1
September	196.1	193.2
October	196.2	193.8
November	196.6	193.7
December	196.7	194.0
Average	194.4	191.5
Ratio of MY/MY-1		1.02

STEP 2

Determine AAF by Summing the Weighted Indices

<u>Index</u>	<u>Ratio of MY to MY-1</u>	<u>Weight</u>	<u>Weighted Factors</u>
PPI Industrial Power	1.03	0.35	0.361
EIA Industrial Rate	1.00	0.40	0.400
PPI Industrial Commodities less fuel	1.02	0.25	<u>0.255</u>
AAF			1.016

STEP 3

Apply Collar of $\pm 5.0\%$ to Determine the Maximum/Minimum AAF.

$-5.0\% < 1.6\% < 5.0\%$; collar does not apply, assuming no cumulative excess.

STEP 4

Apply AAF to Calculate the New Rate Year Base Rate

	<u>Demand</u> \$/kW-mo.	<u>Energy</u> \$/MWh
Current Rate Year Base Rate	7.56	12.91
New Rate Year Base Rate	7.68	13.12

Exhibit 4b ii-C
December 11, 2019

*New York State Power Authority
Public Hearing*

September 30, 2019



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1
2 New York State Power Authority

3 535 Washington Street

4 Suite 202

5 Buffalo, New York 14203

6 Monday, September 30, 2019

7 2:00 p.m. - 6:00 p.m.

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21
22 Patricia A. Schreier
23

1 SPEAKERS:

2 MS. DELINCE 3,8
3 (via video conference)
4 MR. SMITH 5

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1 MS. DELINCE: Good afternoon. This is a public
2 hearing required by law and authorized by the New York
3 Power Authority's Board of Trustees on the proposed
4 Customer contract for the sale of hydropower to Somerset
5 Operating Company, LLC.

6 My name is Karen Delince and I am the Authority's
7 Corporate Secretary.

8 New York State Public Authorities Law, Section 1009
9 sets forth procedures for executing certain contracts
10 negotiated by the Authority.

11 First, prior to the hearing, it requires that
12 notice of the hearing be provided. Therefore, a notice
13 was sent to the Governor, the Senate's President Pro
14 Temp, the Senate Minority Leader and the Senate Finance
15 Committee Chair, the Assembly Speaker, the Assembly
16 Minority Leader and the Assembly Ways and Means
17 Committee Chair.

18 In addition, notices appeared once a week, for the
19 four weeks leading up to this hearing in the following
20 newspapers; Niagara Gazette, Buffalo News, Buffalo
21 Business First, Lewiston Porter Sentinel, Albany Times-
22 Union and Dunkirk Observer.

23 The public was also given access to the proposed

1 contract on the Authority's website and at the
2 Authority's White Plains office during the 30 day period
3 prior to today's hearing.

4 After the hearing, the public will be given access
5 to the hearing transcript, once it is completed, at
6 www.nypa.gov and at the White Plains office.

7 The next step in the process set forth in Section
8 1009 will be for the NYPA Trustees to reconsider the
9 proposed contract in light of public comments.

10 Once the Trustees have completed their final
11 review, the contract will be forwarded to the Governor
12 for his consideration and approval.

13 If you plan to make an oral statement at this
14 hearing, I ask that you so indicate on the sign-in
15 sheet.

16 Also, if you have a written statement, please give
17 a copy to Richard Smith and one to the reporter.

18 Written statements may be of any length and will
19 appear in the record of the hearing in addition to oral
20 statements.

21 The record of the hearing will remain open for any
22 additional comments through close of business, Tuesday,
23 October 1st, 2019.

1 Additional comments should be mailed, faxed or
2 e-mailed to the Corporate Secretary at 123 Main Street,
3 9-B, White Plains, New York 10601 or (914)390-8040 or
4 secretarys.office@nypa.gov.

5 At this point I would like to introduce Mr. Richard
6 Smith, the Authority's Director of Economic Development,
7 who will provide additional details on the proposed
8 Customer Contract. Thank you.

9 Mr. Smith.

10 MR. SMITH: Thank you, Ms. Delince.

11 Good afternoon. My name is Rich Smith and I'm the
12 Director of Economic Development within NYPA's Economic
13 Development Department. I'm here today to present a
14 summary of a proposed new contract for a prospective
15 customer here in Western New York, for the sale of
16 hydropower generated at the Niagara Power Project.

17 Regarding the contract, under Public Authority's
18 Law Section 1005 Subsection 13, the Authority may
19 allocate and sell directly or by sale-for-resale 250
20 megawatts of Expansion Power, known as EP, and 445
21 megawatts of Replacement Power, known as RP, to
22 businesses located within 30 miles of the Niagara Power
23 Project, provided that the amount of EP allocated to

1 businesses in Chautauqua County on January 1st, 1987
2 shall continue to be allocated in Chautauqua County.

3 Somerset Operating Company, LLC was awarded a new
4 10,000 kilowatt hydropower allocation by the Authority's
5 Trustees on July 30, 2019 in return for commitments made
6 to create their business in Western New York.

7 Specifically, Somerset is a new company formed to
8 support construction of a proposed Empire State Data Hub
9 at a site in the Town of Barker, Niagara County. The
10 term of the RP allocation would be 10 years.

11 Somerset has agreed to create and maintain at least
12 165 full-time employees at its Barker facilities and
13 will commit to make capital investments of at least
14 \$85 million at its facilities, over the term of the
15 allocation.

16 The following is a summary of a few of the
17 pertinent provisions in the proposed contract.

18 The contract provides for the direct billing of all
19 hydropower supply charges and all New York Independent
20 System Operator, Inc. charges and taxes.

21 The contract includes the customers' agreed upon
22 commitments with respect to employment, capital
23 investment and power utilization.

1 Under the contract, the Authority may reduce or
2 terminate the allocation if employment, power
3 utilization or capital commitments are not met.

4 Relatedly, the contract includes an annual job
5 reporting requirement and a job compliance threshold of
6 90 percent. Should the company's average annual
7 employment fall below the compliance threshold of
8 90 percent of the employment commitment, the Authority
9 may reduce the amount of the allocation.

10 The contract provides for the company to perform an
11 energy audit at its facility at least once within five
12 years, helping to ensure that customers use the
13 hydropower efficiently.

14 To address nonpayment risk that could result from
15 the direct billing arrangement, the contract includes
16 commercially reasonable provisions concerning the
17 Authority's ability to charge late payment fees and to
18 require deposits in the event of the customer's failure
19 to make payment for any two monthly bills. These
20 contract provisions are consistent with other Authority
21 direct sale contracts, including the Recharge New York
22 sales contracts.

23 The contract provides for collection of a Zero

1 Emission Credit charge and a Renewable Energy Credit
2 charge to allow the Authority to recover costs it would
3 incur relating to its purchase of Zero Emission Credits
4 and Renewable Energy Credits attributable to the
5 customer's load.

6 The contract will address the allocation, along
7 with the Authority's Service Tariff WNY-2, which
8 specifies rates and other terms applicable to other EP
9 and RP allocations.

10 Lastly, transmission and delivery service for the
11 allocation will be provided by National Grid or NYSEG in
12 accordance with the utilities' Public Service Commission
13 approved delivery service tariffs.

14 As Ms. Delince stated earlier, the Authority will
15 accept your comments on the proposed contract until the
16 close of business on Tuesday, October 1st.

17 I will now turn the hearing back to Ms. Delince.

18 MS. DELINCE: Thank you, Mr. Smith. At this
19 point I would like to call on speakers who have signed
20 in.

21 Mr. Smith, are there any speakers present at your
22 location who wish to provide a statement?

23 MR. SMITH: There are none, Ms. Delince.

1 MS. DELINCE: In that case, we will recess and
2 reconvene when speakers arrive.

3 MR. SMITH: Thank you.

4 (recess)

5 MS. DELINCE: The September 30th, 2019 public
6 hearing on the proposed Customer Contract for the sale
7 of hydropower to Somerset Operating Company, LLC is now
8 officially closed.

9 As I previously stated, the record of the hearing
10 will remain open for any additional comments through
11 close of business, Tuesday, October 1, 2019.

12 Thank you and good night.

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14 (Hearing concluded at 6:03 p.m)
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1 STATE OF NEW YORK
2 COUNTY OF ERIE

3 I, Patricia A. Schreier, a Notary Public in and for
4 the State of New York, do hereby certify:

5 That the witness, whose testimony appears herein
6 before, was, before the commencement of his testimony, duly
7 sworn to testify the truth, the whole truth and nothing but
8 the truth; that such testimony was taken pursuant to notice at
9 the time and place herein set forth; that said testimony was
10 taken down in shorthand by me and thereafter under my
11 supervision transcribed into the English language, and hereby
12 certify the foregoing testimony is a full, true and correct
13 transcription of the shorthand notes so taken.

14 I further certify that I am neither counsel for nor
15 related to any parties to said action, nor in anywise
16 interested in the outcome thereof.

17 IN WITNESS WHEREOF, I have here unto subscribed my
18 name this 10th day of October, 2019.

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Notary Public
State of New York

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Procurement (Services) and Other Contracts – Awards
(For Description of Contracts See "Discussion")

EXHIBIT "A"
December 11, 2019

<u>Plant Site</u>	<u>Company Contract #</u>	<u>Start of Contract</u>	<u>Description of Contract</u>	<u>Closing Date</u>	<u>Award Basis¹ Contract Type²</u>	<u>Compensation Limit</u>	<u>Amount Expended To Date</u>	<u>Expected Expenditures For Life Of Contract</u>
COMMERCIAL OPERATIONS - ENERGY SERVICES PRODUCT DEVELOPMENT	Q19-6790JGM; 2 Awards 1. OVE ARUP & PARTNERS P.C. New York, NY (4600003783) 2. UNGER SECURITY SOLUTIONS LLC Knoxville, MD (4600003777)	11/25/19	Provide design build advisory services	11/24/24	B/P	\$200,000		\$ 2 million*
*Note: represents total aggregate value for up to 5-year term including an interim value of \$200,000								
COMMERCIAL OPERATIONS - STRATEGY PLANNING – EV TECHNOLOGY & ENGINEERING	Q19-6686MH; 10 Awards 1. AECOM USA, INC. New York, NY (4600003719) 2. AKIMEKA LLC Maitland, FL (4600003724) 3. BURNS & MCDONNELL CONSULTANTS, INC. dba BURNS & MCDONNELL CONSULTANTS P.C. Kansas City, MO (4600003718) 4. DNV KEMA RENEWABLES, INC. Katy, TX (4600003762) 5. ENERGY AND ENVIRONMENTAL ECONOMICS, INC. San Francisco, CA (4600003725)	11/01/19	Provide consulting services in support of the EVolve NY Program	10/31/24	B/P	\$500,000		\$ 2 million*

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 2 Contract Type: P= Personal Service; S= (Non-Personal) Service; C= Construction; E= Equipment; N= Non-Procurement; A= Architectural & Engineering Service; L= Legal Service

Procurement (Services) and Other Contracts – Awards
(For Description of Contracts See "Discussion")

EXHIBIT "A"
December 11, 2019

<u>Plant Site</u>	<u>Company Contract #</u>	<u>Start of Contract</u>	<u>Description of Contract</u>	<u>Closing Date</u>	<u>Award Basis¹ Contract Type²</u>	<u>Compensation Limit</u>	<u>Amount Expended To Date</u>	<u>Expected Expenditures For Life Of Contract</u>
	6. M.J. BRADLEY & ASSOCIATES LLC Concord, MA (4600003715)							
	7. NAVIGANT CONSULTING, INC. Chicago, IL (4600003720)							
	8. VERMONT ENERGY INVESTMENT CORPORATION Burlington, VT (4600003723)							
	9. WEST MONROE PARTNERS LLC Chicago, IL (4600003717)							
	10. WESTERN POWER PROJECT ADVISORS ♦ Cerritos, CA (4600003716)							
								*Note: represents total aggregate value for up to 5-year term including an interim value \$500,000
HUMAN RESOURCES & ADMINISTRATION - ORGANIZATIONAL DEVELOPMENT	MERCER (US), INC. dba MERCER HEALTH & BENEFITS LLC Chicago, IL (Q19-6714RM)	12/11/19 (on or about)	Provide workforce planning consulting services	12/10/24	B/P			\$ 2.2 million*
								*Note: represents total for up to 5-year term, a 3-year term with option to extend for 2-years
HUMAN RESOURCES & ADMINISTRATION - TOTAL AWARDS	TOTAL ADMINISTRATIVE SERVICES CORPORATION dba TASC Madison, WI (Q19-6728JW)	01/01/20	Provide COBRA administration services	12/31/24	B/P			\$ 105,000*
								*Note: represents total for up to 5-year term

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Procurement (Services) and Other Contracts – Awards
(For Description of Contracts See "Discussion")

EXHIBIT "A"
December 11, 2019

<u>Plant Site</u>	<u>Company Contract #</u>	<u>Start of Contract</u>	<u>Description of Contract</u>	<u>Closing Date</u>	<u>Award Basis¹ Contract Type²</u>	<u>Compensation Limit</u>	<u>Amount Expended To Date</u>	<u>Expected Expenditures For Life Of Contract</u>
STRATEGY PLANNING - STRATEGY & CORPORATE DEVELOPMENT	Q19-6727RM; 2 Awards	12/11/19 (on or about)	Provide Climate Change Education Partnership with Academic Institution services	12/10/24	B/P			\$ 2 million*
	1.a. CLARKSON UNIVERSITY Potsdam, NY							
	1.b. STATE UNIVERSITY OF NEW YORK COLLEGE OF ENVIRONMENTAL SCIENCE AND FORESTRY Syracuse, NY							
	2. CORNELL UNIVERSITY dba CORNELL LOCAL ROADS PROGRAM Ithaca, NY							
							*Note: represents total aggregate value for up to 5-year term	
UTILITY OPERATIONS - CIVIL / STRUCTURAL ENGINEERING	Q19-6793CC; 3 Awards	01/01/20	Provide Bridge Inspection services	12/31/24	B/P			\$ 2 million*
	1. CHA CONSULTING, INC. Albany, NY							
	2. GREENMAN-PEDERSEN, INC. Montebello, NY							
	3. M.J. ENGINEERING AND LAND SURVEYING P.C. Clifton Park, NY							
							*Note: represents total aggregate value for up to 5-year term	
UTILITY OPERATIONS - CIVIL / STRUCTURAL ENGINEERING	Q19-6789DKT; 2 Awards	12/11/19 (on or about)	Provide underwater inspection services	12/10/24	B/S			\$ 3 million*
	1. HOHL INDUSTRIAL SERVICES, INC. Tonawanda, NY							

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Procurement (Services) and Other Contracts – Awards
(For Description of Contracts See "Discussion")

EXHIBIT "A"
December 11, 2019

<u>Plant Site</u>	<u>Company Contract #</u>	<u>Start of Contract</u>	<u>Description of Contract</u>	<u>Closing Date</u>	<u>Award Basis¹ Contract Type²</u>	<u>Compensation Limit</u>	<u>Amount Expended To Date</u>	<u>Expected Expenditures For Life Of Contract</u>
	2. M.G. MCLAREN P.C. dba MCLAREN ENGINEERING GROUP West Nyack, NY						*Note: represents total aggregate value for up to 5-year term	
UTILITY OPERATIONS - ENVIRONMENTAL OPERATIONS	Q19-6807CC; 5 Awards 1. AECOM USA, INC. New York, NY (4600003779) 2. HARTGEN ARCHEOLOGICAL ASSOCIATES, INC. Rensselaer, NY (4600003778) 3. LANDMARK ARCHEOLOGY, INC. ♦ Altamont, NY (4600003781) 4. RICHARD GRUBB AND ASSOCIATES, INC. dba RGA, INC. ♦ Cranbury, NJ (4600003782) 5. THE LOUIS BERGER GROUP (DOMESTIC), INC. Morristown, NJ (4600003780)	11/01/19	Provide General Cultural Resources services	10/31/24	B/P	\$30,000		\$ 1.75 million*
							*Note: represents total aggregate value for up to 5-year term including an interim value \$30,000	

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2 Contract Type: P= Personal Service; S= (Non-Personal) Service; C= Construction; E= Equipment; N= Non-Procurement; A= Architectural & Engineering Service; L= Legal Service

Procurement (Services) and Other Contracts – Awards
(For Description of Contracts See "Discussion")

EXHIBIT "A"
December 11, 2019

<u>Plant Site</u>	<u>Company Contract #</u>	<u>Start of Contract</u>	<u>Description of Contract</u>	<u>Closing Date</u>	<u>Award Basis¹ Contract Type²</u>	<u>Compensation Limit</u>	<u>Amount Expended To Date</u>	<u>Expected Expenditures For Life Of Contract</u>
UTILITY OPERATIONS - ENVIRONMENTAL OPERATIONS	Q19-6773DK; 2 Awards 1. ABSCOPE ENVIRONMENTAL, INC. Canastota, NY (4600003743) 2. NRC NY ENVIRONMENTAL SERVICES, INC. Great River, NY (4600003744)	10/15/19	Provide for the Planned and Emergency Response Abatement of Asbestos, Lead and PCB services	10/14/24	B/C	\$150,000		\$ 3.5 million*
							*Note: represents total aggregate value for up to 5-year term including an interim value \$150,000	
UTILITY OPERATIONS – FACILITY MANAGEMENT	CORE FACILITY SERVICES LLC New York, NY (4600003766)	10/01/19	Provide contract administration for the Operating Engineers/Electricians for the Clarence D. Rappleyea Building in White Plains	09/30/24	B/S	\$500,000		\$ 9.25 million*
							*Note: represents total for up to 5-year term including an interim value of \$500,000	
UTILITY OPERATIONS – GENERAL MAINTENANCE	CASELLA WASTE MANAGEMENT OF NEW YORK, INC., dba NORTHERN SANITATION Plattsburgh, NY (6000184705)	12/11/19 (on or about)	Provide refuse services for the Plattsburgh Substation	12/10/22	B/S			\$ 20,000*
							*Note: represents total for up to 3-year term	
UTILITY OPERATIONS – PROJECT MANAGEMENT	WASTE-STREAM, INC. dba CASELLA RESOURCE SOLUTIONS Williston, VT (Q19-6734MR)	12/11/19 (on or about)	Provide disposal of treated wood poles	12/10/24	B/S			\$ 1 million*
							*Note: represents total for up to 5-year term	
UTILITY OPERATIONS – SAFETY	JOHNSON CONTROLS FIRE PROTECTION LP Williamsville, NY (N19-20141577GJ)	01/01/20	Provide inspection, testing and maintenance services for various fire protection systems	12/31/24	B/S			\$ 500,000*
							*Note: represents total for up to 5-year term	

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2 **Contract Type:** P= Personal Service; S= (Non-Personal) Service; C= Construction; E= Equipment; N= Non-Procurement; A= Architectural & Engineering Service; L= Legal Service

Procurement (Services) and Other Contracts – Awards
(For Description of Contracts See "Discussion")

EXHIBIT "A"
December 11, 2019

<u>Plant Site</u>	<u>Company Contract #</u>	<u>Start of Contract</u>	<u>Description of Contract</u>	<u>Closing Date</u>	<u>Award Basis¹ Contract Type²</u>	<u>Compensation Limit</u>	<u>Amount Expended To Date</u>	<u>Expected Expenditures For Life Of Contract</u>
UTILITY OPERATIONS - TRANSMISSION	Q19-6765MR; 3 Awards 1. CHA CONSULTING, INC. Albany, NY 2. POWER ENGINEERS CONSULTING P.C. Hailey, ID 3. UNDERGROUND SYSTEMS, INC. Bethel, CT	12/11/19 (on or about)	Provide underground transmission line assessments and capital program planning	12/10/22	B/P			\$2,390,544.45*
							*Note: represents total aggregate value for a 3-year term	

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 2 Contract Type: P= Personal Service; S= (Non-Personal) Service; C= Construction; E= Equipment; N= Non-Procurement; A= Architectural & Engineering Service; L= Legal Service

Procurement (Services) Contracts – Extensions and/or Additional Funding
(For Description of Contracts See "Discussion")

EXHIBIT "B"
December 11, 2019

<u>Plant Site/ Bus. Unit</u>	<u>Company Contract #</u>	<u>Start of Contract</u>	<u>Description of Contract</u>	<u>Closing Date</u>	<u>Award Basis¹ Contract Type²</u>	<u>Compensation Limit</u>	<u>Amount Expended To Date</u>	<u>Authorized Expenditures For Life Of Contract</u>
COMMERCIAL OPERATIONS - MARKET ISSUES	BALCH & BINGHAM LLP Birmingham, AL (4500311909)	05/22/19	Provide legal services	05/21/22	Si/L		\$ 33,189.81	\$ 590,000*
*Note: represents target value for the 3-year term, with additional funding of \$500,000 and 2-year extension requested								
HUMAN RESOURCES & ADMINISTRATION - REAL ESTATE	1. C.T. MALE ASSOCIATES ENGINEERING, SURVEYING, ARCHITECTURE, LANDSCAPE ARCHITECTURE & GEOLOGY, D.P.C. Latham, NY (4600003417)	12/12/17	Provide survey and mapping services	12/11/22	B/P		\$ 451,173.76	\$11,875,000*
	2. FISHER ASSOCIATES, P.E., L.S., L.A., D.P.C. Rochester, NY (4600003415)						\$ 3,360,655.46	
	3. GOED CORPORATION Newfoundland, NJ (4600003420)						\$ 75,273.01	
*Note: represents total for 5-year term, with additional funding of \$2,375,000								
LAW - CONTRACTS, LICENSING & ENVIRONMENTAL	KATTEN MUCHIN ROSENMAN LLP Chicago, IL , (4500306938)	01/14/19	Provide legal services	01/13/21	Si/L	\$100,000	\$ 134,747.93	\$ 275,000*
*Note: represents total value for the 2-year term, with additional funding of \$200,000 with \$100,000 interim and 1-year extension requested								

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2 **Contract Type:** P= Personal Service; S= (Non-Personal) Service; C= Construction; E= Equipment; N= Non-Procurement; L= Legal Service

Procurement (Services) Contracts – Extensions and/or Additional Funding
(For Description of Contracts See "Discussion")

EXHIBIT "B"
December 11, 2019

<u>Plant Site/ Bus. Unit</u>	<u>Company Contract #</u>	<u>Start of Contract</u>	<u>Description of Contract</u>	<u>Closing Date</u>	<u>Award Basis¹ Contract Type²</u>	<u>Compensation Limit</u>	<u>Amount Expended To Date</u>	<u>Authorized Expenditures For Life Of Contract</u>
LAW - CONTRACTS, LICENSING & ENVIRONMENTAL	TROUTMAN SANDERS LLP Atlanta, GA (4500303845)	11/12/18	Provide legal services	11/11/22	Si/L	\$35,000	\$ 48,007.50	\$ 700,000*
*Note: represents total value for the 4-year term, with additional funding of \$600,000 with \$35,000 interim and 3-year extension requested								
UTILITY OPERATIONS – FACILITY MANAGEMENT	MICHAEL BELLANTONI, INC. White Plains, NY (4600002942)	05/12/15	Provide landscaping services for NYPA's White Plains Office thru the entire 2020-2021 landscaping season	12/31/21	B/S		\$ 384,000	\$ 480,000*
*Note: represents total for 6-year and 7-month term, with no additional funding and a 1-year and 7-month extension requested								
UTILITY OPERATIONS – PROJECT MANAGEMENT	THE LUMRY COMPANY, INC. Golden Canyon, AZ (4600003585)	01/22/19	Provide independent helicopter support review services	07/21/20	B/P		\$ 407,911.43	\$ 800,000*
*Note: represents total for up to 1-year and 6-month term, including additional funding request of \$300,000 and 6-month extension								
UTILITY OPERATIONS – PROJECT MANAGEMENT	PERRAS EXCAVATING, INC. Massena, NY (4500304517)	01/07/19	Provide construction services on the St. Lawrence Control Room upgrades	11/30/20	B/C		\$ 659,260.74	\$ 907,987*
*Note: represents total for up to 1-year and 11-month term, no additional funding requested								
UTILITY OPERATIONS – PROJECT MANAGEMENT	SECURITAS ELECTRONIC SECURITY, INC. Uniontown, OH (4500303394)	11/20/18	Provide added time to complete exterior fencing	11/3/20	B/C		\$ 238,064.27	\$390,703.45*
*Note: represents total for up to 2-year term, including a one-year extension request including the interim period of November 20, 2019 through December 11, 2019; no additional funding requested								

♦ **M / WBE:** New York State-certified Minority / Women-owned Business Enterprise (indicated by the ♦ symbol after the Company Name)
1 Award Basis: B= Competitive Bid; C= Competitive Search; S= Sole Source; Si = Single Source
2 Contract Type: P= Personal Service; S= (Non-Personal) Service; C= Construction; E= Equipment; N= Non-Procurement; L= Legal Service



**NY Power
Authority**

**Canal
Corporation**

Exhibit 5a i-A
December 11, 2019

President and CEO Report

Gil Quiniones

President & Chief Executive Officer

December 11, 2019

NYPA Overall Performance - October 2019

	<u>YTD Target</u>	<u>YTD Actual</u>
Maintain Infrastructure		
▲ Generation Market Readiness	97.40%	▲ 99.72%
▲ Transmission System Reliability	94.96%	▲ 96.34%
Financial Management		
▲ Debt Coverage Ratio (Q)	2.50	▲ 4.65
▲ O&M Budget Performance (\$M)	\$423.10	▲ \$418.35
Energy Services		
● Greenhouse Gas (GHG) Saved (Tons)	36,345	● 28,537
▲ Energy Efficiency Investment in State Facilities (\$M)	\$104.78	▲ \$118.02
Workforce Management		
▲ Skilled Workforce: Retention (Q)	1,448	▲ 2,093
Safety Leadership		
■ DART Rate	0.78	■ 0.79
Environmental Responsibility		
▲ Environmental Incidents	23	▲ 15

YTD Performance Measure Status

▲	Meeting or exceeding target
■	Missing target
●	Significantly missing target
◆	No updated data

VISION2030: Proposed Mission and Vision

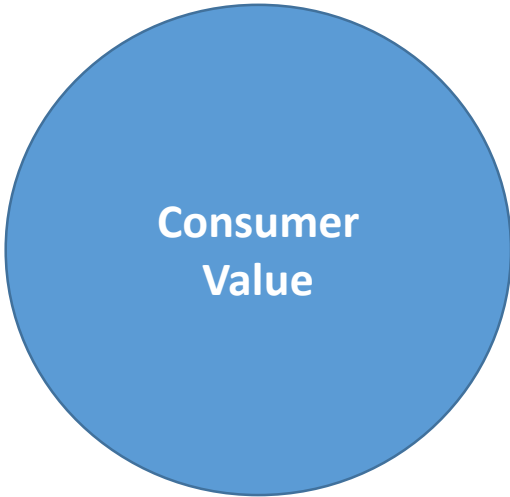
Vision

“A thriving and resilient New York powered by clean energy”

Mission

“Leading the transition to a carbon free, economically vibrant New York through partnership with customers on innovative energy solutions and the responsible supply of affordable, clean, reliable electricity.”

VISION2030: Three Strategic Goals



VISION2030: Strategic Themes

2 Energy Efficiency

Reducing the number of electrons consumed

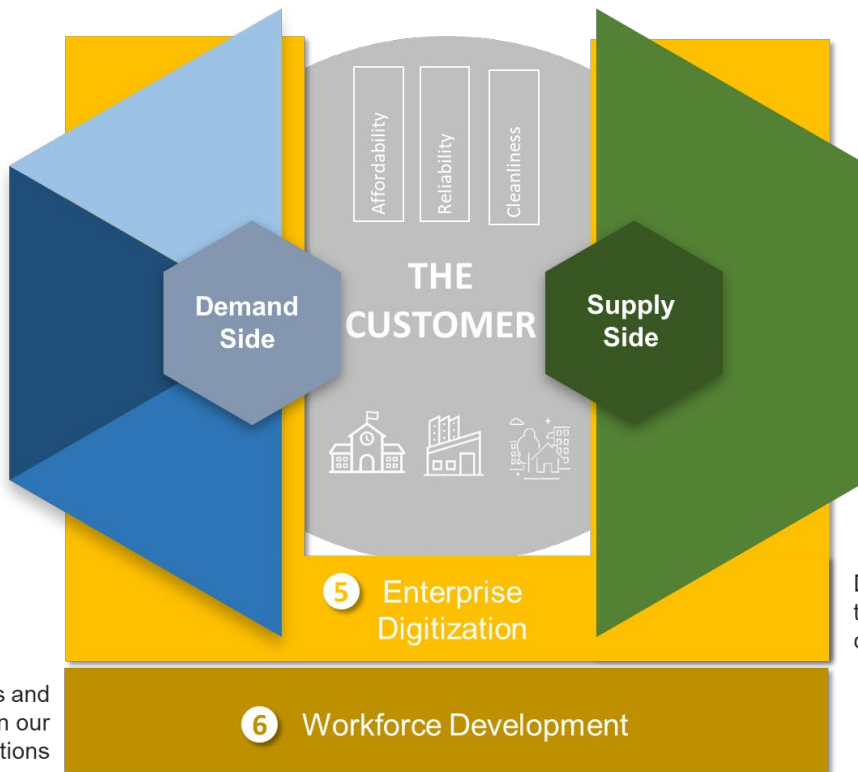
3 Electrification

Optimally integrating new forms of electrical load

4 Demand Flexibility

Building flexibility in customer load & assets

Creating the skills and competencies to deliver on our strategic ambitions



1 Affordable & reliable clean electron supply

- Grid scale generation, transmission & storage
- Distribution and customer sided clean generation
- Renewable energy offsets & credits

Digitally connecting NYPA's end to end operations with our customers energy use

Reimagine the Canals



Objectives

1. Inspire new opportunities for tourism and recreation
2. Strengthen environmental resilience
3. Boost local economies

Reimagine the Canals

- ✓ Reimagine the Canals Competition
- ✓ Reimagine the Canals Task Force Established
- ✓ Community Outreach Meetings & Focus Groups
- Next Steps



Mutual Aid - US Virgin Islands and Puerto Rico



- Stabilize the power system and avoid repeated blackouts
- Develop funding applications for funding to rebuild and harden the power grid
- Develop strategic roadmaps and 10-year investment plans to create cleaner and more resilient utilities
- Technical guidance on distributed energy projects such as solar and energy storage



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Exhibit 5b i-A
December 11, 2019

Chief Operations Officer's Report

Joseph F. Kessler, P.E.

Executive Vice President & Chief Operating Officer

December 11, 2019

Level 1 KPIs: Year-to-Date October 2019

KPI	YTD October 2019			
	Status	Target	Actual	Variance
Generation Market Readiness	▲	97.40%	99.72%	2.32%
Transmission System Reliability	▲	94.96%	96.34%	1.38%
Environmental Incidents (Corporate)	▲	23	15	-8
Dart Rate (Corporate)	■	0.78	0.79	0.01

Status

▲	Within Target
■	Outside of Target
●	Significantly Outside of Target Range

**NY Power
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Utility Operations – December 2019 Trustee Items

Procurement Services Contract Awards – total request of \$169.2 M:

- | | |
|---|-----------|
| • TLEM: Niagara Switchyard | \$29.0 M |
| • TLEM: Niagara 13.8kV Switchgear Replacement | \$25.2 M |
| • Program/Project Management Services | \$100.0 M |
| • Emergency Spill Response Funding Request | \$15.0 M |

Transmission Life Extension & Modernization Program (TLEM)

Background:

- Established to maintain availability, safety, and reliability
- Estimated at \$726 M with planned completed in 2025
- Ongoing program approved and managed in a phased approach
 - Comprised of ~20 projects (substations, switchyard structures, power equipment, infrastructure)
- ~\$342 M spent to date
- Niagara Switchyard LEM
 - Trustees approved \$154.7 M in May 2014
 - ~\$80 M spent to date
 - ~50-60% completed to date



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Requested Trustee Actions – Summary

TLEM: Niagara Switchyard

Ratify the award of a three-year contract to Ferguson Electric Co., Inc. in the amount of \$29 M.

TLEM: Niagara 13.8kV Switchgear Replacement

Approve the award of a three-year contract to Eaton Corporation in the amount of \$25.2 M.

Program/Project Management Services

Approve the award of six on-call value contracts to AECOM USA, Inc., CHA Consulting, Inc., Jacobs Engineering Inc., Jingoli Power, LLC, Power Engineers Consulting, and WSP USA Inc. in the aggregate amount of \$100 M for a five-year term.

Emergency Spill Response Funding Request

Approve the award of five-year term contracts to five emergency response contractors (Clean Harbors Environmental Services, Inc., Miller Environmental Group, National Vacuum Corp., NRC NY Environmental Services, Inc. and WRS Environmental Services, Inc.) in the aggregate amount of \$15 M.



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Exhibit 5c i-A
December 11, 2019






Chief Commercial Officer's Report

Sarah Salati

Executive Vice President & Chief Commercial Officer




December 11, 2019

Commercial Operations KPI – October 2019

GOAL	KPI	YTD October 2019			
		Status	Target	Actual	Variance
Wholesale	Customer Usage (twh)		20.2	20.3	0%
	Generation (twh)		23.0	25.2	10%
	Electric Prices (\$/mwh)		\$34.60	\$26.76	-23%
	Fuel Price (\$/mmbtu)		\$3.88	\$3.11	-20%
	Merchant Gross Margin (\$M)*		\$278.6	\$263.9	-5%

* Excludes Astoria Energy II and NYPA Zeltmann Power Project

Status




	Within Target (>0%)
	Outside of Target (-1% to -10%)
	Significantly Outside Target range (<-11%)






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Commercial Operations KPI – October 2019

GOAL	KPI	YTD October 2019			
		Status	Target	Actual	Variance
Economic Development	Recharge NY (MW) Allocated			717/910	
	All Programs - Jobs Retained			433,800	
	Capital Committed (\$B)			\$28.0	
Energy Efficiency	Customer Investments (\$M)		\$182.9	\$205.7	12%
	Non-Utility Revenues (\$M)		\$14.4	\$21.3	48%
	Operating Expenses (\$M)		\$25.6	\$27.2	6%

Status

	Within Target (>0%)
	Outside of Target (-1% to -10%)
	Significantly Outside Target range (<-11%)



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Economic Development Awards and Allocations

Keith T. Hayes

Senior Vice President, Clean Energy Solutions

December 11, 2019

ReCharge New York Power Allocations

Discussion:

- Out of the 192.9 MW of power remaining in the program:
 - 87.2 MW remain for large business expansion projects,
 - 105.3 MW remain for large business retention, and
 - 0.4 MW are left for small business and not-for-profits.

Requested Trustee Action:

- As recommended by the Economic Development Power Allocation Board on December 6, 2019, the Trustees are requested to approve:
 - Fifteen (15) ReCharge NY allocations totaling 6.5 MW supporting 450 jobs and capital investment commitments of over \$155 M.



**NY Power
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ReCharge New York Power – Allocation Extensions and Modifications

Discussion:

- On April 14, 2011, Governor Andrew M. Cuomo signed into law the RNY Power Program as part of Chapter 60 (Part CC) of the Laws of 2011 (“Chapter 60”).

Requested Trustee Action:

- As recommended by the Economic Development Power Allocation Board on December 6, 2019, the Trustees are requested to approve:
 - Conditional extensions of the term of 3 existing RNY allocations totaling 0.3 MW supporting over 300 jobs and capital investment commitments of \$3 M
 - Modifications to previously approved RNY extension allocations to address adjustments to awarded amounts and/or supplemental commitments.



Replacement Power Allocation

Discussion:

- The recommended allocation will create at least 10 new jobs with a capital investment commitment of at least \$36 M.

Requested Trustee Action:

- The Trustees are requested to approve:
 - 1,000 kW allocation of Replacement Power to Unifrax I LLC, which is planning to add a new manufacturing line at its Pirson Parkway facility in Tonawanda (Erie County).

Recommendations for Awards of Fund Benefits from the WNY Economic Development Fund by the WNY Power Proceeds Allocation Board

Discussion:

- The recommended projects will support approximately \$360 K in capital investments.
- To date, about \$38 M of Fund Benefit Awards have been approved and ~\$4.3 M is currently available to be awarded.

Requested Trustee Action:

- Accept the recommendation made by the Western NY Power Proceeds Allocation Board (“WNYPPAB”) at their October 2, 2019 meeting that Ashdan Screw Machine Products, Inc. and Buffalo Arts and Technology Center, Inc. be awarded Fund Benefits totaling \$51,268.



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Award of Fund Benefits from the NNY Economic Development Fund Recommended by the NNY Power Proceeds Allocation Board

Discussion:

- The recommended project will support the creation of 7 jobs and ~\$846 K in capital investments.
- To date, ~\$1.7 M of Fund Benefit Awards have been approved and ~\$3.3 M is currently available to be awarded.

Requested Trustee Action:

- Accept the recommendation made by the Northern NY Power Proceeds Allocation Board (“NNYPPAB”) at their October 16, 2019 meeting that Structural Wood Corporation be awarded Fund Benefits totaling \$169,112.



**NY Power
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**Canal
Corporation**

Proposed Contract and Tariff for the Sale of Certain Unbranded Power and Energy and Notice of Public Hearing

Discussion:

- The extensions of the 1 MW Niagara Frontier Transportation Authority (NFTA) allocation and the 2.3 MW NFTA allocation for the benefit of the Niagara Falls Air Base (NFAB). These allocations continue to protect jobs at NFAB and support environmentally friendly affordable public transportation in a key western New York economic zone.
- The new agreement supports the State's Clean Energy Standard.

Requested Trustee Action:

- Extension of the 1 MW and 2.3 MW NFTA allocations for 5 years through December 31, 2024, and
- Authorization of a Public Hearing, per PAL §1009, on the proposed form of the contract and tariff with the NFTA, and
- Execution of the proposed contract for the sale of the allocations on a month to month basis pending completion of the public hearing and gubernatorial approval process.



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Line	Company	City	County	Economic Development Region	IOU	Description	kW Request	kW Recommendation	Jobs Retained	Jobs Created	Total Job Commitment	Capital Investment (\$)		Contract Term (years)
1	WHTB Glass LLC	Shirley	Suffolk	Long Island	LIPA	Manufacturer of architectural glass	21	10	16	0	16	\$5,000,000	(1), (2)	7
	Long Island Region Sub-totals:							10	16	0	16	\$5,000,000		
2	Lydall Performance Materials (US), Inc.	Beaver Falls	Lewis	North Country	NGRID	Manufacturer of gaskets & filtration products	1,830	916	54	0	54	\$3,800,000		7
	North Country Region Sub-totals:							916	54	0	54	\$3,800,000		

Totals	926	70	0	70	\$8,800,000
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(1) This company is also recommended for an expansion-related allocation of RNY for separate and distinct job creation and capital investment commitments associated with the proposed business expansion.

(2) This company is being considered as a large business for retention purposes as they are expanding and their total load is expected to increase significantly. The majority of their RNY kW award is contained in their expansion-related recommendation.

New York Power Authority
Recommendations - RNY Power Allocations for Expansion Purposes

Exhibit "B"
December 11, 2019

Line	Company	City	County	Economic Development Region	IOU	Description	kW Request	kW Recommendation ⁽¹⁾	Base Employment ⁽³⁾	Job Creation Commitment	Project Capital Investment (\$)		Contract Term (years)
1	Cayuga Milk Ingredients, LLC	Auburn	Cayuga	Central New York	NYSEG	Manufacturer of dairy products	3,069	2,146	74	34	\$89,000,894	⁽⁴⁾	7
2	John Mezzalingua Associates, LLC	Syracuse	Onondaga	Central New York	NGRID	Manufacturer of wireless communication equipment	440	306	0	100	\$25,000,000		7
	Central New York Region Sub-totals:							2,452	22	134	\$114,000,894		
3	Crescent Duck Farm, Inc.	Aquebogue	Suffolk	Long Island	LIPA	Duck farm	100	70	77	2	\$145,000	⁽⁴⁾	7
4	WHTB Glass LLC	Shirley	Suffolk	Long Island	LIPA	Manufacturer of architectural glass	3,500	2,450	16	34	\$5,500,000	⁽²⁾	8
	Long Island Region Sub-totals:							2,520	0	36	\$5,645,000		
5	Tulip Molded Plastics Corporation	Niagara Falls	Niagara	Western New York	NGRID	Manufacturer of injection molded plastic parts	1,500	200	98	2	\$3,000,000		7
	Western New York Region Sub-totals:							200	98	2	\$3,000,000		

Totals

5,172	120	172	\$122,645,894
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- (1) All expansion-based RNY Power allocations are recommended to be "up to" the amount indicated pending the applicant's compliance with contractual commitments, including commitments relating to job creation, capital investment spending and power utilization.
- (2) This company is also being recommended for a retention-based RNY Power allocation associated with separate and distinct contractual commitments relating to such matters as job retention, capital investment spending, and power utilization associated with an existing business.
- (3) The number of new jobs committed will be above a base employment level specified in the power sale contract with the applicant.
- (4) These applicants were previously approved for RNY Power allocations. The base employment level refers to the applicant's retained jobs, most of which are already associated with an existing power allocation.

Retention-Based Allocations

Line	Company	City	County	Economic Development Region	IOU	Description	kW Request	kW Recommendation	Jobs Retained	Jobs Created	Capital Investment (\$)		Contract Term (years)
1	Roll-N-View Farms, LLC	Nunda	Livingston	Finger Lakes	RGE	Dairy farm	21	10	12	0	\$250,000	(1)	7
	Finger Lakes Region Sub-totals:							10	12	0	\$250,000		
2	Great South Bay Brewery Corp.	Bay Shore	Suffolk	Long Island	LIPA	Brewery for craft beers	107	20	18	0	\$250,000	(1)	7
3	Ultra Thin Ready To Bake Pizza Shells N.Y., LLC	Deer Park	Suffolk	Long Island	LIPA	Manufacturer of pizza crusts & flatbreads	250	120	23	0	\$2,000,000		7
	Long Island Region Sub-totals:							140	41	0	\$2,250,000		
4	Buffalo Film Works, Inc.	Buffalo	Erie	Western New York	NGRID	Film production company	58	26	1	0	\$1,000,000		7
	Western New York Region Sub-totals:							26	1	0	\$1,000,000		

Retention-Based Totals

176	54	0	\$3,500,000
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Expansion-Based Allocations

Line	Company	City	County	Economic Development Region	IOU	Description	kW Request	kW Recommendation (3)	Base Employment	Job Creation Commitment	Project Capital Investment (\$)		Contract Term (years)
5	Klein's Kill Fruit Farms Corporation	Germantown	Columbia	Capital District	NGRID	Fruit farm	90	46	0	10	\$1,700,000		7
	Capital District Sub-totals:							46	0	10	\$1,700,000		
6	Roll-N-View Farms, LLC	Nunda	Livingston	Finger Lakes	RGE	Dairy farm	200	100	12	5	\$700,000	(1),(2)	7
	Finger Lakes Region Sub-totals:							100	0	5	\$700,000		
7	Great South Bay Brewery Corp.	Bay Shore	Suffolk	Long Island	LIPA	Brewery for craft beers	50	26	18	5	\$250,000	(1),(2)	7
	Long Island Region Sub-totals:							26	0	5	\$250,000		
8	Civic Hall Labs, Inc.	New York	New York	New York City	CONED	Technology & digital learning center	230	76	0	14	\$17,444,620		7
	New York City Region Sub-totals:							76	0	14	\$17,444,620		

Expansion-Based Totals

248	0	34	\$20,094,620
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Retention & Expansion-Based Totals

424	54	34	\$23,594,620
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- (1) These applicants are being recommended for both RNY retention and expansion-based allocations.
(2) The number of new jobs committed will be above a base employment level specified in the applicant's retention-based allocation recommendation.
(3) All expansion-based RNY Power allocations are recommended to be "up to" the amount indicated pending the applicant's compliance with contractual commitments, including commitments relating to job creation, capital investment spending and power

Line	Company	City	County	Economic Development Region	IOU	Description	Reason
1	Evelyn's Beauty Salon Unisex Inc.	Bronx	Bronx	New York City	CONED	Unisex beauty salon	The applicant's business falls within EDPAB's definition of a retail business. Specifically, the applicant operates a business that is primarily used in making retail sales of goods or services to customers who personally visit such facilities to obtain goods or services.

Line	Company	City	County	Economic Development Region	IOU	Description	Reason ⁽¹⁾
1	King Brothers Dairy, LLC	Schuylerville	Saratoga	Capital District	NGRID	Dairy farm	The facility lacks demand metering preventing RNY Power delivery and billing.
2	Luncrest Farms LLC	Granville	Washington	Capital District	NGRID	Dairy farm	The facility lacks demand metering preventing RNY Power delivery and billing.

(1) Given the disposition of these applications, EDPAB has not considered the eligibility of these applicants for an RNY Power allocation.

**New York Power Authority
ReCharge New York Power Program
Informational Item - Terminate Application/Review Process**

**Exhibit "F"
December 11, 2019**

Line	Company	City	County	Economic Development Region	IOU	Description	Reason
1	Buffalo Biodiesel Inc.	Tonawanda	Erie	Western New York	NGRID	Conversion of used cooking oil to biodiesel	Applicant submitted an incomplete application.
2	Currier Plastics, Inc.	Auburn	Cayuga	Central New York	NYSEG	Manufacturer of plastic molded products	Applicant submitted an incomplete application.
3	Quesos La Ricura, Ltd.	Brentwood	Suffolk	Long Island	LIPA	Manufacturer of cheese products	Applicant has been unresponsive to requests by staff for additional information, preventing a complete analysis of the application.
4	Z-TEK Group, Inc.	Commack	Suffolk	Long Island	LIPA	Manufacturer of aircraft battery systems	Applicant has been unresponsive to requests by staff for additional information, preventing a complete analysis of the application.

(Statutory Criteria – RNY Power Program)

- the significance of the cost of electricity to the applicant's overall cost of doing business, and the impact that a Recharge New York power allocation will have on the applicant's operating costs;
- the extent to which a Recharge New York power allocation will result in new capital investment in the state by the applicant;
- the extent to which a Recharge New York power allocation is consistent with any regional economic development council strategies and priorities;
- the type and cost of buildings, equipment and facilities to be constructed, enlarged or installed if the applicant were to receive an allocation;
- the applicant's payroll, salaries, benefits and number of jobs at the facility for which a Recharge New York power allocation is requested;
- the number of jobs that will be created or retained within the state in relation to the requested Recharge New York power allocation, and the extent to which the applicant will agree to commit to creating or retaining such jobs as a condition to receiving a Recharge New York power allocation;
- whether the applicant, due to the cost of electricity, is at risk of closing or curtailing facilities or operations in the state, relocating facilities or operations out of the state, or losing a significant number of jobs in the state, in the absence of a Recharge New York power allocation;
- the significance of the applicant's facility that would receive the Recharge New York power allocation to the economy of the area in which such facility is located;
- the extent to which the applicant has invested in energy efficiency measures, will agree to participate in or perform energy audits of its facilities, will agree to participate in energy efficiency programs of the authority, or will commit to implement or otherwise make tangible investments in energy efficiency measures as a condition to receiving a Recharge New York power allocation;
- whether the applicant receives a hydroelectric power allocation or benefits supported by the sale of hydroelectric power under another program administered in whole or in part by the New York Power Authority;
- the extent to which a Recharge New York power allocation will result in an advantage for an applicant in relation to the applicant's competitors within the state; and
- in addition to the foregoing criteria, in the case of a not-for-profit corporation, whether the applicant provides critical services or substantial benefits to the local community in which the facility for which the Recharge New York power allocation is requested is located.

Retention-Based Allocations

Line	Company	City	County	Economic Development Region	IOU	Description	Current kW Amount	Recommended kW Amount	Job Commitments	Capital Investment Commitment (\$)	Contract Term (years)
1	Alken Industries Inc.	Ronkonkoma	Suffolk	Long Island	LIPA	Manufacturer of aircraft components	80	80	45	\$500,000	7
2	API Heat Transfer Inc.	Buffalo	Erie	Western New York	NGRID	Manufacturer of heat exchangers	140	140	220	\$1,000,000	7
3	XLI Manufacturing, LLC	Rochester	Monroe	Finger Lakes	RGE	Manufacturer of machine components	100	100	49	\$1,500,000	7
Totals							320	320	314	\$3,000,000	

Retention-Based Allocations

Line	Company	City	County	Economic Development Region	IOU	Description	Recommended kW Amount	Final Job Commitments	Final Capital Investment Commitment (\$)	Contract Term (years)
1	Kaleida Health	Buffalo, North Tonawanda, & Williamsville	Erie & Niagara	Western New York	NGRID	Hospitals & healthcare centers	3,636	5,358 ⁽²⁾	\$75,000,000 ^{(1) (2)}	7
2	Homogeneous Metals, Inc.	Clayville	Oneida	Mohawk Valley	NGRID	Manufacturer of superalloy powder	1,150 ⁽¹⁾	248	\$20,000,000	7

(1) Represents modified/corrected amount.

(2) Commitments will apply to multiple facilities/addresses. The change will be implemented in customer's power contract.

(Statutory Criteria – RNY Power Program)

- the significance of the cost of electricity to the applicant's overall cost of doing business, and the impact that a Recharge New York power allocation will have on the applicant's operating costs;
- the extent to which a Recharge New York power allocation will result in new capital investment in the state by the applicant;
- the extent to which a Recharge New York power allocation is consistent with any regional economic development council strategies and priorities;
- the type and cost of buildings, equipment and facilities to be constructed, enlarged or installed if the applicant were to receive an allocation;
- the applicant's payroll, salaries, benefits and number of jobs at the facility for which a Recharge New York power allocation is requested;
- the number of jobs that will be created or retained within the state in relation to the requested Recharge New York power allocation, and the extent to which the applicant will agree to commit to creating or retaining such jobs as a condition to receiving a Recharge New York power allocation;
- whether the applicant, due to the cost of electricity, is at risk of closing or curtailing facilities or operations in the state, relocating facilities or operations out of the state, or losing a significant number of jobs in the state, in the absence of a Recharge New York power allocation;
- the significance of the applicant's facility that would receive the Recharge New York power allocation to the economy of the area in which such facility is located;
- the extent to which the applicant has invested in energy efficiency measures, will agree to participate in or perform energy audits of its facilities, will agree to participate in energy efficiency programs of the authority, or will commit to implement or otherwise make tangible investments in energy efficiency measures as a condition to receiving a Recharge New York power allocation;
- whether the applicant receives a hydroelectric power allocation or benefits supported by the sale of hydroelectric power under another program administered in whole or in part by the New York Power Authority;
- the extent to which a Recharge New York power allocation will result in an advantage for an applicant in relation to the applicant's competitors within the state; and
- in addition to the foregoing criteria, in the case of a not-for-profit corporation, whether the applicant provides critical services or substantial benefits to the local community in which the facility for which the Recharge New York power allocation is requested is located.

APPLICATION SUMMARY
Replacement Power ("RP")

Company:	Unifrax I LLC ("Unifrax")
Location:	Tonawanda
County:	Erie County
IOU:	National Grid
Business Activity:	The company is a manufacturer of ceramic fiber insulation products used in the automotive industry.
Project Description:	Unifrax is proposing to add a new manufacturing line at its Pirson Parkway facility (known as the Line #7 Project) to meet customer demands for its poly-crystalline fiber products which are used primarily in catalytic converters.
Existing Allocation(s):	2,400 kW of RP at this location
Power Request:	2,500 kW of RP
Power Recommended:	1,000 kW of RP
Job Commitment:	
Base:	45
New:	At least 10 jobs
New Jobs/Power Ratio:	10 jobs/MW
New Jobs - Avg. Wage and Benefits:	\$67,600
Capital Investment:	At least \$36 million
Capital Investment/MW:	\$36 million/MW
Other ED Incentives:	(1) Erie County IDA tax incentives, (2) Town of Tonawanda support, and (3) potentially National Grid assistance (grant application currently under consideration).
Summary:	Unifrax is proposing to install a new production line (Line #7) at its Pirson Parkway facility in Tonawanda. The company currently employs 397 persons at its four facilities in New York State and has been a long-time NYPA customer. Unifrax has worldwide manufacturing facilities and is considering potential expansion opportunities in the UK, Japan, and Europe. An allocation of low-cost hydropower, along with additional state support, could incentivize Unifrax to choose its Pirson Parkway facility as the site for its new Line #7. Unifrax may also consider additional expansion opportunities at its Pirson Parkway facility in the future.

Applicants Recommended for an Award of Fund Benefits by the Western NY Proceeds Allocation Board

Line	Business	City	County	Economic Development Region	Project Description	Project Type	Recommended Award Amount	Total Project Cost	Jobs Retained	Jobs Created
1	Ashdan Screw Machine Products, Inc.	Lockport	Niagara	Western NY	Expansion	Business Investment	\$12,500	\$164,715	0	1
2	Buffalo Arts and Technology Center, Inc.	Buffalo	Erie	Western NY	Expansion	Workforce Development	\$38,768	\$193,838	N/A	N/A
Total:							\$51,268	\$358,553	N/A	1

Total Jobs Created & Retained: 1



Western NY Power Proceeds Allocation Board

Western New York Economic Development Fund Recommendation Memo

Applicant Name:	Ashdan Screw Machine Products, Inc. ("Ashdan")	REDC Region:	Western New York
Project Type:	Business Investment	County:	Niagara
Industry:	Machine Shop	Locality:	Lockport
Amount Requested:	\$12,500	Start Date:	December 15, 2019
		Finish Date:	April 30, 2020
RECOMMENDED OFFER			
Recommended Total Award:	\$12,500		
Total Project Cost:	\$164,715		
% of Project Cost Recommended:	8%		
PROJECT BUDGET (Proposed by Applicant)			
Use of funds	Amount	Source of Funds	Amount
Swiss Style CNC Turning Center	\$164,715	WNY EDF Committed:	\$12,500
		Bank Loan	\$125,000
		Owner Equity	\$27,215
Total:	\$164,715	Total:	\$164,715
REGIONAL IMPACT MEASUREMENTS			
Job Commitments:	Applicant will create 1 FTE position at the project location over three years.		
Average Salary of Jobs:	\$41,600		
Indirect Jobs Created			
Other Impact			
PROJECT DESCRIPTION (Adapted from Application.)			
<p>The Applicant is growing its relationship with an existing medical products customer and has an opportunity to add business by machining a new part that will require an increase in its Swiss style computer numerical controlled ("CNC") turning capacity. Swiss turning is used for manufacturing small, high volume, high precision parts. It was developed in 19th century Switzerland to facilitate mass production of miniature screws and far exceeds the precision and accuracy of traditional "fixed headstock" lathes. Swiss lathes are fully CNC operated and can also offer additional capabilities such as milling and laser cutting.</p>			
OTHER ECONOMIC DEVELOPMENT BENEFITS RECEIVED			



Western New York Economic Development Fund Recommendation Memo

ESD:	None		
Economic Dev. Loan:		Other:	
PREVIOUS STATE ASSISTANCE OFFERED OR PROVIDED			
TYPE	AMOUNT	STATUS	
N/A	\$		
BASIS FOR RECOMMENDATION (Based partly on information in the Application.)			
<p>The addition of a Swiss Style CNC Turning Center will help the Applicant meet orders requiring tight specifications in a timely manner, access more business in medical and aerospace industries, which frequently require precision machined products, improve capacity and add to the Applicant's long term sustainability. Debt and equity financing available to support the proposed project are not sufficient to meet the total project cost. As such, the Applicant would resort to filling orders requiring tight tolerances with current assets. The project also supports the creation of one full time position and execution of a \$165K capital project, and aligns well with the Applicant's ISO 9001 – 2015 certification and WNYREDC strategies and priorities that seek to foster advanced manufacturing in the region.</p>			
ANTICIPATED DISBURSEMENT TERMS			
<p>Fund Benefits would be used to reimburse the applicant for a portion of costs associated with purchasing the machinery and equipment. It is anticipated that funds will be disbursed in arrears upon project completion. Payment will be made upon presentation to the New York Power Authority ("NYPA") of invoices and such other documentation acceptable to NYPA verifying the applicant has incurred eligible expenses of approximately \$165K.</p>			



Western NY Power Proceeds Allocation Board

Western New York Economic Development Fund Recommendation Memo

Applicant Name:	Buffalo Arts and Technology Center, Inc. ("BATC")	REDC Region:	Western New York
Project Type:	Workforce Development	County:	Erie County
Industry:	Not for Profit Workforce Development	Locality:	Buffalo
Amount Requested:	\$38,768	Start Date:	January 2020
		Finish Date:	December 2022
RECOMMENDED OFFER			
Recommended Total Award:		\$38,768	
Total Project Cost:		\$193,838	
% of Project Cost Recommended:		20%	
PROJECT BUDGET (Proposed by Applicant for 2020,2021 & 2022)			
Use of funds	Amount	Source of Funds	Amount
Salaries and Wages	\$64,182	WNY EDF	\$38,768
Rent/Facilities	\$58,833	Committed:	
Supplies and Materials	\$32,323	United Way	\$15,000
Autoclave & Instrument Washer	\$28,500	Oishei Foundation	\$15,000
Program Marketing	\$10,000	Private Donations	\$11,690
		National Grid	\$10,000
		Potential:	
		United Way	\$30,000
		Garman Family Foundation	\$30,000
		Unidentified	\$23,380
		National Grid	\$20,000
Total:	\$193,838	Total:	\$193,838
REGIONAL IMPACT MEASUREMENTS			
Job Commitments:	The Funding Track under which the application was submitted does not require job-related commitments.		
Average Salary of Jobs:	N/A		
Indirect Jobs Created:	N/A		
Other Impact:	Train 50 unemployed/underemployed individuals annually for a total of 150 over a three year period.		



Western NY Power Proceeds Allocation Board

Western New York Economic Development Fund Recommendation Memo

PROJECT DESCRIPTION (Adapted from the Application.)

BATC is seeking a Fund Benefit award to support three years of programming costs related to establishing Sterile Processing and Distribution and Phlebotomy curriculums, including staff salaries, course books and materials, machinery and equipment, and overhead allocations for rent.

Sterile Processing and Distribution develops technical skills required to properly disinfect, prepare, process, store, and issue sterile and non-sterile medical/surgical supplies and equipment. Students learn to operate sterilizing units and monitor process effectiveness.

The Phlebotomy curriculum develops related technical skills in health care delivery, basic anatomy and physiology, specimen collection, transport and processing, infection control and safety, quality control, and laboratory testing.

These courses would be provided tuition free to 50 adults annually for three years (150 total students) to prepare them for positions offering above minimum wage salaries and career opportunities in Buffalo's growing healthcare industry. Upon completion of the courses, adult students will have gained both technical skills and workplace environment-related knowledge necessary to achieve success in their new positions. Successful students must pass the required national certification exam.

OTHER ECONOMIC DEVELOPMENT BENEFITS RECEIVED

ESD Excelsior:	N/A		\$
IDA: PILOT, Sales Tax & Mortgage Recording	N/A		\$

PREVIOUS STATE ASSISTANCE OFFERED OR PROVIDED

TYPE	AMOUNT	STATUS
		Closed



Western NY Power Proceeds Allocation Board

Western New York Economic Development Fund Recommendation Memo

EXHIBIT A-2

BASIS FOR RECOMMENDATION (Based partly on information in the Application.)

Lowering the number of unemployed and underemployed residents has many benefits, including reducing social program dependency and increasing the region's tax base. As poverty tends to have generational impacts, children of graduating adult students will likely have an improved chance of completing high school as they develop in more productive and stable home environments.

The Buffalo Niagara Labor Market Assessment indicates that "workforce training is a vital component of economic development." BATC addresses employment needs by aligning education and skills training with regional health care industry requirements.

Since inception, BATC has demonstrated the success of its training approach by reporting that 90% of its graduates are employed in careers providing family-sustaining wages. As Buffalo expands its medical corridor, healthcare is becoming one of the fastest growing employment sectors in WNY. A Fund Benefit Award would support an organization with a proven track record in workforce development and foster continued organizational growth.

Support for this project aligns well with WNYREDC strategies and priorities calling for workforce preparation through curriculum and resource alignment, skills development, partnerships and promoting career and related opportunities.

ANTICIPATED DISBURSEMENT TERMS

It is recommended that Fund Benefits be used only to pay for (1) supplies and materials needed for the program, and (2) professionals who will provide training services to participants as set forth in the full Application.

Also, it is recommended that Fund Benefits be disbursed annually upon satisfaction of certain milestones, such as evidence that classes have occurred and students have fulfilled graduation requirements, confirmation that sufficient funding has been secured from other sources to support the project, and possibly other milestones to be determined by the New York Power Authority to ensure that funding is being used effectively and for its intended purpose.

Criteria adapted from the Western NY Power Proceeds Allocation Board's
"Procedures for the Review of Applications for Fund Benefits"

1. The extent to which an award of Fund Benefits would be consistent with the strategies and priorities of the Regional Economic Development Council ("REDC") having responsibility for the region in which an Eligible Project is located.¹ The Western New York Regional Economic Development Council which is responsible for Eligible Projects in Erie and Niagara Counties Strategies & Priorities are:
 - Promote "Smart Growth" by investing in areas that infrastructure already exists and achieves certain goals, such as: preserving historic buildings; reviving downtowns; reviving main streets; investing in existing neighborhoods; and investing in former industrial sites. A project consistent with Smart Growth will also focus on: enhancing walkability; enhancing multiple modes of transportation; connecting disadvantaged communities to employment clusters; spurring mixed-use private investment in existing communities and preserving/enhancing natural lands and or resources.
 - Promote workforce development by increasing diversity in the labor force, developing and cultivating that includes workers with advancement potential, underemployed, unemployed and special population; align education and skills training to job market for current and future industry needs.
 - Foster entrepreneurship and new business formation and growth. Designing a plan that brings new technologies and/or products to the marketplace, increases new start ups in strategic industries and facilitates the commercialization of products that can lead to job growth in the Region.
 - Increase the industry profile of agriculture in WNY by: creating better access to markets; creating new products; creating new more efficient processes; creating strong regional brands; creating programs that promote careers in agriculture.
 - Utilize Western New York's proximity to Canadian and U.S. population centers to advance economic development in WNY. Bi-national projects will: utilize cross-border planning to create transportation and logistical infrastructure; improve

¹ As provided for in EDL § 189-c(4), criteria 2-15 are adapted from the criteria for eligibility for Expansion Power, Replacement Power and Preservation Power under Public Authorities Law § 1005. The specific criteria identified in PAL § 1005(13)(b)(4)-(5) are relevant to power allocations under these programs but do not have any logical application to allocations of Fund Benefits. Therefore, the Board does not expect to use these criteria to evaluate applications for Fund Benefits. Additionally, in accordance with PAL § 1005(13), criteria 13-15 listed herein will only be used in the case of Eligible Projects which are proposed by Applicants as, and determined by the Board to be, "revitalization" projects.

operational relationships; promote the attractiveness of WNY as a hub for global trade.

- Position the WNY region as a global energy hub through new sources of clean energy, energy efficiency and energy efficient transportation.
- Support growth of advanced manufacturing by making research more available to manufacturers to help them innovate.
- Spur growth in the health and life sciences industry through improved commercialization, recruit high profile research talent and reducing the cost burden of healthcare while improving health outcomes.
- Expand the scope of higher education by increasing accessibility to Higher Education for communities that currently have limited access to educational opportunities; better aligning education with the industry needs and creating support structures for start-ups which will assist start-ups with commercialization, business planning, workforce preparation, facilities, etc.
- Grow visitors and visitor spending by raising the profile of WNY as a national and international destination; connect multiple tourist destinations in WNY; improve the profile of the WNY Gateway to the United States.

For more information on the Western New York Regional Economic Development Council please go to <http://regionalcouncils.ny.gov/content/western-new-york>.

2. The extent to which an award of Fund Benefits would be consistent with the strategies and priorities of the Regional Economic Development Council ("REDC") having responsibility for the region in which an Eligible Project is located.² The Finger Lakes Regional Economic Development Council which is responsible for Eligible Projects in Orleans and Genesee Counties Strategies & Priorities can be found at: <http://regionalcouncils.ny.gov/content/finger-lakes>.
3. The number of jobs that would be created as a result of an award of Fund Benefits.
4. The applicant's long term commitment to the region as evidenced the current and/or planned capital investment in applicant's facilities in the region.
5. The ratio of the number of jobs to be created to the amount of Fund Benefits requested.
6. The types of jobs that would be created, as measured by wage and benefit levels, security and stability of employment.
7. The amount of capital investment, including the type and cost of buildings, equipment and facilities, proposed to be constructed, enlarged or installed.
8. The extent to which an award of Fund Benefits would affect the overall productivity or competitiveness of the applicant and its existing employment.

² As provided for in EDL § 189-c(4), criteria 2-15 are adapted from the criteria for eligibility for Expansion Power, Replacement Power and Preservation Power under Public Authorities Law § 1005. The specific criteria identified in PAL § 1005(13)(b)(4)-(5) are relevant to power allocations under these programs but do not have any logical application to allocations of Fund Benefits. Therefore, the Board does not expect to use these criteria to evaluate applications for Fund Benefits. Additionally, in accordance with PAL § 1005(13), criteria 13-15 listed herein will only be used in the case of Eligible Projects which are proposed by Applicants as, and determined by the Board to be, "revitalization" projects.

9. The extent to which an award of Fund Benefits may result in a competitive disadvantage for other business in the State.
 10. The growth potential of the applicant's facilities and the contribution of economic strength to the area in which the applicant's facilities are or would be located.
 11. The extent of the applicant's willingness to satisfy affirmative action goals.
 12. The extent to which an award of Fund Benefits is consistent with state, regional and local economic development strategies and priorities and supported by local units of government in the area in which the business is located.
 13. The impact of an award of Fund Benefits on the operation of any other facilities of the applicant, and on other businesses within the region.
 14. That the business is likely to close, partially close or relocate resulting in the loss of a substantial number of jobs.
 15. That the applicant is an important employer in the community and efforts to revitalize the business are in long-term interests of both employers and the community.
 16. That a reasonable prospect exists that the proposed award of Fund Benefits will enable the applicant to remain competitive and become profitable and preserve jobs for a substantial period of time.
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Applicants Recommended for an Award of Fund Benefits by the NNY Proceeds Allocation Board

Line	Business	City	County	Economic Development Region	Project Description	Project Type	Recommended Award Amount	Total Project Cost	Jobs Retained	Jobs Created
1	Structural Wood Corporation	Waddington	SLC	North Country	Expand manufacturing facility	Business Investment	\$169,112	\$845,562	-	7
Total:							\$169,112	\$845,562	-	7

Total Jobs Created & Retained: 7



Northern NY Power Proceeds Allocation Board

Northern New York Economic Development Fund Recommendation Memo

Applicant Name:	Structural Wood Corporation ("SWC")	REDC Region:	North Country
Project Type:	Business Investment	County:	St. Lawrence
Industry:	Wood Product Manufacturing	Locality:	Waddington
Amount Requested:	\$169,112	Start Date:	10/1/19
		Finish Date:	12/31/20
RECOMMENDED OFFER			
Recommended Total Award:	\$169,112		
Total Project Cost:	\$845,562		
% of Project Cost Recommended:	20%		
PROJECT BUDGET (Proposed by Applicant)			
Use of funds	Amount	Source of Funds	Amount
Tractor, Trailer, Small Equipment	\$452,416	NNY EDF	\$169,112
Land & Building Acquisition	\$170,000	Bank Loan	\$294,450
Building Improvements	\$89,355	SLCIDA	\$300,000
Heating, Lighting Upgrades	\$37,422	Company Equity	\$82,000
Land Improvements	\$35,000		
Supplies & Materials	\$28,409		
Salaries & Wages	\$17,960		
Closing, Legal Costs	\$15,000		
Total:	\$845,562	Total:	\$845,562
REGIONAL IMPACT MEASUREMENTS			
Job Commitments:	Applicant would create 7 full time positions at the project location over 7 years.		
Average Salary of Jobs:	\$45,183		
Indirect Jobs Created	n/a		
Other Impact			
PROJECT DESCRIPTION (Adapted from Application)			
<p>SWC manufactures a variety of construction products including pre-engineered, structural wood trusses and wall panels for use in barns and other agricultural buildings. SWC is planning to acquire 3.65 acres of land and a building located immediately adjacent to its Waddington facility to provide a larger and safer loading/shipping area and for inventory storage. SWC also plans to improve its existing production facility by adding overhead doors, insulation, upgraded lighting and heating, and extending the existing truss table, lumber tree and plate storage to accommodate increased production. The project is expected to make SWC more competitive by reducing production costs and increasing sales growth by 20%, which would require the addition of 7 employees over the next 7 years.</p>			



Northern NY Power Proceeds Allocation Board

Exhibit 5c i-5-A-1
December 11, 2019

Northern New York Economic Development Fund Recommendation Memo

OTHER ECONOMIC DEVELOPMENT BENEFITS RECEIVED		
	SLCIDA Loan	\$300,000
PREVIOUS STATE ASSISTANCE OFFERED OR PROVIDED		
TYPE	AMOUNT	STATUS
N/A	\$	
BASIS FOR RECOMMENDATION (Based partly on information in the Application.)		
<p>The applicant indicates that without an award of Fund Benefits, it would undertake a smaller project, which would reduce capital investment and job impact. The project will improve the applicant's production processes and enable it to grow revenues in New York State. The project also aligns well with the strategies and priorities of the NCREDC that focus on manufacturing business retention and expansion.</p>		
ANTICIPATED DISBURSEMENT TERMS		
<p>Fund Benefits would be used to reimburse the applicant for a portion of costs associated with purchasing heating and lighting and small equipment. Fund Benefits will not be used to support any purchases of rolling stock. It is anticipated that funds will be disbursed in arrears upon project completion. Payment will be made upon presentation to NYPA of invoices and such other documentation acceptable to NYPA verifying the applicant has incurred eligible expenses of approximately \$845,562.</p>		



Northern NY Power Proceeds Allocation Board

Criteria adapted from the “Board Procedures, and Board Policies Relating to the Review of Applications for Fund Benefits”, adopted by the Northern New York Power Proceeds Allocation Board

1. The extent to which an award of Fund Benefits would be consistent with the strategies and priorities of the North Country Regional Economic Development Council (“NCREDC”). Such strategies and priorities include the following:
 - Energize our communities by building on growth in the aerospace, transit equipment, defense, biotech, energy, and manufacturing industries
 - Leverage our gateway to Canada, the nation’s largest trading partner, to lead the State in global investment
 - Attract and nurture entrepreneurs through innovation to catalyze the highest per capita rate of small business start-ups and expansions in the state
 - Invest in community development infrastructure that expands opportunities and capacity
 - Innovate effective rural healthcare and education delivery networks
 - Elevate global recognition of the region as one of the special places on the planet to visit, live, work and study
 - Activate tourism as a driver to diversify our economies by creating demand to accelerate private investment
 - Invest in agriculture as we help feed the region and the world
 - Create the greenest energy economy in the state
2. Whether the eligible project would occur in the absence of an award of Fund Benefits.
3. The extent to which an award of Fund Benefits will result in new capital investment in the State by the eligible applicant and the extent of such investment.
4. Other assistance the eligible applicant may receive to support the eligible project.
5. The type and cost of buildings, equipment and facilities to be constructed, enlarged or installed if the eligible applicant were to receive an award of Fund Benefits.
6. The eligible applicant's payroll, salaries, benefits and number of jobs at the eligible project for which an award of Fund Benefits is requested.
7. Where applicable, the number of jobs that will be created or retained within St. Lawrence County and any other parts of the State in relation to the requested award of Fund Benefits, and the extent to which the eligible applicant will agree to commit to creating or retaining such jobs as a condition to receiving an award of Fund Benefits.
8. Whether the eligible applicant is at risk of closing or curtailing facilities or operations in St. Lawrence County and other parts of the State, relocating facilities or operations out of St. Lawrence County and other parts of the State, or losing a significant number of jobs in



Northern NY Power Proceeds Allocation Board

St. Lawrence County and other parts of the State, in the absence of an award of Fund Benefits.¹

9. The significance of the eligible project that would receive an award of Fund Benefits to the economy of the area in which such eligible project is located.
10. For new, expanded and/or rehabilitated facilities, the extent to which the eligible applicant will commit to implement or otherwise make tangible investments in energy efficiency measures as a condition to receiving an award of Fund Benefits.²

¹ Job creation and retention are key indicators of economic activity. However, the Allocation Board recognizes that certain investments may increase productivity and revitalize areas without immediately increasing permanent employment. Therefore, job creation/retention commitments will be emphasized primarily in the Business Investment Track. While job creation and retention may not be a significant factor for other Tracks, demonstration of economic development benefits to the Region will generally be considered favorably when assessing applications under all Tracks.

² As provided for in Economic development Law § 197-c(4), many of the criteria are adapted from criteria used in determining eligibility for Expansion Power, Replacement Power and Preservation Power under Public Authorities Law ("PAL") § 1005(13). Certain criteria identified in PAL § 1005(13) are relevant to power allocations under these programs and do not have any logical application to the allocation of Fund Benefits. Therefore, the Board does not expect to use these criteria to evaluate applications for Fund Benefits.

POWER AUTHORITY

OF THE

STATE OF NEW YORK

30 South Pearl Street
10th Floor
Albany, New York 12207-3425

AGREEMENT FOR THE SALE
OF UNBRANDED ST. LAWRENCE-FDR PROJECT POWER AND ENERGY

(Niagara Frontier Transportation Authority)

The POWER AUTHORITY OF THE STATE OF NEW YORK (“Authority”), created pursuant to Chapter 772 of the New York Laws of 1931 and existing under Title I of Article V of the New York Public Authorities Law (“PAL”), having its office and principal place of business at 30 South Pearl Street, 10th Floor, Albany, New York 12207-3425, hereby enters into this Agreement for the Sale of St. Lawrence-FDR Power Project Hydropower (“Agreement”) with Niagara Frontier Transportation Authority (“Customer”), with offices and principal place of business at 181 Ellicott Street, Buffalo, NY 14203. The Authority and the Customer are from time to time referred to in this Agreement as “Party” or collectively as “Parties” and agree as follows:

RECITALS

WHEREAS, the Authority is authorized to sell power and energy to the Customer in accordance with PAL § 1005;

WHEREAS, prior to the Effective Date, the Authority has provided the Customer with electric service in accordance with one or more written agreements to enable the Customer to receive electric service for allocations of firm power and energy sourced from the Authority’s St. Lawrence-FDR Power Project, Federal Energy Regulatory Commission (“FERC”) Project No. 2000;

WHEREAS, such allocations have consisted of a 1,000 kilowatt (“kW”) allocation for use at certain facilities in Buffalo, New York, and a 2,300 kW allocation for use at the Niagara Falls Air Force Base in Niagara Falls, NY, which are not branded under any statutory program administered by the Authority;

WHEREAS, the Authority’s Board of Trustees (“Trustees”) approved an extension of the existing allocations (defined in Article I of this Agreement as the “Allocation”) through December 31, 2024, subject to agreement on the terms and conditions for the sale of the Allocation and related matters;

WHEREAS, the Parties have reached an agreement on the terms and conditions applicable for the sale of the Allocation as provided for in this Agreement;

WHEREAS, the sale of the Allocation for the extended term will be subject to the terms and conditions set forth in this Agreement, Authority Service Tariff No. 37A, and the Rules as further provided in this Agreement; and

WHEREAS, the Authority has complied with requirements of PAL § 1009 and has been authorized to execute the Agreement.

NOW, THEREFORE, in consideration of mutual covenants, terms, and conditions herein, and for other good and valuable consideration, the receipt and adequacy of which the Parties hereby acknowledge, the Parties do hereby mutually covenant and agree as follows:

ARTICLE I

DEFINITIONS

When used with initial capitalization, whether singular or plural, the following terms, as used in this Agreement, shall have the meanings as set forth below. When used with initial capitalization, whether singular or plural, terms defined in schedules or appendices to this Agreement shall have the meanings set forth in such schedules or appendices.

“Adverse Water Condition” means any event or condition, including without limitation a hydrologic or hydraulic condition, that relates to the flow, level, or usage of water at or in the vicinity of the Project and/or its related facilities and structures, and which prevents, threatens to prevent, or causes the Authority to take responsive action that has the effect of preventing, the Project from producing a sufficient amount of energy to supply the full power and energy requirements of firm power and firm energy customers who are served by the Project.

“Agreement” means this Agreement, and unless otherwise indicated herein, includes all schedules, appendices and addenda thereto, as the same may be amended from time to time.

“Allocation” refers to the allocation(s) of Unbranded STL Project Power awarded to the Customer as specified in Schedule A.

“Alternative REC Compliance Program” has the meaning provided in Schedule D.

“Contract Demand” is as defined in Service Tariff No. 37A.

“Customer-Arranged Energy” means energy the Customer itself procures from sources other than the Authority for the purpose of replacing Firm Hydroelectric Energy that is not supplied to the Customer due to a Planned Hydropower Curtailment.

“Effective Date” means the date that this Agreement is fully executed by the Parties.

“Electric Service” is the Firm Hydroelectric Power and Firm Hydroelectric Energy associated with the Allocation and sold by the Authority to the Customer in accordance with this Agreement, Service Tariff No. 37A and the Rules.

“Energy Services” has the meaning set forth in Article IV of this Agreement.

“Facility” means the Customer’s facilities as described in Schedule A to this Agreement.

“FERC” means the Federal Energy Regulatory Commission (or any successor organization).

“FERC License” means the first new license issued by FERC to the Authority for the continued operation and maintenance of the Project, pursuant to Section 15 of the Federal Power Act, which became effective October 22, 2003 after expiration of the Project’s original license which became effective in 1953.

“Firm Hydroelectric Power” means capacity (kW), sourced from the STL Project intended to be available at all times except for limitations provided for in this Agreement, Service Tariff No. 37A and the Rules.

“Firm Hydroelectric Energy” means energy (kWh) associated with Firm Hydroelectric Power, sourced from the STL Project.

“Hydro Project” or “STL Project” is a reference to the Authority’s St. Lawrence-FDR Power Project, FERC Project No. 2000.

“International Joint Commission” or “IJC” refers to the entity with responsibility to prevent and resolve disputes between the United States of America and Canada under the *1909 Boundary Waters Treaty* and pursues the common good of both countries as an independent and objective advisor to the two governments. The IJC rules upon applications for approval of projects affecting boundary or transboundary waters and may regulate the operation of these projects.

“Load Reduction” has the meaning set forth in Section VIII.6 of this Agreement.

“Load Serving Entity” (or “LSE”) means an entity designated by a retail electricity customer (including the Customer) to provide capacity, energy and ancillary services to serve such customer, in compliance with NYISO Tariffs, rules, manuals and procedures.

“Local Electric Utility” means one or more local electric utilities that are responsible for delivery of the Allocation to the Facility and/or whose transmission/delivery infrastructure will be used in connection with the delivery of the Allocation.

“Metering Arrangement” has the meaning set forth in Section II.8 of this Agreement.

“NYISO” means the New York Independent System Operator or any successor organization.

“NYISO Charges” has the meaning set forth in Section VI.3 of this Agreement.

“NYISO Tariffs” means the NYISO’s Open Access Transmission Tariff or the NYISO’s Market Administration and Control Area Services Tariff, as applicable, as such tariffs are modified from time to time, or any successor to such tariffs.

“Planned Hydropower Curtailment” means a temporary reduction in Firm Energy to which the Customer is entitled to receive under this Agreement made by the Authority in response to an anticipated or forecasted Adverse Water Condition.

“Rules” are the applicable provisions of Authority’s rules and regulations (Chapter X of Title 21 of the Official Compilation of Codes, Rules and Regulations of the State of New York), as may be modified from time to time by the Authority.

“Schedule A” refers to the Schedule A entitled “Unbranded STL Project Power Allocations” which is attached to and made part of this Agreement.

“Schedule B” refers to the Schedule B entitled “Takedown Schedule” which is attached to and made part of this Agreement.

“Schedule C” refers to the Schedule C entitled “Zero Emission Credit Charge” which is attached to and made part of this Agreement.

“Schedule D” refers to the Schedule D entitled “Monthly Renewable Energy Credit Charge” which is attached to and made part of this Agreement.

“Service Information” has the meaning set forth in Section II.11 of this Agreement.

“Service Tariff No. 37A” means the Authority’s Service Tariff No. 37A, as may be modified from time to time by the Authority, which contains, among other things, the rate schedule establishing rates and other commercial terms for sale of Electric Service to Customer under this Agreement.

“Substitute Energy” means energy that is provided to the Customer by or through the Authority for the purpose of replacing Firm Energy that is not supplied to the Customer due to a Planned Hydropower Curtailment or an Unplanned Hydropower Curtailment.

“Takedown” means the portion of the Allocation that Customer requests to be scheduled for a specific period as provided for in Schedule B, if applicable.

“Taxes” means all local, state and federal taxes, assessments or other charges mandated by local, state or federal agencies or authorities that are levied on the Authority or that the Authority is required to collect from the Customer, including any applicable “in lieu of” payments (collectively, “Taxes”).

“Unbranded STL Project Power” means Firm Hydroelectric Power and Firm Hydroelectric Energy produced by the Hydro Project that is not branded under any statutory program administered by the Authority.

“Unbranded STL Project Power Program” is a general reference to the Authority’s procedures pertaining to the allocation and sale of Unbranded STL Project Power and the administration of such sales.

“Unforced Capacity” (or “UCAP”) means the electric capacity required to be provided by LSEs to serve electric load as defined by the NYISO Tariffs, rules, manuals and procedures.

“Unplanned Hydropower Curtailment” means a temporary reduction in the amount of Firm Hydroelectric Energy to which the Customer is entitled to receive under this Agreement due to Adverse Water Condition that the Authority did not anticipate or forecast.

“Utility Tariff” means the retail tariff(s) of the Customer’s Local Electric Utility filed and approved by the Public Service Commission applicable to the delivery of Unbranded STL Project Power.

ARTICLE II

ELECTRIC SERVICE

1. The Authority shall make available Electric Service to enable the Customer to receive the Allocation in accordance with this Agreement, Service Tariff No. 37A and the Rules. Unless otherwise agreed to by the Parties in writing, the Electric Service under this Agreement will commence the later of January 1, 2020 or the date this Agreement is fully executed by the Parties, provided, however that in any case Electric Service shall be subject to the other terms and conditions in this Agreement, Service Tariff No. 37A and the Rules.
2. The Customer shall not be entitled to receive Electric Service under this Agreement for any allocation unless such allocation is identified in Schedule A.
3. The Authority will provide, and the Customer shall accept and pay for, Electric Service with respect to the Allocation specified in Schedule A. If Schedule B specifies a Takedown Schedule for the Allocation, the Authority will provide, and the Customer shall accept and pay for, Electric Service with respect to the Allocation in accordance with such Takedown Schedule.
4. The Authority shall provide UCAP in amounts necessary to meet the Customer's NYISO UCAP requirements associated with the Allocation in accordance with the NYISO Tariffs in an amount not to exceed the Contract Demand. The Customer shall be responsible to pay the Authority for such UCAP in accordance with Service Tariff No. 37A.
5. The provision of Electric Service associated with the Allocation is an unbundled service separate from the transmission and delivery of power and energy to the Customer. The Customer acknowledges and agrees that Customer's Local Electric Utility, not the Authority, shall be responsible for delivering the Allocation to the Facility specified in Schedule A in accordance with all applicable Utility Tariffs.
6. Unless otherwise agreed to by the Parties in writing, Firm Hydroelectric Power and Firm Hydroelectric Energy will sourced from the STL Project.
7. The Contract Demand for the Customer's Allocation may be modified by the Authority if the amount of Firm Hydroelectric Power and Firm Hydroelectric Energy available for sale as Unbranded STL Project Power is modified as required to comply with any ruling, order, or decision of any regulatory or judicial body having jurisdiction, including but not limited to FERC. Any such modification will be made on a pro rata basis to all other Authority customers served by the STL Project, based on the terms of such ruling, order, or decision.
8. The Customer's Facility must be metered by the Customer's Local Electric Utility in a manner satisfactory to the Authority, or another metering arrangement satisfactory to the Authority must be provided (collectively, "Metering Arrangement"). A Metering Arrangement that is not satisfactory to the Authority shall be grounds, after notice to the Customer, for the Authority to modify, withhold, suspend, or terminate Electric Service to the Customer. If a Metering Arrangement is not made to conform to the Authority's requirements within thirty (30) days of a determination that it is unsatisfactory, the Authority

may modify, withhold, suspend, or terminate Electric Service on at least ten (10) days' prior written notice to the Customer. After commencement of Electric Service, the Customer shall notify the Authority in writing within thirty (30) days of any alteration to the Facility's Metering Arrangement, and provide any information requested by the Authority (including Facility access) to enable the Authority to determine whether the Metering Arrangement remains satisfactory. If a modified Metering Arrangement is not made to conform to the Authority's requirements within thirty (30) days of a determination it is unsatisfactory, the Authority may modify, withhold, suspend, or terminate Electric Service on at least ten (10) days' prior written notice to the Customer. The Authority may, in its discretion, waive any of the requirements provided for in this Section in whole or in part where in the Authority's judgment, another mechanism satisfactory to the Authority can be implemented to enable the Authority to receive pertinent, timely and accurate information relating to the Customer's energy consumption and demand and render bills to the Customer for all fees, assessments and charges that become due in accordance with this Agreement, Service Tariff No. 37A, and the Rules.

9. The Customer consents to the exchange of information between the Authority and the Customer's Local Electric Utility pertaining to the Customer that such parties determine is necessary to provide for the allocation, sale and delivery of the Allocation to the Customer, the proper and efficient provision of Electric Service to the Facility, billing related to Electric Service, and/or the performance of such parties' obligations under any contracts or other arrangements between them relating to such matters. In addition, the Customer agrees to complete such forms and consents that the Authority determines are necessary to effectuate such exchanges of information.
10. The provision of Electric Service by the Authority shall be dependent upon the existence of a written agreement between the Authority and the Customer's Local Electric Utility providing for the delivery of Allocation to the Facility terms and conditions that are acceptable to the Authority, or another arrangement acceptable to the Authority.
11. The Customer understands and acknowledges that the Authority may from time to time require the Customer to complete forms, execute consents, and provide information (collectively, "Service Information") that the Authority determines is necessary for the provision of Electric Service, the delivery of the Allocation, billing related to Electric Service, the effective administration of and/or the performance of contracts or other arrangements between the Authority and the Customer's Local Electric Utility. The Customer's failure to provide Service Information on a timely basis shall be grounds for the Authority in its discretion to modify, withhold, suspend, or terminate Electric Service to the Customer.

ARTICLE III

RATES, TERMS AND CONDITIONS

1. Electric Service shall be sold to the Customer in accordance with the rates, terms and conditions provided for in this Agreement, Service Tariff No. 37A and the Rules. The Authority may waive the Minimum Monthly Demand and Energy Charges set forth in Service Tariff No. 37A for a period up to one (1) year upon written request from the Customer that is accompanied by information that demonstrates to the Authority's

satisfaction a short-term reduction or interruption of Facility operations due to events beyond the Customer's control. The Customer shall provide such information that the Authority requests during the period of any such waiver to enable the Authority to periodically evaluate the ongoing need for such waiver.

2. Notwithstanding any provision of this Agreement to the contrary, the power and energy rates for Electric Service shall be subject to increase by Authority at any time upon 30 days prior written notice to Customer if, after consideration by Authority of its legal obligations, the marketability of the output or use of the Hydro Project and Authority's competitive position with respect to other suppliers, Authority determines in its discretion that increases in rates obtainable from any other Authority customers will not provide revenues, together with other available Authority funds not needed for operation and maintenance expenses, capital expenses, and reserves, sufficient to meet all requirements specified in Authority's bond and note resolutions and covenants with the holders of its financial obligations. Authority shall use its best efforts to inform Customer at the earliest practicable date of its intent to increase the power and energy rates pursuant to this provision. With respect to any such increase, Authority shall forward to Customer with the notice of increase, an explanation of all reasons for the increase, and shall also identify the sources from which Authority will obtain the total of increased revenues and the bases upon which Authority will allocate the increased revenue requirements among its customers. Any such increase in rates shall remain in effect only so long as Authority determines such increase is necessary to provide revenues for the purposes stated in the preceding sentences.
3. In addition to all other fees, assessments and charges provided for in the Agreement, Service Tariff No. 37A and the Rules, the Customer shall be responsible for payment of the Zero Emission Credit Charge and Monthly Renewable Energy Credit Charge provided for in Schedule C and Schedule D, respectively, of this Agreement.

ARTICLE IV

ENERGY-RELATED PROJECTS, PROGRAMS AND SERVICES

The Authority shall periodically communicate with the Customer for the purpose of informing the Customer about energy-related projects, programs and services ("Energy Services") offered by the Authority that in the Authority's view could provide value to the Customer and/or support the State's Clean Energy Standard. The Customer shall review and respond to all such offers in good faith, provided, however, that, except as otherwise provided for in this Agreement, participation in any such Energy Services shall be at the Customer's option, and subject to such terms and conditions agreed to by the Parties in one or more definitive agreements.

ARTICLE V

SERVICE TARIFF; CONFLICTS

1. A copy of Service Tariff No. 37A in effect upon the execution of this Agreement is attached to this Agreement as Exhibit 1 and will apply under this Agreement with the same force and effect as if fully set forth herein. The Customer consents to the application of Service Tariff No. 37A. Service Tariff No. 37A is subject to revision by the Authority from time to time, and if revised, the revised provisions thereof will apply under this Agreement with the same

force and effect as if set forth herein. The Authority shall provide the Customer with prior written notice of any revisions to Service Tariff No. 37A unless otherwise stated in this Agreement, Service Tariff No. 37A, or the Rules.

2. In the event of any inconsistencies, conflicts, or differences between the provisions of Service Tariff No. 37A and the Rules, the provisions of Service Tariff No. 37A shall govern. In the event of any inconsistencies, conflicts or differences between the provisions of this Agreement and Service Tariff No. 37A, or the Rules, the provisions of this Agreement shall govern.

ARTICLE VI

TRANSMISSION AND DELIVERY

1. The Customer shall be responsible for:
 - a. complying with all requirements of its Local Electric Utility (including any other interconnecting utilities) that are necessary to enable the Customer to receive delivery service for the Allocation. Delivery of the Allocation shall be subject to the Utility Tariff;
 - b. paying its Local Electric Utility for delivery service associated with the Allocation in accordance with the Utility Tariff, and if the Authority incurs any charges associated with such delivery service, reimbursing the Authority for all such charges; and
 - c. obtaining any consents and agreements from any other person that are necessary for the delivery of the Allocation to the Facility, and complying with the requirements of any such person, provided that any such consents, agreements and requirements shall be subject to the Authority's approval.
2. The Authority will use good faith efforts to provide the Customer with at least one year's advance notice of the scheduled expiration of any Historic Fixed Price Transmission Congestion Contract to the extent same is applicable to the Allocation. After issuance of any such notice, the Authority will make itself available at reasonable times to collaborate with the Customer to discuss potential risk-hedging options that might be available following expiration of such contract.
3. The Authority will act as the LSE with respect to the NYISO or arrange for another entity to do so on the Authority's behalf, for the Allocation. Unless otherwise agreed to by the Authority, the Authority will not serve as the LSE for any other power or energy needed or used by the Customer.
4. The Customer understands and acknowledges that delivery of the Allocation will be made over transmission facilities under the control of the NYISO. The Customer agrees and understands that it shall be responsible to the Authority for all costs incurred by the Authority with respect to the Allocation for the services established in the NYISO Tariff, or other

applicable tariff (“NYISO Charges”), as set forth in Service Tariff No. 37A or any successor service tariff, regardless of whether such NYISO Charges are transmission-related.

ARTICLE VII

BILLING AND BILLING METHODOLOGY

1. The billing methodology for the Allocation shall be determined on a “load factor sharing” basis in a manner consistent with the Utility Tariff and any agreement between the Authority and the Customer’s Local Electric Utility. An alternative basis for billing may be used provided the Parties agree in writing and the local electric utility provides its consent if such consent is deemed necessary.
2. The Authority will render bills to the Customer for Electric Service relating to the Customer’s Allocation on or before the fifteenth (15th) business day of the month for charges due for the previous Billing Period. Bills will reflect the amounts due in accordance with the Agreement, Service Tariff No. 37A and the Rules, and are subject to adjustment as provided for in the Agreement, Service Tariff No. 37A and the Rules. Bills will include NYISO Charges and Taxes associated with the Allocation and all other applicable charges, fees and assessments provided for in the Agreement, Service Tariff No. 37A and the Rules. NYISO Charges shall be subject to adjustment consistent with any subsequent NYISO re-billings to the Authority.
3. Unless otherwise agreed to by the Authority and the Customer in writing, the Authority shall render bills to the Customer electronically.
4. Bills are due and payable by the Customer within twenty (20) days of the date on which the Authority renders the bill. Unless otherwise agreed to by the Authority in writing, bills are due and payable by electronic wire transfer in accordance with the Rules. Such wire transfer shall be made to J P Morgan Chase NY, NY / ABA021000021 / NYPA A/C # 008-030383, unless otherwise indicated in writing by the Authority.
5. The Authority and the Customer may agree in writing to an alternative method for the rendering of bills and for the payment of bills, including but not limited to the use of an Authority-established customer self-service web portal.
6. The Authority will charge and collect from the Customer all Taxes that the Authority determines are applicable, unless the Customer furnishes the Authority with proof satisfactory to the Authority that (a) the Customer is exempt from the payment of any such Taxes, and/or (b) the Authority is not obligated to collect such Taxes from the Customer. If the Authority is not collecting Taxes from the Customer based on the circumstances described in (i) or (ii) above, the Customer shall immediately inform the Authority of any change in circumstances relating to its tax status that would require the Authority to charge and collect such Taxes from the Customer.
7. If the Customer fails to pay any bill when due, the Authority may add an interest charge of two percent (2%) of the amount unpaid thereto as liquidated damages, and thereafter, as further liquidated damages, may add an additional interest charge of one and one-half percent

(1 1/2%) of the unpaid sum shall be added on the first day of each succeeding Billing Period until the amount due, including interest, is paid in full.

8. If the Customer disputes any item of any bill rendered by Authority, the Customer shall pay such bill in full within the time provided for by this Agreement, and adjustments, if appropriate, will be made thereafter.
9. If at any time after commencement of Electric Service the Customer fails to make complete and timely payment of any two (2) bills for Electric Service, the Authority may in its discretion: (a) require the Customer to deposit with the Authority a sum of money in an amount equal to all charges that would be due under this Agreement for Electric Service for two (2) consecutive calendar months as estimated by the Authority, which sum shall be deemed security for the payment of unpaid bills and/or other claims of the Authority against the Customer upon termination of Electric Service; (b) suspend Electric Service; or (c) modify or terminate Electric Service. If the Customer fails or refuses to provide a security deposit within thirty (30) days of a request pursuant to this provision, the Authority may modify, suspend, or terminate Electric Service to the Customer.
10. The rights and remedies provided to the Authority in this Article are in addition to any and all other rights and remedies available to Authority at law or in equity.

ARTICLE VIII

HYDROPOWER CURTAILMENTS AND SUBSTITUTE ENERGY

1. The Customer shall, on a form provided by the Authority, elect to either (a) purchase Substitute Energy from the Authority, or (b) rely on Customer-Arranged Energy, for the purpose of replacing Firm Hydroelectric Energy that is not supplied to the Customer due to a Planned Hydropower Curtailment. The Customer shall make its election in accordance with the time period and other requirements prescribed in such form. The election shall apply for the entire calendar year identified in the form.
2. The Customer may change its election on a form provided by the Authority by giving the Authority notice of such change no later than the first day of November preceding the calendar year to which the Customer intends such change to become effective. Such change shall be effective on the first day of January following the Authority's receipt the Customer's notice and shall remain in effect unless it is changed in accordance with the provisions of Section VIII.1.
3. In the event of an anticipated or planned Adverse Water Condition, the Authority will have the right in its discretion to implement Planned Hydropower Curtailments. The Authority will implement Planned Hydropower Curtailments on a non-discriminatory basis as to all Authority customers that are served by the Project. The Authority will provide the Customer with advance notice of Planned Hydropower Curtailments that in the Authority's judgment will impact Electric Service to the Customer no later than the tenth business day of the month prior to the month in which the Planned Hydropower Curtailment is expected to occur unless the Authority is unable to provide such notice due to the circumstances that impede such notice, in which case the Authority will provide such advance notice that is practicable under the circumstances.

4. If the Customer elected to purchase Substitute Energy from the Authority, the Authority shall provide Substitute Energy to the Customer during all Planned Hydropower Curtailments. Unless otherwise agreed upon by the Parties in writing, Substitute Energy shall be sourced from markets administered by the NYISO. The Authority may require the Customer to enter into one or more separate agreements to facilitate the provision of Substitute Energy to the Customer.
5. If the Customer elected to rely on Customer-Arranged Energy, the Authority shall have no responsibility to provide the Customer with Substitute Energy during any Planned Hydropower Curtailment, and the Customer shall be responsible for the procurement, scheduling, delivery and payment of all costs associated with Customer-Arranged Energy.
6. The Customer shall have the right to reduce its load in response to a Planned Hydropower Curtailment (a "Load Reduction"), provided, however, that the Customer shall, on an Authority form, provide the Authority with no less than seven (7) days' advance notice of the time period(s) during when the Load Reduction will occur, the estimated amount of the Load Reduction (demand and energy), and all other information required by such form. The Authority will confirm whether the notice provides the required information and proposed Load Reduction has been accepted. The Customer shall reimburse the Authority for all costs that the Authority incurs as a result of the Customer's failure to provide such notice.
7. In the event of an Adverse Water Condition that the Authority did not anticipate or forecast, the Authority shall have the right in its discretion to implement Unplanned Hydropower Curtailments. The Unplanned Hydropower Curtailments will be implemented on a non-discriminatory basis as to all Authority customers that are served by the Project.
8. The Authority will provide the Customer with notice of Unplanned Hydropower Curtailments that in the Authority's judgment will impact Electric Service to the Customer within five (5) business days after the first occurrence of an Unplanned Hydropower Curtailment that occurs within a month, and thereafter will provide the Customer with reasonable notice under the circumstances of the potential for any other Unplanned Hydropower Curtailments that are expected to occur within such month or beyond. The Authority will give the Customer notice of any Unplanned Hydropower Curtailments that the Authority believes are likely to exceed forty-eight (48) continuous hours in duration.
9. Notwithstanding the Customer's election pursuant to Section VIII.1, the Authority shall provide the Customer with Substitute Energy during Unplanned Hydropower Curtailments.
10. For each kilowatt-hour of Substitute Energy provided by the Authority during a Planned Hydropower Curtailment, the Customer shall pay the Authority directly during the billing month: (1) the difference between the market cost of the Substitute Energy and the charge for Firm Hydroelectric Energy as provided for in this Agreement; and (2) any NYISO charges and taxes the Authority incurs in connection with the provision of such Substitute Energy. Unless otherwise agreed upon by the Parties in writing, billing and payment for Substitute Energy provided for Planned Hydropower Curtailments shall be governed by the provisions of Service Tariff No. 37A relating to the rendition and payment of bills for Electric Service.

11. The Customer shall be responsible for all costs associated with the Authority's provision of Substitute Energy during Unplanned Hydropower Curtailments. Unless otherwise agreed upon by the Parties in writing, billing and payment for Substitute Energy provided for Unplanned Hydropower Curtailments shall be governed by the provisions of Service Tariff No. 37A relating to the rendition and payment of bills for Electric Service.
12. The Authority shall be under no obligation to deliver and will not deliver any such curtailed energy to the Customer in later billing periods.
13. The Customer shall not be entitled to power and energy sourced from another Authority power facility, including another Authority hydropower project, as Substitute Energy.

ARTICLE IX

EFFECTIVENESS, TERM AND TERMINATION

1. This Agreement shall become effective and legally binding on the Parties on the Effective Date.
2. Once commenced, Electric Service under the Agreement shall continue until the earliest of: (a) termination by the Customer with respect to its Allocation upon ninety (90) days prior written notice to the Authority; (b) termination by the Authority pursuant to this Agreement, Service Tariff No. 37A, or the Rules; or (c) expiration of the Allocation by its own term as specified in Schedule A.
3. The Customer may exercise a partial termination of the Allocation upon at least sixty (60) days' prior written notice to the Authority. The Authority will effectuate the partial termination as soon as practicable after receipt of such notice taking account of the Authority's internal procedures and requirements of the Customer's Local Electric Utility.
4. The Authority may cancel service under this Agreement or modify the quantities of Firm Hydroelectric Power and Firm Hydroelectric Energy associated with the Allocation: (1) if such cancellation or modification is required to comply with any final ruling, order or decision of any regulatory or judicial body of competent jurisdiction (including any licensing or re-licensing order or orders of the FERC or its successor agency); or (2) as otherwise provided in this Agreement, Service Tariff No. 37A, or the Rules.

ARTICLE X

EXTENSIONS OF ALLOCATION; AWARD OF ADDITIONAL ALLOCATIONS

1. The Customer may apply to the Authority for an extension of the term of the Allocation identified in Schedule A:
 - a. during the eighteen (18) month period immediately preceding the scheduled expiration of the Allocation;
 - b. pursuant to any other process that the Authority establishes; or
 - c. with the Authority's written consent.

2. Upon proper application by the Customer, the Authority may in accordance with applicable law and Authority procedures award additional allocations of power and energy to the Customer at such rates and on such terms and conditions as the Authority establishes. If the Customer agrees to purchase Electric Service associated with any such additional allocation, the Authority will (a) incorporate any such additional allocations into Schedule A, or in its discretion will produce a supplemental schedule, to reflect any such additional allocations, as the Authority determines to be appropriate. The Authority will furnish the Customer with any such modified Schedule A or supplemental schedule within a reasonable time after commencement of Electric Service for any such additional allocation.
3. In addition to any requirements imposed by law, the Customer hereby agrees to furnish such documentation and other information as the Authority requests to enable the Authority to evaluate any requests for extension of the Allocation or additional allocations and consider the terms and conditions that should be applicable of any extension or additional allocations.

ARTICLE XI

NOTICES

1. Notices, consents, authorizations, approvals, instructions, waivers or other communications provided in this Agreement shall be in writing and transmitted to the Parties as follows:

To: The Authority

New York Power Authority
123 Main Street
White Plains, New York 10601
Email: MED-BPAC@nypa.gov
Facsimile: (914) 390-8156
Attention: Manager – Business Power Allocations and Compliance

To: The Customer

Niagara Frontier Transportation Authority

Address: _____

Email: _____

Facsimile: _____

Attention: _____ (Name/ Title)

2. The foregoing notice/notification information pertaining to either Party may be changed by such Party upon notification to the other Party pursuant to Section XI.1.
3. Except where otherwise herein specifically provided, any notice, communication or request required or authorized by this Agreement by either Party to the other shall be deemed properly given: (a) if sent by U.S. First Class mail addressed to the Party at the address set forth above; (b) if sent by a nationally recognized overnight delivery service, two (2)

calendar days after being deposited for delivery to the appropriate address set forth above; (c) if delivered by hand, with written confirmation of receipt; (d) if sent by facsimile to the appropriate fax number as set forth above, with written confirmation of receipt; or (e) on the date of transmission if sent by electronic communication to the appropriate address as set forth above, with confirmation of receipt. Either Party may change the addressee and/or address for correspondence sent to it by giving written notice in accordance with the foregoing.

ARTICLE XII

SUCCESSORS AND ASSIGNS; RESALE OF HYDROPOWER

1. This Agreement shall be binding upon, shall inure to the benefit of, and may be performed by, the legal successors and assigns of either Party hereto, provided that no assignment by either Party or any successor or assignee of such Party of its rights and obligations hereunder shall be made or become effective without the prior written consent of the other Party. Notwithstanding the foregoing sentence, the Authority may require such approvals, and such consents and other agreements from the Customer and other parties, that the Authority determines are necessary in order to effectuate any such assignment.
2. The Customer may not transfer any portion of the Allocation to any other person, or a location different than the Facility, unless: (a) the Authority in its discretion authorizes the transfer; (b) all other requirements applicable to a transfer, including board approvals, are satisfied; and (c) the transfer is effectuated in a form and subject to such terms and conditions approved by the Authority. Any purported transfer that does not comply with the foregoing requirements shall be invalid and constitute grounds for the Authority in its discretion to suspend Electric Service or terminate the Allocation and/or this Agreement.
3. The Customer may not sell any portion of the Allocation to any other person. Any purported sale shall be invalid and constitute grounds for the Authority in its discretion to suspend Electric Service or terminate the Allocation and/or this Agreement.

ARTICLE XIII

MISCELLANEOUS

1. Choice of Law

This Agreement shall be governed by and construed in accordance with the laws of the State of New York to the extent that such laws are not inconsistent with the FERC License, superseding federal laws or regulations, and rulings by the IJC and without regard to conflicts of law provisions.

2. Venue

The Parties: (a) consent to the exclusive jurisdiction and venue of any state court within or for Albany County, New York, with subject matter jurisdiction for adjudication of any claim, suit, action or any other proceeding in law or equity arising under, or in any way relating to this Agreement; (b) agree to accept service of process; and (c) will not raise any

argument of inconvenient forum.

3. Previous Agreements; Modifications; and Interpretation

- a. This Agreement shall constitute the sole and complete agreement of the Parties hereto with respect to the sale of the Allocation and the subject matter of the Agreement, and supersedes all previous communications and agreements between the Parties, oral or written, with reference to the sale of the Allocation.
- b. No modifications of this Agreement shall be binding upon the Parties hereto or either of them unless such modification is in writing and is signed by a duly authorized officer of each of them.
- c. No provision shall be construed against a Party on the basis that such Party drafted such provision.

4. Waiver

Any waiver at any time by either the Authority or the Customer of their rights with respect to a default or of any other matter arising out of this Agreement shall not be deemed to be a waiver with respect to any other default or matter. No waiver by either Party of any rights with respect to any matter arising in connection with this Agreement shall be effective unless made in writing and signed by the Party making the waiver.

5. Severability and Voidability

If any term or provision of this Agreement shall be invalidated, declared unlawful or ineffective in whole or in part by an order of the FERC or a court of competent jurisdiction, such order shall not be deemed to invalidate the remaining terms or provisions hereof. Notwithstanding the preceding sentence, if any provision of this Agreement is rendered void or unenforceable or otherwise modified by a court or agency of competent jurisdiction, the entire Agreement shall, at the option of either Party and only in such circumstances in which such Party's interests are materially and adversely impacted by any such action, be rendered void and unenforceable by such affected Party.

ARTICLE XIV
EXECUTION

To facilitate execution, this Agreement may be executed in as many counterparts as may be required, and it shall not be necessary that the signatures of, or on behalf of, each Party, or that the signatures of all persons required to bind any Party, appear on each counterpart; but it shall be sufficient that the signature of, or on behalf of, each Party, or that the signatures of the persons required to bind any Party, appear on one or more of the counterparts. All counterparts shall collectively constitute a single agreement. It shall not be necessary in making proof of this Agreement to produce or account for more than a number of counterparts containing the respective signatures of, or on behalf of, all Parties hereto. The delivery of an executed counterpart of this Agreement as a PDF or similar file type transmitted via electronic mail, cloud

based server, e-signature technology or similar electronic means shall be legal and binding and shall have the same full force and effect as if an original executed counterpart of this Agreement had been delivered.

[SIGNATURES FOLLOW ON NEXT PAGE]

AGREED:

NIAGARA FRONTIER TRANSPORTATION AUTHORITY

By: _____

Title: _____

Date: _____

AGREED:

POWER AUTHORITY OF THE STATE OF NEW YORK

By: _____
John R. Koelmel, Chairman

Date: _____

SCHEDULE A
UNBRANDED STL PROJECT POWER ALLOCATIONS

Customer: Niagara Frontier Transportation Authority

No.	Allocation Amount (kW)	Facility and Address	Trustee Approval Date	Allocation Expiration Date
1	1,000	1. Delavan Station, 16 E. Delavan Avenue, Buffalo, NY 14208 2. Yards and Shops Station, 33 South Park Avenue, Buffalo, NY 14203	December 11, 2019*	December 31, 2024
2	2,300	Niagara Falls Air Force Base, Niagara Falls, New York, 14304	December 11, 2019**	December 31, 2024

For Authority Internal Reference Only

*Trustee approval date for original allocation: May 28, 1985

**Trustee approval date for original allocation: December 16, 2003

SCHEDULE B

TAKEDOWN SCHEDULE

SCHEDULE C
ZERO EMISSION CREDIT CHARGE

I. DEFINITIONS

When used with initial capitalization, whether singular or plural, the following terms, as used in this Schedule, shall have the meanings as set forth below. Capitalized terms not defined in this Schedule shall have the meaning ascribed to them elsewhere in the Agreement, in Service Tariff No. 37A, or in the Rules.

“Affected LSEs” has the meaning provided in Section II.2 of this Schedule C.

“CES Order” means the Order issued by the PSC entitled “Order Adopting a Clean Energy Standard, issued on August 1, 2016, in Case Nos. 15-E-0302 and 16-E-0270, and includes all subsequent orders amending, clarifying and/or implementing such Order or the RES.

“Government Action” has the meaning provided in Section II.8 of this Schedule C.

“Load Serving Entity” or “LSE” has the meaning provided in the CES Order.

“NYSERDA” means the New York State Energy Research and Development Authority.

“Public Service Commission” means the New York State Public Service Commission.

“Renewable Energy Standard” or “RES” means the Renewable Energy Standard adopted by the State in the CES Order.

“RES Compliance Program” means a program or initiative that the Authority has adopted for the purpose of meeting the RES for the load that the Authority serves under its Unbranded STL Project Power Program.

“State Energy Plan” means the 2015 New York State Energy Plan as amended from time to time.

“Unbranded STL Project Power Program ZEC Costs” has the meaning provided in Section II.4.b of this Schedule C.

“Zero Emission Credit” or “ZEC” has the meaning provided in the CES Order.

“Zero Emission Credit Charge” or “ZEC Charge” means the charge to the Customer established in this Schedule C.

“ZEC Program Year” has the meaning provided in Section II.2 of this Schedule C.

“ZEC Purchase Obligation” has the meaning provided in Section II.2 of this Schedule C.

II. ZEC CHARGE

1. Notwithstanding any other provision of the Agreement, or any provision of Service Tariff No. 37A or the Rules, as of January 1, 2019, the Customer shall be subject to a ZEC Charge as provided in this Schedule C. The ZEC Charge shall be in addition to all other charges, fees and assessments provided for in the Agreement, Service Tariff No. 37A and the Rules. By accepting Electric Service under the Agreement, the Customer agrees to pay the ZEC Charge.
2. As provided in the CES Order, the Public Service Commission, as part of the CES and Tier 3 of the Renewable Energy Standard, imposed an obligation on Load Serving Entities that are subject to the CES Order (“Affected LSEs”) to purchase Zero Emission Credits from NYSERDA in an amount representing the Affected LSE’s proportional share of ZECs calculated on the basis of the amount of electric load the LSE serves in relation to the total electric load served by all Load Serving Entities in the New York Control area, to support the preservation of existing at risk nuclear zero emissions attributes in the State (the “ZEC Purchase Obligation”). The ZEC Purchase Obligation is implemented on the basis of program years running from April 1 through March 31 of each year (“ZEC Program Year”).
3. The ZEC Charge is part of a RES Compliance Program that the Authority has adopted for the purpose of supporting the CES and Tier 3 of the RES and implementing its Unbranded STL Project Power Program in a manner that is consistent with the New York State Energy Plan. The Authority will comply with the CES and Tier 3 of the RES by applying a form of ZEC Purchase Obligation to the end-user load for which the Authority serves as a Load Serving Entity, including the load that the Authority serves under its Unbranded STL Project Power Program.
4. The ZEC Charge, which is intended to recover from the Customer costs that the Authority incurs for purchasing ZECs in quantities that are attributable to the Customer’s Unbranded STL Project Power load, will be determined and assessed to the Customer as follows:

- a. The cost of the total ZEC Purchase Obligation for all LSEs in the New York Control Area, including the Authority as a participating Load Serving Entity, will be assessed pursuant to the methodology provided in the CES Order. The Authority will purchase its proportionate share of ZECs from NYSERDA based on the proportion of the forecasted total kilowatt-hours load served by the Authority (i.e., total Authority LSE load) in relation to the forecasted total kilowatt-hours load served by all LSEs in the New York Control Area as provided in the CES Order. The ZEC Purchase Obligations may be based on initial load forecasts with reconciliations made at the end of each ZEC Program Year by NYSERDA.
 - b. The Authority will allocate costs from its ZEC Purchase Obligation between its power programs/load for which it serves as Load Serving Entity, including Unbranded STL Project Power load that it serves (the “Unbranded STL Project Power Program ZEC Costs”). Such cost allocation will be based on the forecasted kilowatt-hours load of Unbranded STL Project Power Program load to be served by the Authority in relation to the forecasted total kilowatt-hours load served by the Authority (total Authority LSE load) for each ZEC Program Year. In addition, any balance resulting from the ZEC Program Year-end reconciliation of ZEC Purchase Obligations will be allocated to such Unbranded STL Project Power Program load based on the proportion of the actual annual kilowatt-hours load served under such program to total actual annual kilowatt-hours load served by the Authority (total Authority LSE load).
 - c. The Authority will allocate a portion of the Unbranded STL Project Power Program ZEC Costs to the Customer as the ZEC Charge based on the proportion of the Customer’s actual kilowatt-hours load for Unbranded STL Project Power purchased by the Customer to total kilowatt-hours load served by the Authority for all Unbranded STL Project Power Program (i.e., Unbranded STL Project Power Program level load). In addition, any balance resulting from the ZEC Program Year-end reconciliation of the ZEC Purchase Obligation referenced above will be passed through to the Customer based on the proportion of the Customer’s annual kilowatt-hours load purchased under this Agreement to total annual kilowatt-hours load served Unbranded STL Project Power (Unbranded STL Project Power Program level load). The ZEC Charge assessed to the Customer shall not include any costs resulting from the Authority’s inability to collect a ZEC Charge from any other Authority customer.
5. The Authority may, in its discretion, include the ZEC Charge as part of the monthly bills for Electric Service as provided for in the Agreement, or bill the Customer for the ZEC Charge pursuant to another Authority-established procedure.

6. The Authority may, in its discretion, modify the methodology used for determining the ZEC Charge and the procedures used to implement such ZEC Charge on a nondiscriminatory basis among affected Unbranded STL Project Power customers, upon consideration of such matters as Public Service Commission orders modifying or implementing the CES Order, guidance issued by the New York Department of Public Service, and other information that the Authority reasonably determines to be appropriate to the determination of such methodology. The Authority shall provide Customer with reasonable notice of any modifications to the methodology or procedures used to determine and implement the ZEC Charge.
7. Nothing in this Schedule shall limit or otherwise affect the Authority's right to charge or collect from the Customer any rate, charge, fee, assessment, or tax provided for under any other provision of the Agreement, or any provision of Service Tariff No. 37A or the Rules.
8. If the ZEC Purchase Obligation is modified or terminated by the Public Service Commission or other controlling governmental authority (collectively, "Government Action"), the Authority shall modify or terminate the ZEC Charge, and assess any additional charges or provide any credits to the Customer, to the extent that the Authority determines such actions to be appropriate based on such Government Action.

SCHEDULE D
MONTHLY RENEWABLE ENERGY CREDIT CHARGE

I. DEFINITIONS

When used with initial capitalization, whether singular or plural, the following terms, as used in this Schedule, shall have the meanings as set forth below. Capitalized terms not defined in this Schedule shall have the meaning ascribed to them elsewhere in the Agreement, in Service Tariff No. 37A, or in the Rules.

“Alternative REC Compliance Program” has the meaning provided in Section III.1 of this Schedule D.

“Annual REC Percentage Target” has the meaning provided in Section II.2 of this Schedule D.

“CES Order” means the Order issued by the Public Service Commission entitled “Order Adopting a Clean Energy Standard, issued on August 1, 2016, in Case Nos. 15-E-0302 and 16-E-0270, and includes all subsequent orders amending, clarifying and/or implementing such Order or the RES.

“Clean Energy Standard” or “CES” means the Clean Energy Standard adopted by the State in the CES Order.

“Load Serving Entity” has the meaning provided in the CES Order.

“Mandatory Minimum Percentage Proportion” has the meaning provided in the CES Order.

“Monthly Renewable Energy Credit Charge” or “Monthly REC Charge” means the monthly charge to the Customer established in this Schedule D.

“NYSERDA” means the New York State Energy Research and Development Authority.

“Public Service Commission” means the New York State Public Service Commission.

“REC Compliance Measures” means: (1) the Authority’s procurement of RECs from NYSERDA in accordance with NYSERDA procedures and/or the CES Order; (2) the Authority’s procurement of RECs from available REC markets; (3) the Authority’s procurement of RECs from sources other than those identified in items (1) and (2) of this definition, including through a procurement process adopted by the Authority; and/or (4) any other measure that the PSC authorizes a Load Serving Entity to implement for the purpose of meeting the applicable Mandatory Minimum Percentage Proportion.

“Renewable Energy Credit” or “REC” refers to a qualifying renewable energy credit as described in the CES Order.

“Renewable Energy Standard” or “RES” means the Renewable Energy Standard adopted by the State in the CES Order.

“RES Compliance Program” means a program or initiative that the Authority has adopted for the purpose of meeting the RES for the load that the Authority serves under the Unbranded STL Project Power Program as authorized in the Power Authority Act.

“State Energy Plan” means the 2015 New York State Energy Plan as amended from time to time.

“Total Monthly REC Costs” has the meaning provided in Section II.3.b of this Schedule D.

“Total Monthly Unbranded STL Project Power Load” has the meaning provided in Section II.3.b of this Schedule D.

II. MONTHLY REC CHARGE

1. Notwithstanding any other provision of the Agreement, or any provision of Service Tariff No. 37A or the Rules, as of January 1, 2019, the Customer shall be subject to a Monthly REC Charge as provided in this Schedule D. The Monthly REC Charge is in addition to all other charges, fees and assessments provided in the Agreement, Service Tariff No. 37A and the Rules. By accepting Electric Service under the Agreement, the Customer agrees to pay the Monthly REC Charge.
2. The Monthly REC Charge is part of a RES Compliance Program that the Authority has adopted for the purpose of complying with the CES and Tier 1 of the RES and implementing its Unbranded STL Project Power Program in a manner that is consistent with the New York State Energy Plan, pursuant to which the Authority will invest in new renewable generation resources to serve its Unbranded STL Project Power customers. Such investments will be made through the procurement of RECs through REC Compliance Measures in quantities that are intended to address the annual Mandatory Minimum Percentage Proportions as applied by the Authority to the total Unbranded STL Project Power load that the Authority will serve each calendar year (the “Annual REC Percentage Target”) for the purpose of ultimately meeting the RES.

3. The Monthly REC Charge, which is intended to recover from the Customer costs that the Authority incurs for implementing REC Compliance Measures that are attributable to the Customer's Unbranded STL Project Power load served under this Agreement, will be determined and assessed to the Customer as follows:
 - a. The Authority shall have the right, for each calendar year to implement such REC Compliance Measures as it determines in its discretion to be appropriate for the purpose of meeting the Annual REC Percentage Target for the total Unbranded STL Project Power load that it will serve during such calendar year.
 - b. The Authority will, for each month of each calendar year, calculate the total costs ("Total Monthly REC Costs") that the Authority has incurred or estimates that it will incur from implementing RES Compliance Measures for the purpose of meeting the Annual REC Percentage Target for the total Unbranded STL Project Power ("Total Monthly Unbranded STL Project Power Load"). The Total Monthly REC Costs may be calculated based on forecasts of the Total Monthly Unbranded STL Project Power Load that the Authority expects to serve for the month, or on a lagged basis based on the actual Total Monthly Unbranded STL Project Power Load that the Authority served for the month.
 - c. Each month, the Authority will assess to the Customer, as a Monthly REC Charge, which will represent the Customer's share of the Total Monthly REC Costs assessed to the Total Monthly Unbranded STL Project Power Load. The Monthly REC Charge will be assessed as the proportion of the Customer's total kilowatt-hours load served by the Authority for such month to the Total Monthly Unbranded STL Project Power Load served by the Authority for such month, provided, however, that:
 - i. the Monthly REC Charge to the Customer shall not include any costs associated with the Authority's inability to collect the Monthly REC Charge from other Authority customers; and
 - ii. the effective per-MWh rate of the Monthly REC Charge to the Customer averaged over the REC Program Year to which the Annual REC Percentage Target applies shall not exceed the per-MWh rate of a Monthly REC Charge based on NYSERDA's published REC price for the REC Program Year.
4. The Authority may, in its discretion, include the Monthly REC Charge as part of the monthly bills for Electric Service as provided for in the Agreement, or bill the Customer for the Monthly REC Charge pursuant to another Authority-established procedure.

5. The Authority will, at the conclusion of each calendar year in which it assesses a Monthly REC Charge, conduct a reconciliation process based on the actual costs that it incurred for REC Compliance Measures and actual load served for the year, compared with cost or load estimates or forecasts, if any, that the Authority used to calculate the Customer's Monthly REC Charges during the year. The Authority will issue a credit, or an adjusted final charge for the year, as appropriate, based on the results of such reconciliation process. Any such final charge shall be payable within the time frame applicable to the Authority's bills for Electric Service under this Agreement or pursuant to any other procedure established by the Authority pursuant to Section II.4 of this Schedule D.
6. Notwithstanding the provisions of Section II.3 of this Schedule D, if Electric Service for the Allocation is commenced after the Authority has implemented REC Compliance Measures for the year in which such Electric Service is commenced, and as a result the Customer's load cannot be accounted for in such REC Compliance Measures, the Authority may in its discretion implement separate REC Compliance Measures in order to meet the Annual REC Percentage Target for Customer's load for the year, and bill the Customer for the costs associated with such separate REC Compliance Measures.
7. Nothing in this Schedule shall limit or otherwise affect the Authority's right to charge or collect from the Customer, any rate, charge, fee, assessment, or tax provided for under any other provision of the Agreement, or any provision of Service Tariff No. 37A or the Rules.

III. ALTERNATIVE REC COMPLIANCE PROGRAM

1. Nothing in this Schedule D shall be construed as preventing the Parties from entering into other agreements for an alternative arrangement for the Authority to meet the Annual REC Percentage Target with respect to the Customer's Allocation, including but not limited to Customer self-supply of RECs, alternative REC compliance programs and cost allocation mechanisms, in lieu of the Monthly REC Charge provided in this Schedule D (collectively, "Alternative REC Compliance Program").
2. The Authority shall communicate at least biennially with the Customer concerning implementation of the RES Compliance Program and potential Alternative REC Compliance Programs, if any, that the Authority is offering or expects to offer.



POWER AUTHORITY OF THE STATE OF NEW YORK
30 SOUTH PEARL STREET
ALBANY, NY 12207

Electric Service Tariff for the Sale of Unbranded
Firm St. Lawrence-FDR Project Power and Energy

Service Tariff No. 37A

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Schedule of Rates for Firm Hydroelectric Power and Energy Service

I. Applicability

To sale of unbranded St. Lawrence-FDR Hydroelectric Project firm power and firm energy (as further defined below) to the Customer.

II. Abbreviations and Terms

A. The following abbreviations are used:

kW	kilowatt(s)
kWh	kilowatt-hour(s)
NYPA	New York Power Authority
NYISO	New York Independent System Operator

B. The term “Agreement” means the contract between the Authority and the Customer setting forth the terms and conditions relating to the provision of Electric Service to the Customer and to which this Service Tariff relates.

C. The term “Authority” means the Power Authority of the State of New York, also known as the New York Power Authority.

D. The term “Billing Demand” has the meaning set forth in Section IV.D.1. of this Service Tariff.

E. The term “Billing Energy” has the meaning set forth in Section IV.D.2. of this Service Tariff.

F. The term “Contract Demand” has the meaning set forth in Section III.D. of this Service Tariff.

G. The term “Customer” means the Authority’s co-party to the Agreement.

H. The term “Energy” or “Firm Hydroelectric Energy” means energy (kWh) associated with Firm Hydroelectric Power.

I. The term “Load Factor Share” or “LFS” has the meaning set forth in Section IV.D.3. of this Service Tariff.

- J. The term "Power" or "Firm Hydroelectric Power" means capacity (kW) from the Project, intended to be available at all times except for limitations as provided in the Agreement, this Service Tariff or the Rules.
- K. The term "Project" means the Authority's St. Lawrence-FDR Hydroelectric Project.
- L. The term "Rules" means Authority's Rules and Regulations for Power Service (Part 454 of Chapter X of Title 21 of the Official Compilation of Codes, Rules and Regulations of the State of New York, 21 NYCRR § 454) as now in effect and as may be later amended from time to time by Authority.
- M. The term "Service Tariff" means this Service Tariff No. 37A.

Additional terms are defined in the text of this Service Tariff.

Unless otherwise indicated, all other capitalized terms and abbreviations used but not defined in this Service Tariff shall have the meaning as set forth in the Agreement. If not defined herein or in the Agreement, any such capitalized terms and abbreviations shall have the meaning ascribed to them in the NYISO Tariffs, if any, unless the context requires otherwise.

III. Monthly Rates and Charges

A. Monthly Base Rates

The monthly demand and energy charges paid by Customer to Authority shall be based on the preference power rates charged by Authority, as shown below.

<u>Period</u>	<u>Demand Rate</u> \$/kW-month of contract demand	<u>Energy Rate</u> Mills/kWh
5/1/2019 until superseded/adjusted*	4.07	4.92

*The Monthly Base Rates and Charges shall be subject to adjustment in the same manner and on the same schedule as are the monthly rates and charges for Authority customers that receive Electric Service under Authority Service Tariff No. 38A and Service Tariff No. 39A.

The demand rate and energy rate set forth above will apply at the Project switchyard.

B. Minimum Monthly Demand Charge

The product of the demand rate set forth above and the Contract Demand.

C. Minimum Monthly Energy Charge

The product of the energy rate set forth above and the amount of energy allocated under this Service Tariff.

D. Contract Demand

The maximum hydroelectric kilowatts contracted for in the Agreement, as measured at the Authority's generating station switchyard, subject to modification as provided in General Provision F of this Service Tariff.

E. Billing Period

Any period of approximately thirty (30) days, generally ending with the last day of each calendar month.

F. NYISO Transmission and Related Charges ("NYISO Charges")

The Customer shall compensate the Authority for the following NYISO Charges assessed on the Authority, if any, for services provided by the NYISO or any successor organization pursuant to its Open Access Transmission Tariff ("OATT") or other tariffs (as the provisions of those tariffs may be amended and in effect from time to time) which are associated with Customer's purchase of hydro power and energy under its contract for the sale of hydro power and energy with Authority:

1. Ancillary Services 1 through 6 and any new ancillary services as may be defined and included in the OATT from time to time;
2. Marginal losses;
3. The New York Power Authority Transmission Adjustment Charge ("NTAC");
4. Congestion costs, less any associated grandfathered Transmission Congestion Contracts ("TCCs") as provided in Attachment K of the OATT;
5. Any and all other charges, assessments or other amounts associated with deliveries to Customer or otherwise associated with the Authority's responsibilities as agent for the Customer in the performance of Load Serving Entity functions that are assessed on the Authority by the NYISO or any successor organization under the provisions of its OATT or under other applicable tariffs; and
6. Any charges assessed on the Authority with respect to service to Customers for facilities needed to maintain reliability or incurred in connection with the NYISO's Comprehensive System Planning Process (including both economic projects and reliability backstop projects) with respect to power service to Customers under this Service Tariff, or required to be paid by the Authority in accordance with law, whether charged by the NYISO or some other third party.

The NYISO Charges in this section, to the extent applicable, are in addition to the Authority production charges that are charged to the Customer in accordance with other provisions of this Service Tariff.

G. Taxes and Other Charges

The charges under this Service Tariff shall be subject to adjustment as Authority deems necessary to recover from Customer any rates, taxes, assessments charged to Authority or any other charges mandated by federal, state and local agencies that are levied on the Authority or that the Authority is required to collect from its Customer if and to the extent such rates, charges, taxes or assessments are not recovered by Authority pursuant to another provision of this Service Tariff.

IV. General Provisions

General provisions for service supplementing the Agreement and the Rules with regard to deliveries to Customer are as follows:

A. Character of Service

Alternating current, 60 hertz, three-phase.

B. Adjustment of Rates

The rates for power and energy contained in this Service Tariff may be revised by the Authority from time to time on not less than 30 days written notice to Customer.

C. Adjustment of Charges

1. Transformer Losses

If delivery is made at transmission voltage but metered on the low-voltage side of Customer's substation, the meter readings will be adjusted by an amount based upon the manufacturer's actual test report for such transformer or for a transformer of similar age and type, or in the absence of such test reports, the meter readings will be increased two percent to compensate for transformer losses.

2. Power Factor

Customer shall maintain a power factor at the point of delivery of not less than 90 percent lagging or leading.

D. Billing Methodology

1. Billing Demand

The highest 15- or 30-minute integrated demand charged by the Authority, as determined by the Customer's Local Electric Utility, during each Billing Period recorded on the Customer's meter multiplied by a percentage based on the Load Factor Share ("LFS") methodology, as defined in IV.D.3. Billing Demand may not exceed the amount of the Contract Demand.

2. Billing Energy

The kilowatt-hours charged by the Authority to the Customer will be the total number of kilowatt-hours recorded on the Customer's meter for the Billing Period multiplied by a percentage based on the LFS methodology.

3. LFS Methodology Calculation

- a. For every hour of the Billing Period, the Customer receives hydropower energy (Firm Energy) equal to the hourly metered load multiplied by the ratio of Customer's Contract Demand divided by the maximum hourly metered load value recorded in a given Billing Period, such ratio not to exceed the value of 1.
- b. When the maximum hourly metered demand for the Billing Period is less than or equal to the Contract Demand, all of the Customer's metered load will be supplied by Firm Hydroelectric Energy.
- c. When the maximum hourly metered demand for the Billing Period is greater than the Contract Demand, the portion of the Customer's metered load to be supplied by Firm Hydroelectric Energy is as follows:
 - i. For Customer with hourly billing: the sum of the values, for each hour of the Billing Period, of the Contract Demand divided by the maximum hourly metered demand in the Billing Period multiplied by the hourly metered energy consumption.
 - ii. For Customer with monthly billing: the Contract Demand divided by the maximum hourly metered demand in the Billing Period multiplied by the total metered energy consumption during the Billing Period.
- d. All demand values will be adjusted for losses.

E. Construction, Operation and Maintenance of the Customer's Power System

For the purpose herein, Customer's power system shall mean the power system of Customer and of any purchaser, transmitter or distributor designated by Customer to receive or handle the power contracted for herein, and for the purposes of this Provision, Authority's power system shall mean all facilities over which power and energy are delivered to Customer or Customer's Transmission/Distribution Agent(s), whether or not owned by the Authority. Customer shall require all such purchasers, transmitters, or distributors to construct, operate and maintain their power system and/or electrical equipment in a manner which will not interfere with any service supplied from Authority's power system. If, after reasonable notice of an unsatisfactory condition on Customer's power system, which interferes or may interfere with any service supplied from Authority's power system, Customer fails or refuses to cause such changes to be made as may be necessary to eliminate such unsatisfactory condition, Authority may discontinue furnishing electric service to Customer so long as such interference exists. Such a discontinuance of electric service will not relieve Customer of liability for the minimum monthly charges provided for herein during the term said electric service is so discontinued. Nothing in this paragraph shall be construed to render Authority liable for any claims, demands, costs, losses, causes of action, damages, or liability of whatsoever kind or nature arising out of or resulting from the construction, operation or maintenance of Customer's power system.

F. Cancellation of Modification

Electric Service hereunder shall be subject to cancellation by Customer for any reason upon 90 days prior written notice to Authority. The Authority may cancel service hereunder or modify the quantities of power and associated energy allocated to Customer (1) if cancellation or modification is deemed warranted by Authority's Trustees (a) by reason of any ruling, order or decision of any regulatory or judicial body having jurisdiction in the premises, or (b) to comply with any state or federal law affecting the allocation of Authority power and energy. Such cancellation or modification to be effective in accordance with the terms of any such ruling, order, decision or law or (2) as otherwise provided herein or in Authority's Rules. The foregoing rights and remedies are in addition to the Authority's rights and remedies provided in the Agreement and the Rules.

G. Apportionment of Service

If Customer combines service under this Service Tariff with power and energy from any other source(s), the portion of the total power and energy utilized by Customer from all sources shall be apportioned to this Service Tariff as determined by Authority and the provider of such other service.

H. Payment by Customer for Firm Hydroelectric Power and Firm Hydroelectric Energy

Terms and conditions relating to Customer billing are set forth in the Agreement.

I. Conflicts

In the event of any inconsistencies, conflicts, or differences between the provisions of this Service Tariff and the Rules, the provisions of this Service Tariff shall govern. In the event of any inconsistencies, conflicts or differences between the provisions of the Agreement and this Service Tariff or the Rules, the provisions of the Agreement shall govern.

v. Flow Adjustment Computation ("FAC")

The energy charges under this Service Tariff, and the applicable service tariffs associated with the Project are subject to a credit or surcharge pursuant to a FAC in any rate year following a calendar year for which the Project Rate Stabilization Reserve ("RSR") is greater than \$+25 million, or less than \$-25 million, respectively. The RSR will be used to ensure rate stability and cost recovery and its level will be determined and any credit or surcharge for the succeeding rate year will be calculated after the prior calendar year's costs and generation levels are known. Any credit or surcharge will be applied on a uniform basis to the monthly billing statements rendered pursuant to this Service Tariff during the succeeding rate year.

The FAC is inapplicable in any rate year succeeding a calendar year at the end of which the RSR is within the \$+25 million to \$-25 million range. If at the end of any calendar year, the RSR is determined to exceed \$+25 million, such excess amount will be credited pro-rata to Customer during the succeeding rate year pursuant to the FAC. If the RSR at the end of any calendar year is determined to be less than \$-25 million, the difference below \$-25 million will be surcharged pro-rata to Customer during the succeeding rate year pursuant to the FAC.

To the extent that there is a balance in the RSR (positive or negative) on the effective date of service under the applicable agreement(s), arising out of service under a prior agreement for the sale of Project power and energy, that RSR balance shall be carried forward and maintained as the balance as of the effective date of service under such applicable agreement(s).

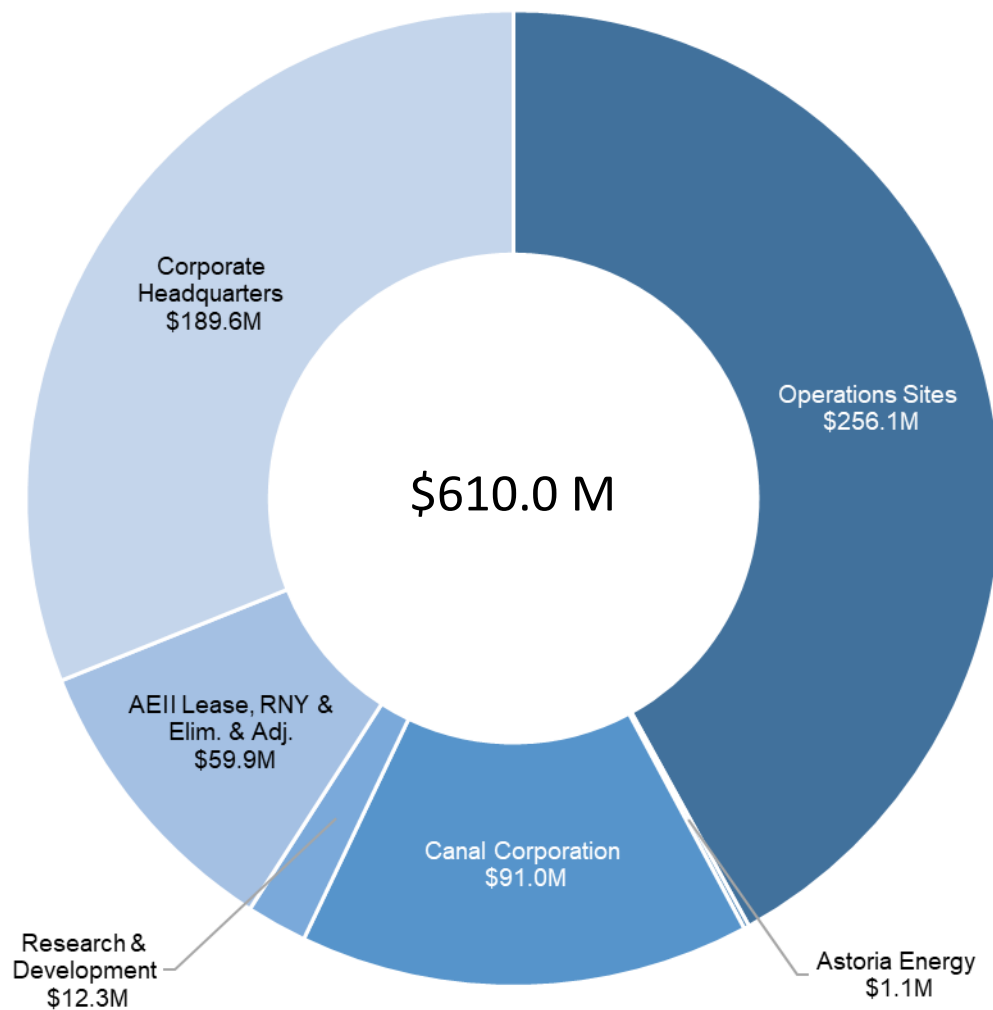


Memorandum

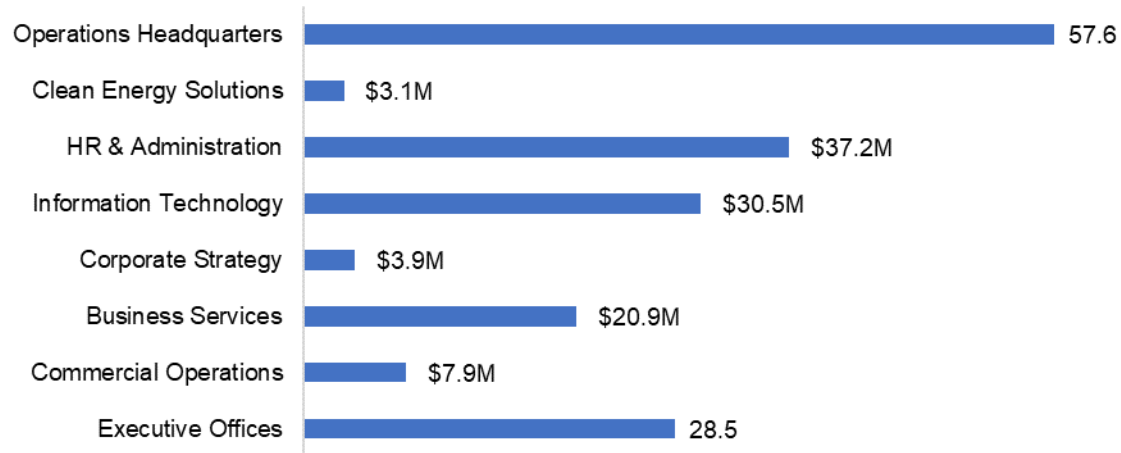
Departments	2019 Budget	2020 Request	Inc/(Dec) \$ Chg	Inc/(Dec) % Chg
Executive Offices	7,514.8	6,285.5	(1,229.3)	(16.4%)
Law	11,386.3	9,895.9	(1,490.5)	(13.1%)
Internal Audit	4,687.2	4,539.9	(147.3)	(3.1%)
Public & Regulatory Affairs	8,480.2	7,723.1	(757.2)	(8.9%)
Executive Offices	32,068.6	28,444.3	(3,624.3)	(11.3%)
EVP Commercial Operations	889.9	2,107.4	1,217.5	136.8%
Project & Business Development	2,874.1	3,042.0	168.0	5.8%
Energy Resource Management	658.0	1,002.0	344.0	52.3%
E-Mobility & Grid Flexibility	-	1,718.6	1,718.6	-
Commercial Operations	4,422.0	7,870.0	3,448.0	78.0%
EVP & CFO Business Services	522.8	1,081.2	558.3	106.8%
Budgets & Business Controls	3,063.6	2,893.8	(169.8)	(5.5%)
Controller	5,193.6	6,041.7	848.1	16.3%
Financial Operations	1,037.5	387.6	(649.9)	(62.6%)
Finance	1,450.7	1,114.5	(336.2)	(23.2%)
Treasury	1,745.7	2,019.7	274.0	15.7%
Risk Management	8,963.3	7,384.6	(1,578.7)	(17.6%)
Business Services	21,977.2	20,923.1	(1,054.2)	(4.8%)
SVP Corporate Strategy	-	2,183.6	2,183.6	-
Strategic Management	1,602.5	43.8	(1,558.7)	(97.3%)
Organizational Performance	-	1,702.6	1,702.6	-
Corporate Strategy	1,602.5	3,929.9	2,327.4	145.2%
Information Technology	33,381.7	30,539.0	(2,842.7)	(8.5%)
EVP HR & Administration	1,045.2	806.1	(239.2)	(22.9%)
VP Enterprise Shared Services	498.7	479.5	(19.1)	(3.8%)
Corporate Communications	5,329.8	5,590.8	261.0	4.9%
Human Resources	10,854.3	11,280.0	425.7	3.9%
Strategic Supply Management	5,690.6	7,548.8	1,858.2	32.7%
Digital Warehouse	1,881.2	1,597.4	(283.9)	(15.1%)
Process Excellence	3,315.5	2,247.0	(1,068.4)	(32.2%)
Knowledge Management	1,903.1	1,639.9	(263.3)	(13.8%)
Vehicle Support Services Group	-	469.9	469.9	-
WPO Support Services	-	2,767.7	2,767.7	-
Real Estate	426.5	1,575.1	1,148.5	269.3%
Civil Rights & Inclusion	476.9	599.1	122.2	25.6%
HR & Administration	32,122.7	37,245.9	5,123.3	15.9%
Contracts & Program Operations	-	528.2	528.2	-

Market Services & Business Controls	525.0	912.0	387.0	73.7%
NY Energy Manager	-	-	-	-
Business Development	323.2	485.1	161.9	50.1%
SVP CES	-	-	-	-
Engineering & Construction Management	-	1,200.0	1,200.0	-
<i>Clean Energy Solutions</i>	<i>848.2</i>	<i>3,125.3</i>	<i>2,277.1</i>	<i>268.5%</i>
Departments	2019 Budget	2020 Request	Inc/(Dec) \$ Chg	Inc/(Dec) % Chg
Operations Headquarters	57,321.1	57,517.7	196.6	0.3%
Blenheim-Gilboa	22,553.1	21,673.3	(879.8)	(3.9%)
500 MW	30,418.8	31,589.2	1,170.3	3.8%
Flynn	8,328.9	11,038.1	2,709.2	32.5%
SENY	5,054.6	4,290.0	(764.6)	(15.1%)
SCPP	21,242.5	21,945.6	703.1	3.3%
Niagara	61,761.8	62,866.1	1,104.3	1.8%
St. Lawrence	36,504.2	31,901.2	(4,603.0)	(12.6%)
Small Hydros	5,687.8	6,483.4	795.5	14.0%
Transmission Lines	56,013.9	64,292.5	8,278.7	14.8%
Astoria Energy II O&M	1,005.8	1,063.1	57.3	5.7%
<i>Operations</i>	<i>305,892.4</i>	<i>314,660.1</i>	<i>8,767.7</i>	<i>2.9%</i>
Astoria II Energy Lease	22,692.0	21,990.0	(702.0)	(3.1%)
Recharge New York	2,265.5	2,268.6	3.1	0.1%
Research & Development	8,696.2	12,284.4	3,588.2	41.3%
Eliminations & Adjustments	41,535.1	35,743.4	(5,791.7)	(13.9%)
<i>Total NYPA</i>	<i>507,504.2</i>	<i>519,024.0</i>	<i>11,519.8</i>	<i>2.3%</i>
Canal Headquarters	21,788.1	22,575.1	787.1	3.6%
Canal Eastern Division	22,752.8	28,736.2	5,983.4	26.3%
Canal Western Division	28,091.3	27,651.4	(440.0)	(1.6%)
NYPA Direct Charge to Canals	7,931.7	5,408.2	(2,523.4)	(31.8%)
NYPA Direct Assess to Canals	5,646.6	6,656.1	1,009.5	17.9%
<i>Total Canal Corporation</i>	<i>86,210.5</i>	<i>91,027.1</i>	<i>4,816.6</i>	<i>5.6%</i>
Grand Total	593,714.7	610,051.1	16,336.4	2.8%

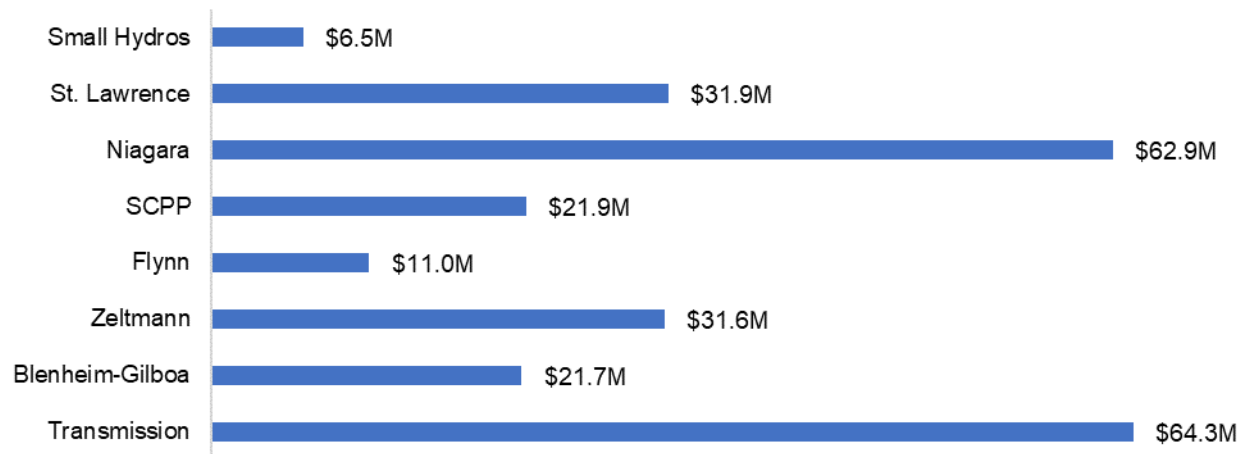
NYPA & Canal Corporation O&M by Facility



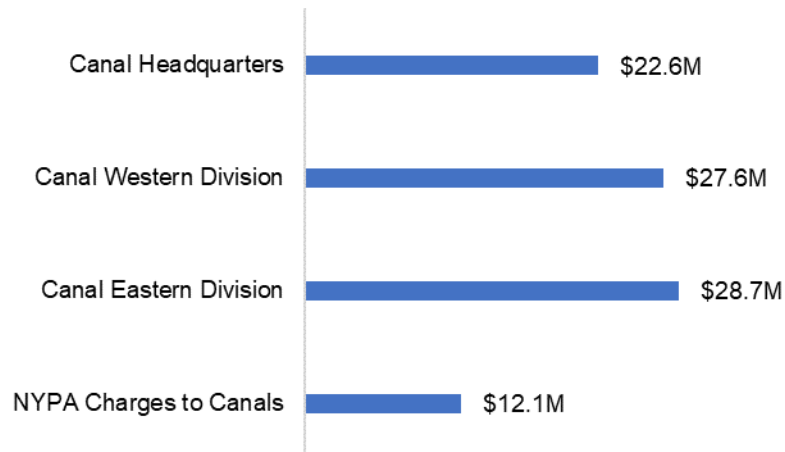
Corporate Headquarters \$189.6 M



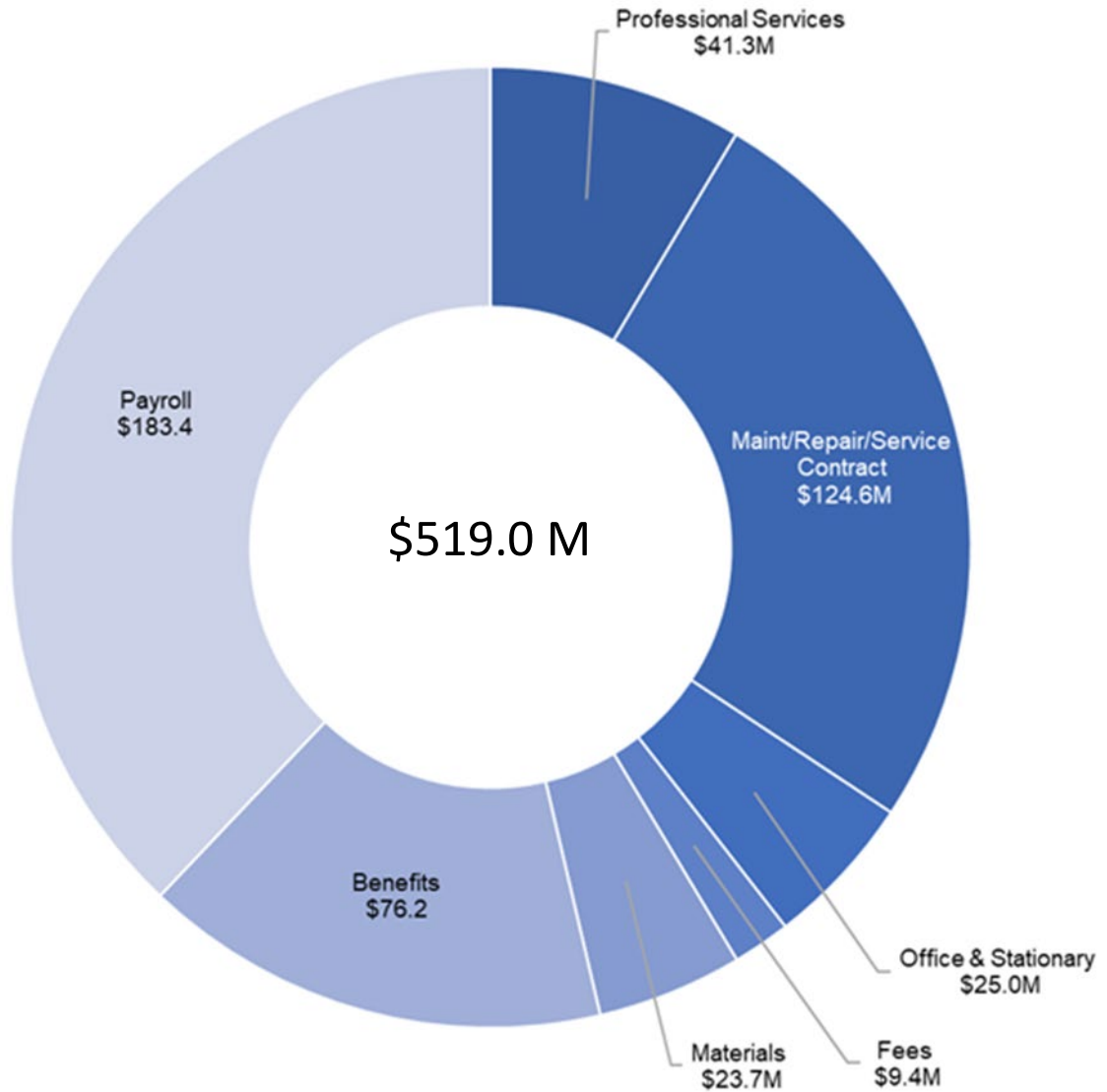
Operations Sites \$256.1 M



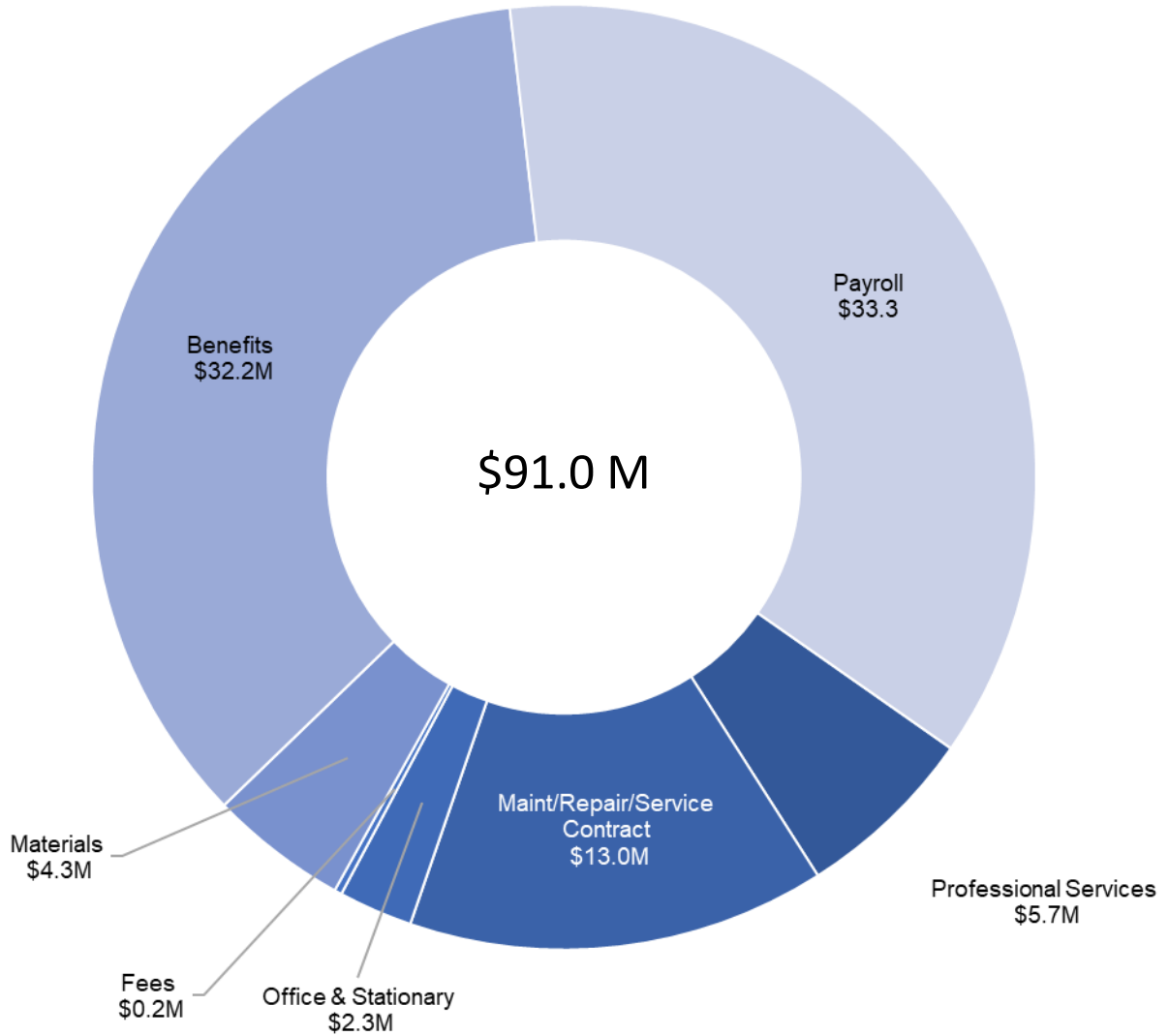
Canal Corporation \$91.0 M

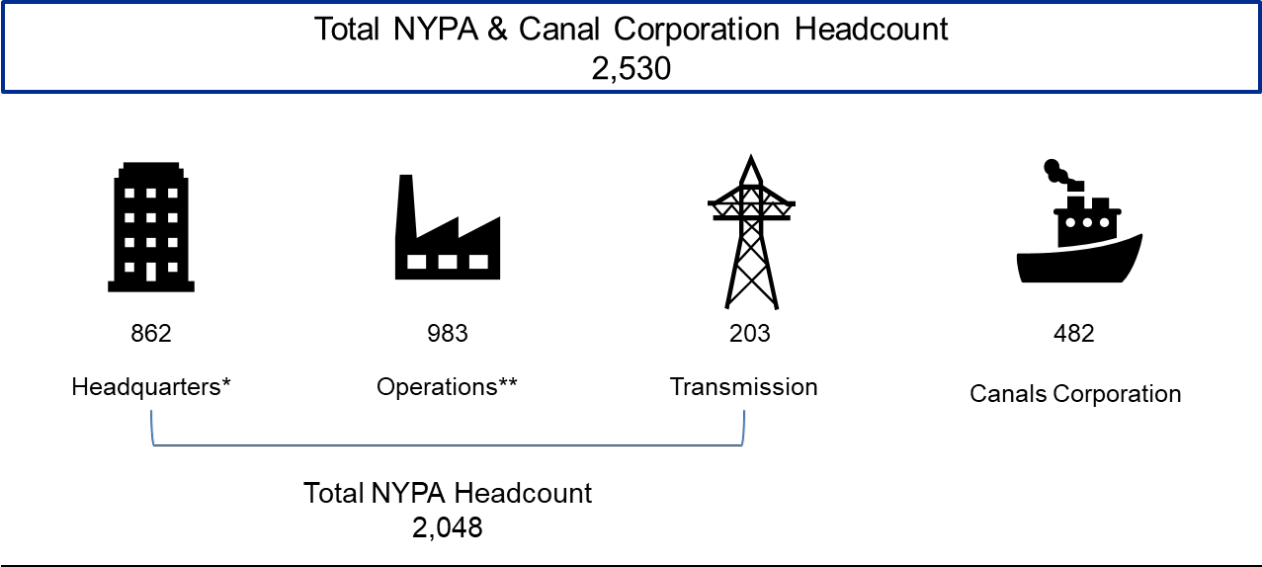


NYPA O&M by Cost Element



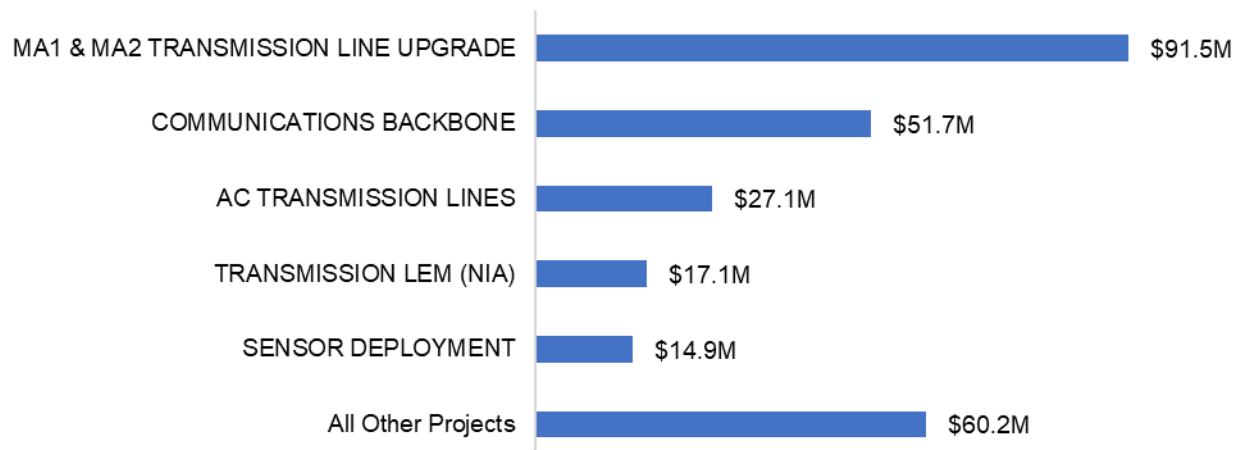
Canal Corporation by Cost Element



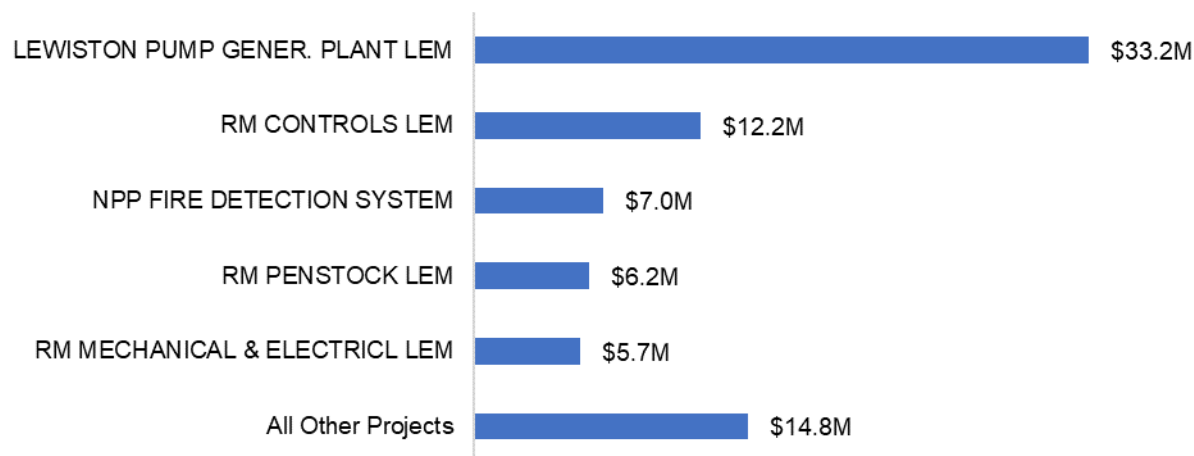


Headquarters* is inclusive Headquarters Headcount of 862 and Research & Development Headcount of 5
Operations** is inclusive Operations Headcount of 974 and Research & Development Headcount of 9

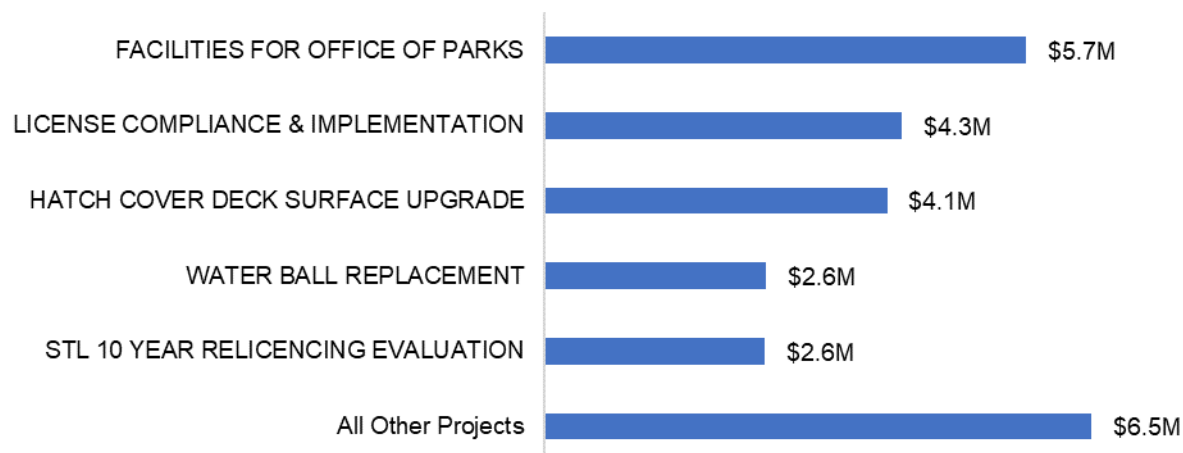
Transmission Capital Projects \$262.6M



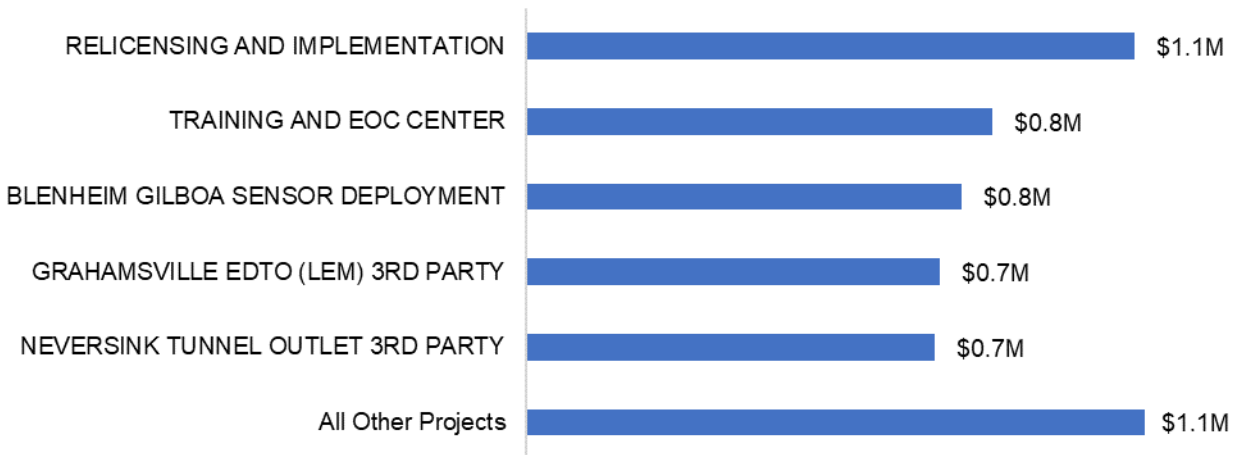
Niagara Capital Projects \$79.1M



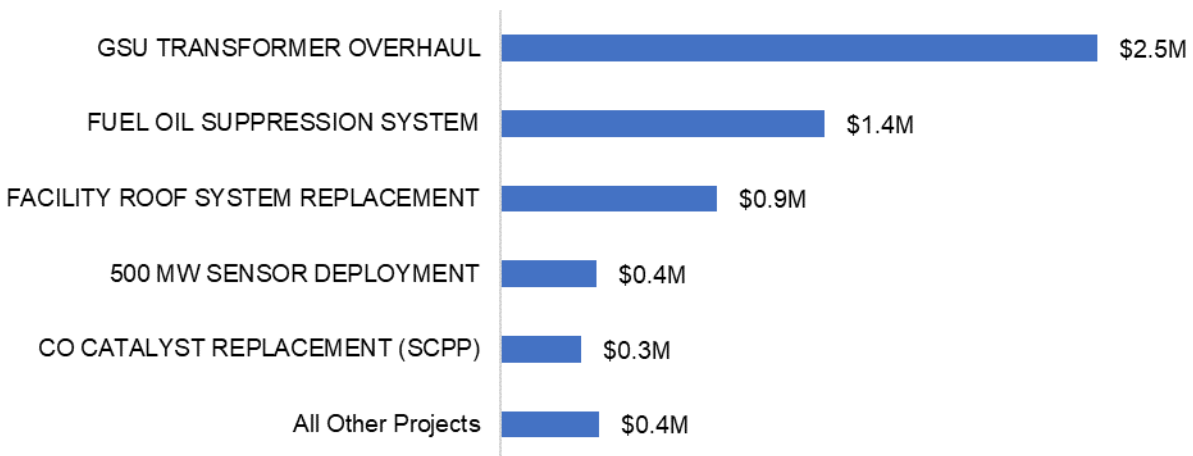
St. Lawrence Capital Projects \$25.9M



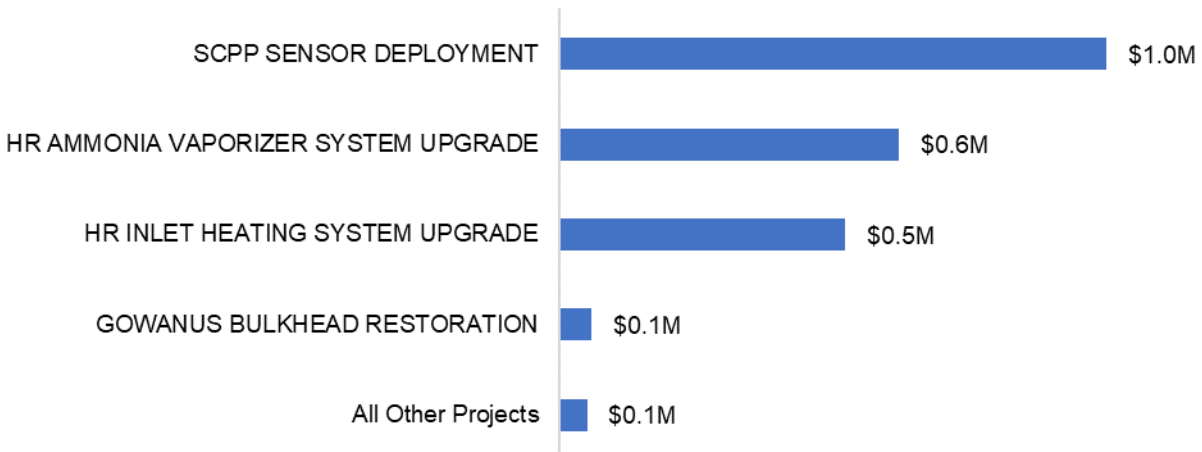
Blenheim Gilboa Capital Projects \$5.2M



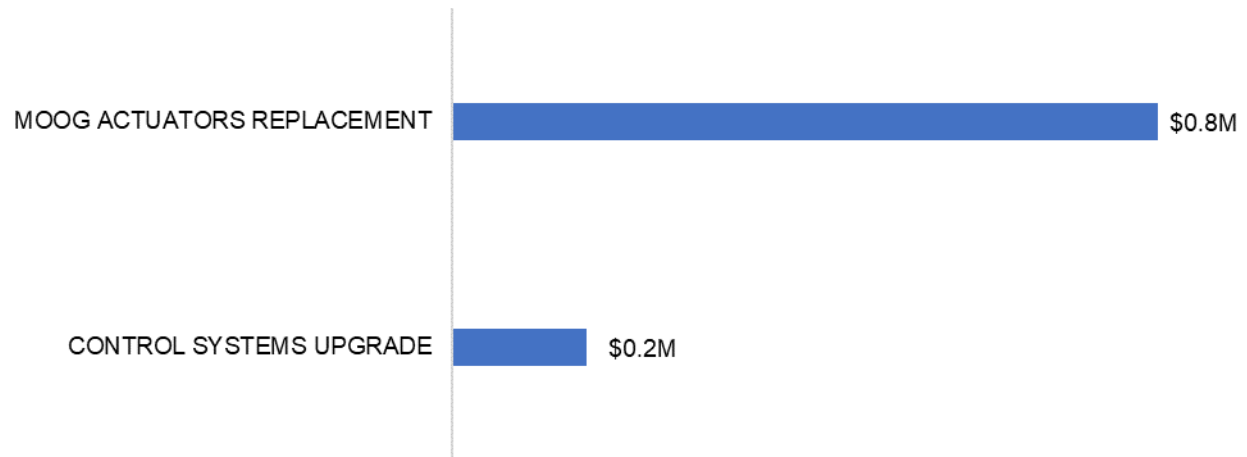
Zeltmann Capital Projects \$5.9M



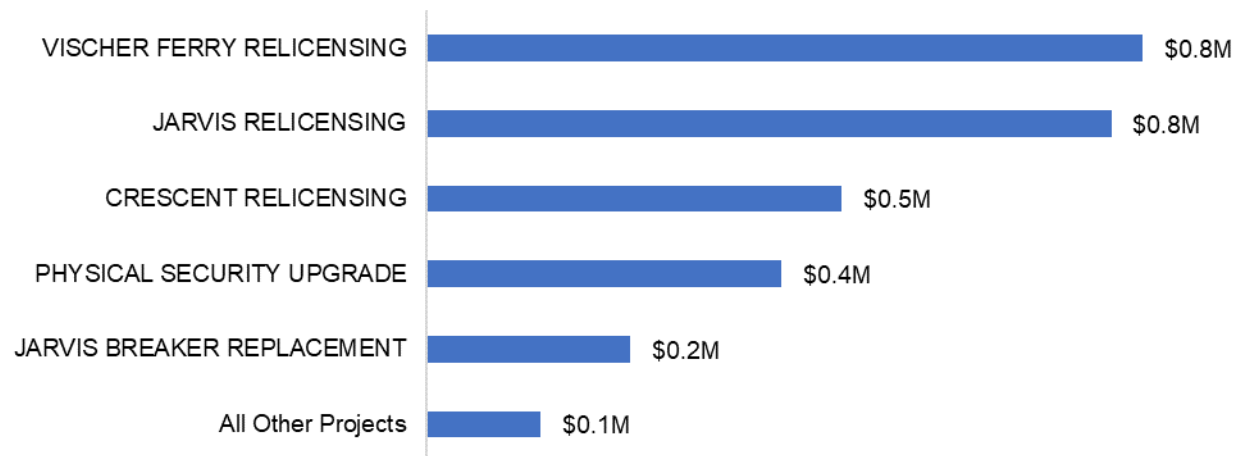
SCPP Capital Projects \$2.3M



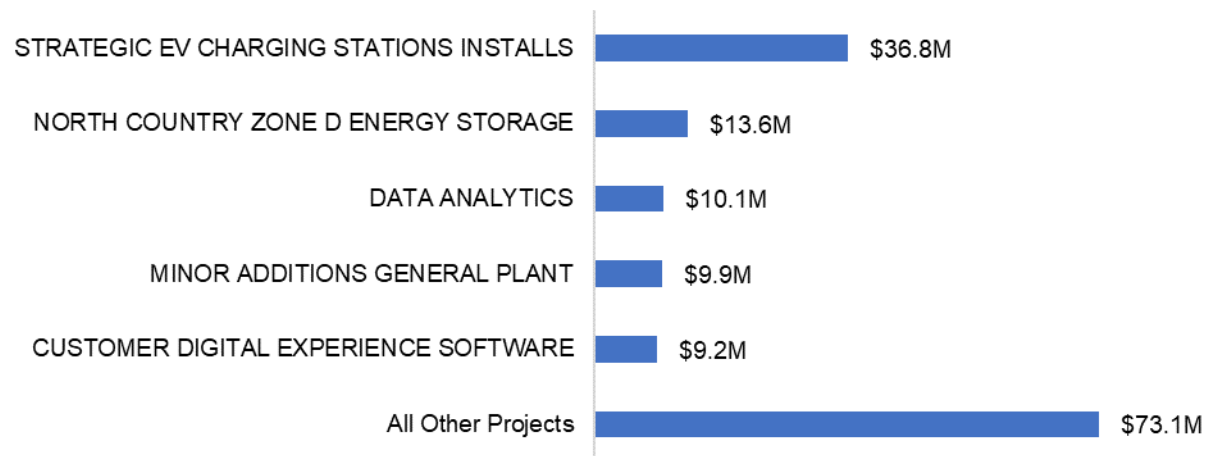
Flynn Capital Projects \$1.0M



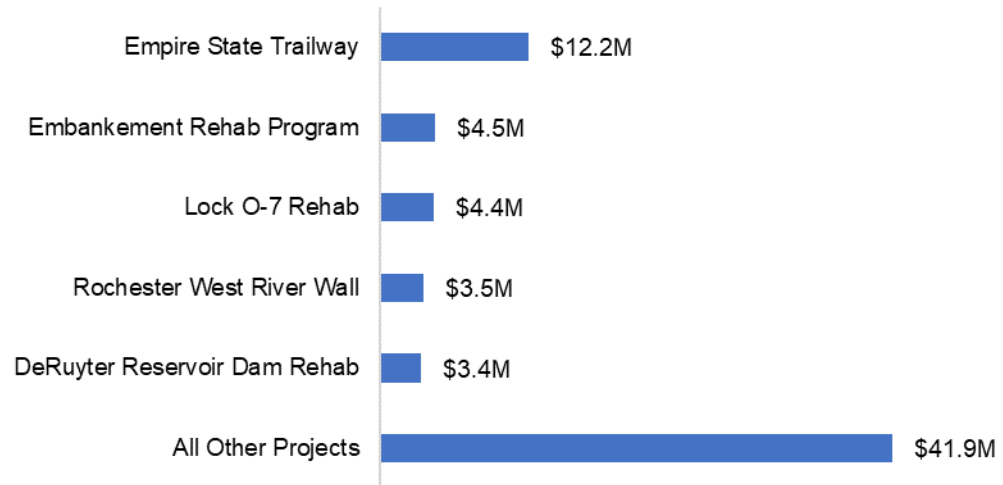
Small Hydro Capital Projects \$2.8M



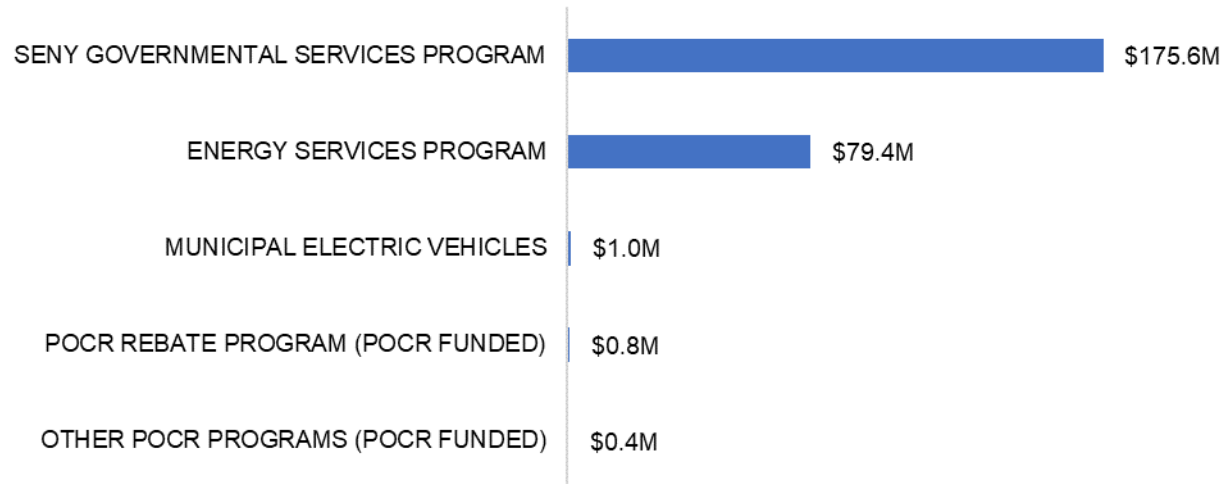
Headquarters Capital Projects \$152.5M



Canal Corporation Capital Projects \$69.9M



Energy Services Capital Projects \$257.2M



2020 – 2023

Approved Budget and Financial Plan

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In compliance with 2 NYCRR Part 203



**NY Power
Authority**

Background and Mission of the Power Authority of the State of New York

The mission of the Power Authority of the State of New York ("NYPA" or 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 Authority's financial performance goal is to maintain a strong financial position in order to have the resources necessary to achieve its mission.

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 located throughout New York State, investor-owned utilities, high load factor industrial customers, commercial/industrial and not-for-profit businesses, and various public corporations located in Southeastern New York within the metropolitan area of New York City ("SENY governmental customers"), certain neighboring states, public entities and Community Choice Aggregation Communities throughout New York State.

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 765-kV and 345-kV transmission facilities. The Authority's five major generating facilities consist of two large hydroelectric facilities ("Niagara" and "St. Lawrence-FDR"), a large pumped-storage hydroelectric facility ("Blenheim-Gilboa"), the Eugene W. Zeltmann Power Project combined cycle electric generating plant located in Queens, New York ("Zeltmann") and the Richard M. Flynn combined cycle plant located on Long Island ("Flynn").

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

To maintain its position as a low cost provider of power in a changing environment, the Authority has undertaken and continues to carry out a multifaceted program, including: (a) the upgrade and relicensing of the Niagara, St. Lawrence-FDR and Blenheim-Gilboa projects; (b) long-term supplemental electricity supply agreements with the SENY governmental customers; (c) construction and operation of the Zeltmann combined-cycle electric generating plant located at the Authority's Poletti plant site; (d) a long-term electricity supply contract with Astoria Generating LLC for the purchase of the output of a 550-MW power plant in Astoria, Queens ("Astoria Energy II"); (e) a firm transmission capacity purchase agreement with Hudson Transmission Partners, LLC ("HTP") for a portion of the output of the 660 MW, seven mile, underground and underwater transmission line connecting into the PJM ISO; (f) refinancing outstanding callable bonds to lower the overall cost of debt; and (g) implementation of an enterprise-wide and energy/fuel risk management program.

The Authority owns and operates the Robert Moses Niagara Power Plant (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 13 units at RMPP, digitization of controls and providing for security and reliability of the RMNPP and its integrated infrastructure.

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; and (c) the "K-Solar" program to reduce schools' energy costs through the use of solar power. From January 2013 through September 2019, NYPA has provided approximately \$619.3 million in financing for energy efficiency projects covered by Executive Order 88. Overall financing from January 2013 through September 2019 for energy efficiency projects for all customers (including EO88 facilities) amounts to \$1.45 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, audits, retro-commissioning, energy master plans, high

efficiency lighting technology, high efficiency heating, ventilating and air conditioning systems and controls, boiler and chiller upgrades, steam traps, thermal storage, building envelope upgrades, combined heat and power, microgrids, solar photovoltaics, fuel cells, water/waste water systems, replacement of inefficient refrigerators, distributed generation technologies and emerging energy and utility technologies. The Authority has authorized, as of September 2019, the expenditure of an aggregate of \$5.1 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) 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.

(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 2020-2023 Approved Budget and Financial Plan (“Approved Four-Year Plan”) relies on data and projections developed through the following timeframe:

- During July – November 2019, developed 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; generation levels at NYPA power projects reflecting scheduled outages; and purchased energy & power requirements and sources.
- During July – November 2019, developed preliminary operations and maintenance, and capital expense targets.
- November 2019, posted Proposed Four-Year Plan for public inspection at five convenient locations and on NYPA’s internet website.
- During October – November 2019, updated and finalized all forecasts and cost estimates.
- During November – December 2019, integrated above data to produce the 2020-2023 Final Budget and Financial Plan.
- Seek authorization of NYPA’s Trustees to approve the 2020-2023 Final Budget and Financial Plan at their meeting currently scheduled for December 11, 2019.
- Submit the approved 2020-2023 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.

NYPA's Four-Year Projected Income Statements
(In \$ Millions)

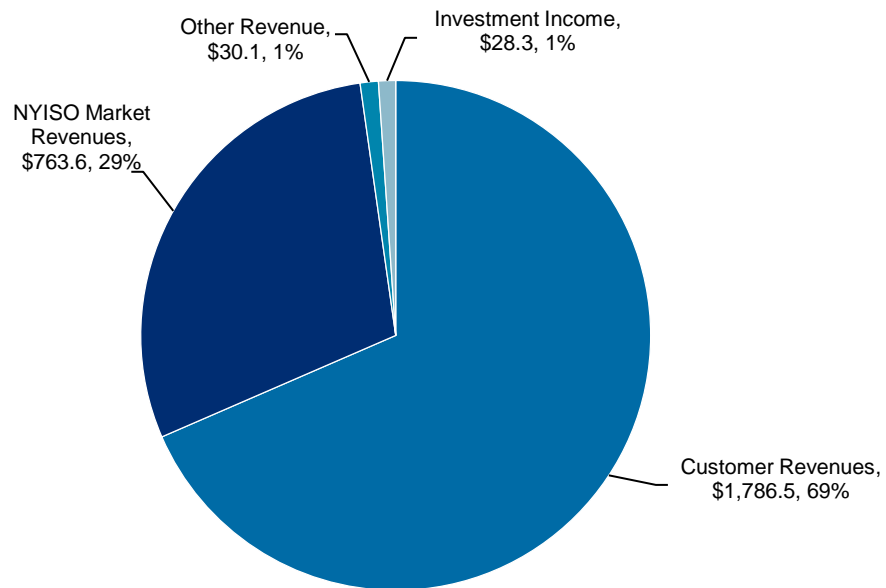
NYPA	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Operating Revenue				
Customer Revenue	\$1,786.5	\$1,835.2	\$1,840.4	\$1,902.4
Market-Based Power Sales	524.5	543.7	522.1	553.8
Ancillary Service Revenue	45.4	47.8	49.5	53.4
NTAC and Other	193.7	211.4	237.2	243.4
Non-Utility Revenue	<u>27.6</u>	<u>34.9</u>	<u>37.6</u>	<u>40.2</u>
Operating Revenue Total	2,577.7	2,673.0	2,686.8	2,793.2
Operating Expense				
Purchase Power	(612.4)	(632.7)	(622.4)	(672.1)
Ancillary Service Expense	(58.3)	(58.2)	(58.5)	(58.4)
Fuel Consumed	(158.7)	(163.7)	(166.4)	(183.1)
Wheeling	(644.1)	(646.4)	(647.5)	(648.4)
Operations & Maintenance	(496.9)	(501.0)	(520.4)	(541.0)
Other Expense	<u>(119.6)</u>	<u>(141.4)</u>	<u>(129.6)</u>	<u>(129.7)</u>
Operating Expense Total	(2,090.0)	(2,143.4)	(2,144.8)	(2,232.7)
EBIDA	487.7	529.6	542.0	560.5
Compounded Annual Growth Rate (CAGR)		8.6%	5.4%	4.8%
Non-Operating Income & Expenses				
Depreciation & Amortization	(234.1)	(246.6)	(250.1)	(259.5)
Investment and Other Income	28.7	27.8	28.0	30.4
Mark to Market Adjustments	(0.4)	0.1	0.0	0.0
Interest & Other Expenses	<u>(120.9)</u>	<u>(120.5)</u>	<u>(122.9)</u>	<u>(119.7)</u>
Non-Operating Income & Expenses Total	(326.7)	(339.2)	(345.0)	(348.8)
NYPA NET INCOME	\$161.0	\$190.4	\$197.0	\$211.7
CANALS				
Operating Revenue	\$2.5	\$2.5	\$2.5	\$2.5
Operating Expense	(93.6)	(93.6)	(93.6)	(93.6)
EBIDA	(91.1)	(91.1)	(91.1)	(91.1)
Non-Operating Income & Expenses	(28.4)	(28.8)	(26.6)	(26.3)
CANALS NET INCOME	(119.5)	(119.9)	(117.7)	(117.4)
TOTAL NET INCOME (NYPA & CANALS)	\$41.5	\$70.5	\$79.3	\$94.3

NYPA Gross Margin Analysis
(In \$ Millions)

	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Merchant Margin	\$335.4	\$363.0	\$328.0	\$347.2
Customer Margin	551.6	574.9	591.1	590.9
Transmission Margin	171.2	199.4	234.1	252.2
Other Margin	46.0	34.7	38.8	40.9
TOTAL MARGIN	1,104.2	1,172.0	1,192.0	1,231.2
Operations & Maintenance	(496.9)	(501.0)	(520.4)	(541.0)
Other Expenses	(119.6)	(141.4)	(129.6)	(129.7)
EBIDA	\$487.7	\$529.6	\$542.0	\$560.5

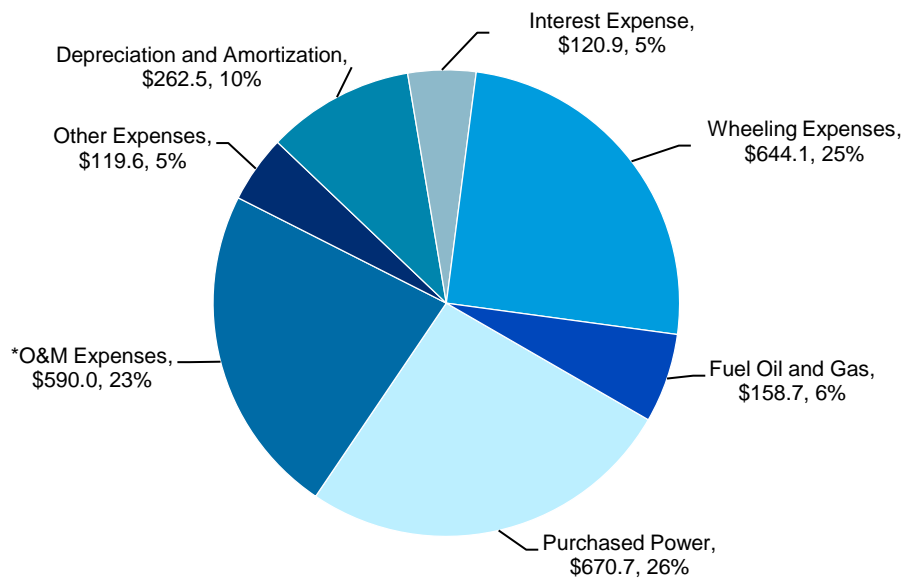
2020 Budget – Sources

(In \$ Millions)



2020 Budget – Uses

(In \$ Millions)



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

NYPA's STATEMENTS OF CASH FLOWS

(In \$ Millions)

	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
<u>Revenue Receipts:</u>						
Sale of Power, Use of Transmission Lines,						
Wheeling Charges and other receipts	\$2,670.5	\$2,398.8	\$2,561.3	\$2,663.7	\$2,685.3	\$2,800.2
Earnings on Investments and Time Deposits	<u>19.2</u>	<u>28.9</u>	<u>28.7</u>	<u>27.8</u>	<u>28.0</u>	<u>30.4</u>
Total Revenues	2,689.7	2,427.7	2,590.0	2,691.5	2,713.3	2,830.6
<u>Expenses:</u>						
Operation and Maintenance, including Transmission						
of Electricity by others, Purchased Power and						
Fuel Purchases	(2,464.1)	(2,182.7)	(2,291.3)	(2,348.7)	(2,351.6)	(2,442.7)
<u>Debt Service:</u>						
Interest on Bonds and Notes	(53.5)	(48.0)	(49.5)	(54.2)	(62.0)	(64.3)
Bonds and Notes Retired	<u>(61.7)</u>	<u>(64.1)</u>	<u>(186.7)</u>	<u>(16.5)</u>	<u>(42.9)</u>	<u>(28.0)</u>
Total Debt Service	(115.2)	(112.1)	(236.2)	(70.7)	(104.9)	(92.3)
Total Requirements	(2,579.3)	(2,294.8)	(2,527.5)	(2,419.4)	(2,456.5)	(2,535.0)
Net Operations	110.4	132.9	62.5	272.1	256.8	295.6
<u>Capital Receipts:</u>						
Sale of Bonds, Promissory Notes & Commercial Paper	102.8	205.7	505.3	248.2	196.5	137.9
Less : Repayments	(62.3)	0.0	(204.0)	(98.0)	0.0	0.0
Earnings on Construction Funds	0.0	0.0	0.0	0.0	0.0	0.0
DSM Recovery Receipts	106.6	169.8	325.8	192.5	281.8	413.7
Temporary Asset Transfer Return from NYS	43.0	48.5	43.0	43.0	43.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0
Total Capital Receipts	190.1	424.0	670.1	385.7	521.3	551.6
<u>Capital Additions & Refunds:</u>						
Additions to Electric Plant in Service and						
Construction Work in Progress, and Other costs	(460.3)	(772.2)	(864.4)	(996.3)	(880.5)	(713.4)
Construction Funds - Net Transfer	0.0	0.0	0.0	0.0	0.0	0.0
Total Capital Additions & Refunds	(460.3)	(772.2)	(864.4)	(996.3)	(880.5)	(713.4)
Net Capital	(270.2)	(348.2)	(194.3)	(610.6)	(359.2)	(161.8)
Net Increase/(Decrease)	<u>(\$159.8)</u>	<u>(\$215.3)</u>	<u>(\$131.8)</u>	<u>(\$338.5)</u>	<u>(\$102.4)</u>	<u>\$133.8</u>

(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 New York Independent System Operator ("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 while the capacity revenues are estimated using the NYISO demand curve methodology.

Customer and Project Revenue

The customers served by the Authority and the rates paid by such customers vary with the NYPA Power Programs designated to serve such loads. These 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 Approved Four-Year Plan models Trustee-approved rate changes for customers as well as prospective rate changes.

Niagara's expansion and replacement power industrial customers and St. Lawrence-FDR's industrial customers are allocated over 35% of the firm contract demand 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 \$100 million for the first three years following withdrawal of the hydropower from the rural and domestic customers, then \$70 million for the fourth year, \$50 million for the fifth year, and \$30 million each year thereafter, 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 \$564 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 \$72 million from August 2011 through June 30, 2019.

In March 2019, the Trustees were requested to approve 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 245 MW, has been executed effective October 1, 2015 through March 31, 2019, 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 existing 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 power sale agreement; a Monthly 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 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 \$210 million, of which approximately \$199.4 million has already been spent as of June 30, 2019. 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 Approved 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 Approved Four-Year Plan.

SENY Governmental Customers

Various municipalities, school districts and public agencies in New York City and Westchester County are served by the Authority's combined cycle Zeltmann plant, the four small hydroelectric plants, the contracted output of the Astoria Energy II plant, and capacity and energy purchased by the Authority in the NYISO markets. Sales into the NYISO of energy generated by these resources, grandfathered transmission rights, and historic fixed priced transmission rights offset the cost of the energy purchased.

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. Each of 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, will be passed through to each customer by an energy charge adjustment.

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 a supplemental electricity supply agreement with all 103 Westchester Governmental Customers. Among other things, under the agreement, an energy charge adjustment mechanism is applicable, and customers are allowed to 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.

Blenheim-Gilboa Customers

The Blenheim-Gilboa project currently operates as a merchant plant, with capacity and energy output sold into the NYISO market. Prior to 2018 and signing of the new LTAs, the NYC governmental customers received a 250 MW allocation of firm capacity and associated energy revenues. The plant's capacity can be used to meet the requirements of some of the Authority's other business and governmental customers and/or sold in the NYISO market. 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 Approved 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 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 operate 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, 2019, the Transmission Revenue Requirement is \$237.7 million, including the revenue requirement for the Marcy South Series Compensation project. 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 replacement project covers 78 miles of 230 kV 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 operate at its current 230 kV level, but the conductors and insulators will accommodate future 345 kV 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 September 21, 2018, the Public Service Commission determined that the Authority's April 2018 Article VII application was complete. Currently, the Authority is negotiating Article VII

Certificate Conditions, Joint Proposal of Settlement, the Environmental Management and Construction Plan, Army Corps of Engineer approvals, and exhibits and appendices with regulatory agencies. The Authority estimates a project cost of \$484 million through project completion. Construction is expected to begin in 2020 and be completed in 2023. This Approved Four-Year Plan includes revenues and costs associated with the Moses Adirondack project.

On August 1, 2014, the Public Policy Transmission Planning Process administered by the NYISO invited solicitations to address the AC Transmission Public Policy Need ("AC Proceeding") 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) to increase transfer capability from central to eastern New York.

The NYISO estimated the total cost of the Segment A project to be about \$750 million (in 2018 dollars, including 30 percent contingency). In August 2019, LS Power and the Authority submitted an Article VII application to the PSC and the Authority filed an incentive to FERC under Order 679. If the PSC authorizes the project, construction of the project would begin, which is targeted for late 2020. 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.

In May 2019, the Authority's Trustees approved capital expenditures of approximately \$28 million for the Segment A project. In consideration of maintaining the purchase option under the Participation Agreement, the Authority will fund 33% of the Segment A project development costs until such time as the Authority decides to exercise its 37.5% purchase option.

The Authority is in continuing discussions with LS Power and the NYISO with respect to the development of the project. The Authority expects its costs with respect to the development of the Segment A project will be recovered through FERC's cost-recovery mechanisms. The projects proposed by NYPA and LS Power include the construction of over 300 miles of new 345kV and 115kV transmission lines and four new substations. These projects will be presented to the NYISO Board of Directors for approval and are recommended to be placed in service by 2023. Given that approvals are required before the proposals may proceed, this Approved Four-Year Plan include revenues and costs associated with the AC Proceeding projects.

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.

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. In August 2019, the Authority estimated that its under-recovery of costs for the Line could be in the range of approximately \$90 million to \$95 million per year over the next four years. The under-recovery estimates were based on projections of the capacity payment obligations, the costs of interconnection and transmission upgrades, and energy revenues.

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, is being challenged at FERC in numerous

proceedings by Con Edison, the Authority, HTP and other parties on the grounds that PJM has disproportionately allocated the costs of those projects to those parties. In a separate FERC proceeding, 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. RTEP costs relating to the BLC project would be paid over a number of years after construction commenced in 2017. Construction of the BLC project was completed in 2018.

From June 2013 through June 2019, the Authority has paid approximately \$97 million in RTEP charges for the Line, including the BLC project and pre-2013 RTEP project allocations arising from a contested settlement that FERC approved in May 2018 over the objections of the Authority and HTP.

In July 2017, the Authority, together with HTP, sought 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. In the resulting FERC order dated December 15, 2017, FERC determined that HTP may relinquish its firm rights effective immediately. 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 issued its March 5, 2018 order endorsing PJM's new cost allocation. Both the December 15, 2017 and the March 5, 2018 FERC orders are pending rehearing. On July 19, 2018, FERC established procedures to allow parties to resolve by settlement the continuing disputes in these and several other ongoing RTEP proceedings that relate to the BLC project costs. Settlement efforts commenced in August 2018. In July 2019, the FERC settlement judge declared an impasse in the settlement proceedings and the FERC chief judge terminated settlement proceedings for disposition of the ongoing RTEP proceedings by FERC. On August 30, 2019, FERC directed PJM to establish an allocation of historical RTEP charges that will impact NYPA to some degree, but the precise allocations will be known later in 2019. Such charges are for facilities related to transmission needs driven solely by the individual PJM transmission owners' local planning criteria. In 2018, the D.C. Circuit Court of Appeals reversed PJM's prior tariff provision that allocated 100% of such transmission costs to the transmission zone of the PJM transmission owner whose local planning criteria underlie the project. As a result, some RTEP charges for the period May 25, 2015 through December 31, 2017, may be reallocated to NYPA.

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 FERC orders from December 15, 2017 and March 5, 2018 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.

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 Approved 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 Approved 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.

2020 Strategic Initiatives

As part of our Vision 2020 Strategic Plan, the Authority is pursuing six strategic initiatives, which are in varying stages of implementation. These initiatives include, but are not limited to:

- Customer Solutions – to develop innovative, cost-effective and resilient energy solutions that enable customers to achieve their energy goals in new ways.
- Asset Management – to strengthen investment planning through enhanced use of technology, data, people and processes.
- Smart Generation and Transmission – to deploy advanced technologies that ensure that grid operations become increasingly intelligent.
- Workforce Planning – to identify and acquire the skills that NYPA will need to succeed, through internal training, succession planning, employee retention and external recruiting.
- Knowledge Management – to promote enhanced sharing of information and knowledge as part of day-to-day operations.
- Process Excellence – to enhance processes in order to optimize resources and costs, manage risk, and reduce environmental impact.

In 2018, at the direction of the Trustees, NYPA initiated two new key strategic activities – the aim being to identify strategic investment opportunities and build compelling business cases to:

- Multiply the impact and/or shorten the implementation time of our existing six strategic initiatives;
- Support the achievement of the State's clean energy goals, with a focus on:
 - Building out statewide electric vehicle charging infrastructure: 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 majority of this spend will be capital. In October 2018, the Authority's Trustees awarded contracts valued at up to \$60 million to several firms that will provide electric vehicle supply equipment, of which \$40 million would be used to support the electric vehicle acceleration initiative.
 - Driving down the cost of Offshore Wind.
 - Building the necessary flexibility in our electricity grid in order to ensure as many low cost, clean, reliable electrons are being consumed when and where they are needed.

This Approved Four-Year Plan reflects costs and revenues with respect to these initiatives.

Vision 2030: NYPA's updated strategic plan

Building on the successful implementation of the 2020 Strategic Plan, NYPA is currently in the process of updating the Authority's guiding strategy through Vision 2030. This plan will center on helping achieve the greenhouse gas reduction targets in New York State's recently passed Climate Leadership and Community Protection Act (CLCPA), the most ambitious climate change legislation in the country. NYPA's Vision 2030 will be brought to the NYPA Trustees for approval in 2020 and aims to position NYPA and our customers to lead the transition to New York's clean energy future.

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 2020-2023 includes Canal-related operating expenditures of approximately \$85 million per year and capital expenditures of approximately \$40 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.

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 are restricted 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.

Operations and Maintenance Expenses

NYPA's O&M plan for 2020-2023 is as follows:

Operations and Maintenance Forecast (In \$ Millions)				
	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Payroll	\$253.4	\$259.9	\$266.5	\$273.3
Benefits	126.2	128.9	131.7	134.5
Materials/Supplies	28.0	28.7	29.5	30.2
Fees	9.7	9.9	10.2	10.5
Office & Station	27.4	28.2	29.0	29.8
Maintenance Repair & Service Contracts	139.5	139.8	141.4	141.3
Consultants	47.5	48.8	50.0	51.3
Charges to:				
Outside Agencies	(1.7)	(1.8)	(1.8)	(1.8)
Capital Programs	<u>(51.7)</u>	<u>(53.0)</u>	<u>(54.4)</u>	<u>(55.7)</u>
Total Charges	(53.4)	(54.8)	(56.2)	(57.5)
Research & Development	12.3	12.7	13.0	13.4
Subtotal	590.6	602.1	615.1	627.0
Astoria Energy II	22.0	22.6	23.2	23.8
TOTAL NYPA O&M	\$612.6	\$624.7	\$638.3	\$650.8

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 at December 31, 2018 expressed as a percentage of average depreciable capital assets was 2.5%.

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.

Regulatory Risks

On August 1, 2016, the New York Public Service Commission ("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 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, 2019 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. A similar assumption has been made for the remainder of 2019 through 2023. As of October 2018, the Authority estimates that it will incur ZEC purchase costs associated with participation in the ZEC program of approximately \$248 million in aggregate over the 2020-2023 period, of which approximately \$21.7 million is not expected to be recovered under customer contracts.

The Regional Greenhouse Gas Initiative (the "RGGI") 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 25MW 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 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 (“TRR”), 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 Approved Four-Year Plan assumes full recovery of eligible future costs under the provisions of the NYISO OATT.

Legislative and Political 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 2018-2019 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, 2018, the proceeds of which will be utilized to support energy-related State activities.

The 2019-2020 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, 2019, the proceeds of which will be utilized to support energy-related State activities. This Approved Four-Year Plan includes the 2019-2020 Enacted State Budget provision.

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 ("MOU") between the State, acting by and through the Director of the Budget of the State, and the Authority, the Authority agreed to transfer \$215 million associated with its Spent Nuclear Fuel Reserves by the end of State Fiscal Year 2008-2009. The Spent Nuclear Fuel Reserves are funds that had been set aside for payment to the federal government sometime in the future when the federal government accepts the spent nuclear fuel for permanent storage. The MOU provides for the return of these funds to the Authority, subject to appropriation by the State Legislature and other conditions, at the earlier of the Authority's payment obligation related to the transfer and disposal of the spent nuclear fuel or September 30, 2017. Further, the MOU provided for the Authority to transfer during State Fiscal Year 2009-2010 approximately \$103 million of funds set aside for future construction projects, which amounts would be returned to the Authority, subject to appropriation by the State Legislature and other conditions, at the earlier of when required for operating, capital or debt service obligations of the Authority or September 30, 2014.

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 Approved Four-Year Plan assumes no such assessments during the 2020-2023 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.

As more specifically described in the enactment, and subject to limitations described therein, the 2019-20 Enacted State Budget amended the Power Authority Act to authorize the Authority, subject to feasible and advisable determinations by the Authority's Trustees, 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, either alone or jointly with one or more other entities, transmission facilities for the purpose of transmitting power and energy generated by renewable wind energy generation projects that are located in State territorial waters, and/or in waters under the jurisdiction or regulation of the U.S.; (3) supply certain market power and energy and renewable energy products to any Authority customer, public entity, or community choice aggregation ("CCA") community in the State (collectively, "Eligible Entities"); and (4) alone or jointly with one or more other entities, finance the development of renewable energy generating projects that are located in the State, including its territorial waters, and/or on property or in waters under the jurisdiction or regulatory authority of the United States, purchase power, energy or related credits or attributes produced from such renewable energy generating projects, and allocate and sell such products to Eligible Entities. The Authority may exercise any of this authority at its discretion, and the changes made by the amendments do not affect the Authority's previously-existing statutory authority.

Hydroelectric 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 about 20.2 terawatt-hours ("TWH") annually. The Authority's hydroelectric generation forecast

is 23.6 TWH in 2020, 23.1 TWH in 2021, 22.9 TWH in 2022, and 22.6 TWH in 2023. However, these generation amounts are forecasted values, and hydrological conditions can vary considerably from year to year.

The Authority conducted high and low hydroelectric generation sensitivities for 2020-2023 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:

	Net Merchant Hydroelectric Generation	NYPA Net Income Change	Net Merchant Hydroelectric Generation	NYPA Net Income Change
	(In TWH)	(In \$ Millions)	(In TWH)	(In \$ Millions)
2020	8.4	(\$25.2)	10.1	\$23.8
2021	7.6	(\$39.7)	9.9	\$34.1
2022	7.1	(\$50.3)	10.1	\$45.4
2023	6.6	(\$50.1)	9.5	\$47.2

Electric Price and Fuel 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.

Other Business Risks

Industry Transformation

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.

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.

Physical and 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.

Catastrophic Natural Events

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.

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.

Critical Infrastructure Failure

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.

Occupational Health and Workforce 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.

Auer V. NYPA

The surviving plaintiff of a case known as Auer I, which resulted in a 1984 order issued by Judge Tenney of the New York State Supreme Court, Oswego County, brought an enforcement action seeking to enforce the 1984 order. The 1984 order related to the manner in which the Authority computes its rates for its preference power customers. By statute, those rates must be as low as possible, which essentially means the Authority must sell the power at its cost. The plaintiff contends that the Authority's rate-making methodology does not adhere to the statutory scheme nor spirit of the Auer I order and subsequent settlement. The plaintiff is seeking monetary damages of an unspecified amount. The plaintiff has also made a motion to add certain other residential customers of certain New York municipal electric systems to the action as additional plaintiffs.

The Authority successfully made a motion to transfer the venue from New York State Supreme Court in Oswego County to the same court in Albany County. The Authority has a motion pending in Albany County to dismiss the action on multiple grounds. Plaintiff then appealed the Oswego Judge's decision to transfer venue to the Appellate Division, Fourth Department. The Authority's motion to dismiss in Albany County was stayed pending the outcome of the appeal. On October 4, 2019, the Appellate Division, Fourth Department issued a decision that dismissed plaintiff's appeal of the change of venue motion and declared that the plaintiff has improperly brought this action which should have been commenced as a plenary action. The Authority intends to move forward with its motion to dismiss in Albany County.

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 to trip. As a result of the impact to the cable, dielectric fluid was released into Long Island Sound. The Authority incurred approximately \$34 million in costs arising from this incident and has recovered approximately \$18 million through insurance coverage. 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

The Authority contracted with Northline Utilities, LLC ("Northline") to install fiber optic ground wire along the Authority's transmission system. Thereafter, Northline entered into a contract with Catalyst Aviation, LLC ("Catalyst") for 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 notices of claim arising out of this incident. The Authority is pursuing coverage under Northline's insurance policies that name the Authority as an additional insured.

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.

(e) Revised Forecast of 2019 Budget
(In \$ Millions)

	Original Budget 2019	Forecast 2019	Variance Favorable/ (Unfavorable) 2019
<u>Operating Revenues:</u>			
Customer Revenues	\$1,825.2	\$1,692.7	(\$132.5)
NYISO Market Revenues	762.7	699.6	(63.1)
Other Revenue	<u>20.9</u>	<u>27.4</u>	<u>6.5</u>
Total Operating Revenues	2,608.8	2,419.7	(189.1)
<u>Operating Expenses:</u>			
Purchased Power	696.9	568.5	128.4
Fuel - Oil and Gas	189.2	144.2	45.0
Wheeling Expenses	644.1	639.2	4.9
O&M Expenses	578.0	580.4	(2.4)
Other Expenses	117.1	127.4	(10.3)
Depreciation and Amortization	<u>244.1</u>	<u>249.3</u>	<u>(5.2)</u>
Total Operating Expenses	2,469.4	2,309.0	160.4
NET OPERATING INCOME	139.4	110.7	(28.7)
<u>Other Income:</u>			
Investment Income	30.5	49.0	18.5
Other Income	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Total Other Income	30.5	49.0	18.5
<u>Non-Operating Expenses:</u>			
Interest & Other Expenses	<u>149.0</u>	<u>128.2</u>	<u>20.8</u>
Total Non-Operating Expenses	149.0	128.2	20.8
NET INCOME	\$20.9	\$31.5	\$10.6

(f) Reconciliation of 2019 Budget and 2019 Revised Forecast

The 2019 year-end net income forecast is \$31.5 million, which is \$10.6 million above budget. This positive variance is primarily a result of higher investment income and lower interest expenses due to postponement of debt issuances to future periods, offset by lower generation margins, and higher other expenses. Lower generation margins are primarily due to lower customer revenue, energy prices and upstate capacity prices, largely offset by higher hydro generation, lower purchase power and wheeling expenses, as well as the sale of natural gas into the market.

(g) Statement of 2018 Financial Performance

**New York Power Authority
Net Income – Actual vs. Budgeted
For the Year ended December 31, 2018
(In \$ Millions)**

	<u>Actual</u>	<u>Budget</u>	<u>Variance Favorable/ (Unfavorable)</u>
<u>Operating Revenues:</u>			
Customer Revenues	\$1,874.5	\$1,832.5	\$42.0
NYISO Market Revenues	793.2	843.9	(50.7)
Other Revenue	<u>20.8</u>	<u>28.3</u>	<u>(7.5)</u>
Total Operating Revenues	2,688.5	2,704.7	(16.2)
<u>Operating Expenses:</u>			
Purchased Power	704.4	703.3	(1.1)
Fuel	188.6	217.6	29.0
Wheeling	653.6	644.8	(8.8)
O&M Expenses	600.7	588.4	(12.3)
Other Expenses	103.1	111.7	8.6
Depreciation and Amortization	235.2	240.2	5.0
Allocation to Capital	(14.2)	(11.0)	3.2
Impairment Loss	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Total Operating Expenses	2,471.4	2,495.0	23.6
NET OPERATING INCOME	217.1	209.7	7.4
<u>Other Income:</u>			
Investment Income	24.2	18.5	5.7
Other income	<u>\$0.0</u>	<u>0.0</u>	<u>0.0</u>
Total Other Income	24.2	18.5	5.7
<u>Non-Operating Expenses:</u>			
Interest and Other Expenses	<u>139.7</u>	<u>151.3</u>	<u>11.6</u>
Total Non-Operating Expenses	139.7	151.3	11.6
NET INCOME	\$101.6	\$76.9	\$24.7

Net Income for the year ended December 31, 2018 was \$102 million, which was \$25 million higher than the budget of \$77 million. The increase in net income was primarily attributable to lower depreciation (\$5 million) due to less than planned capital spending, favorable mark to market gain on the Authority's investment portfolio (\$4 million), and lower interest expense (\$12 million) due to postponement of debt issuances to future periods.

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

	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
	<u>Request</u>			
Headquarters	857	857	857	857
Operations	974	974	974	974
Transmission	203	203	203	203
R&D	14	14	14	14
Canal Corp	<u>482</u>	<u>482</u>	<u>482</u>	<u>482</u>
TOTAL	2,530	2,530	2,530	2,530

(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 2020-2023 period, constructed upon a level of expenses outlined within this Approved 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.

(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 2020-2023 period.

(k) Shift in Material Resources

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

(l) Debt Service

New York Power Authority				
Projected Debt Outstanding (FYE)				
(In \$ Thousands)				
	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Revenue Bonds	\$833,092	\$1,199,303	\$1,371,894	\$1,449,073
Subordinated Note	43,435	42,600	41,745	38,530
Commercial Paper Notes	604,979	605,000	605,000	605,020
<u>Grand Total</u>	<u>\$1,481,506</u>	<u>\$1,846,903</u>	<u>\$2,018,639</u>	<u>\$2,092,623</u>

New York Power Authority
Debt Service as Percentage of Pledged Revenues
(In \$ Thousands)

	2020		2021		2022		2023	
	<u>Debt Service</u>	<u>% of Rev.</u>	<u>Debt Service</u>	<u>% of Rev.</u>	<u>Debt Service</u>	<u>% of Rev.</u>	<u>Debt Service</u>	<u>% of Rev.</u>
Revenue Bonds Subordinated Debt	\$67,775	2.60%	\$60,692	2.25%	\$90,347	3.32%	\$80,389	2.84%
Commercial Paper Notes	2,435	0.09%	2,436	0.09%	4,774	0.18%	2,370	0.08%
	9,492	0.36%	9,658	0.36%	9,829	0.36%	10,004	0.35%
Grand Total Debt Service	<u>\$79,702</u>	3.05%	<u>\$72,786</u>	2.70%	<u>\$104,951</u>	3.86%	<u>\$92,763</u>	3.27%

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

<u>TYPE</u>	<u>Amount</u>	<u>Interest Rate</u>	<u>Description</u>
<u>Period January 1, 2020 – December 31, 2020</u>			
Tax Exempt Commercial Paper	\$0	1.50%	Energy Efficiency Program
Taxable Commercial Paper	6,610	2.05%	Energy Efficiency Program
Tax Exempt Revenue Bonds	130,985	3.19%	Transmission
Taxable Revenue Bonds	<u>55,677</u>	4.19%	Robert Moses Power Plant/Lewiston Pump Generating Plant
Total Issued 2020	<u>193,272</u>		
<u>Period January 1, 2021 – December 31, 2021</u>			
Tax Exempt Commercial Paper	0	1.50%	Energy Efficiency Program
Taxable Commercial Paper	8,095	2.05%	Energy Efficiency Program
Tax Exempt Revenue Bonds	195,511	3.19%	Transmission
Taxable Revenue Bonds	<u>44,551</u>	4.19%	Robert Moses Power Plant/Lewiston Pump Generating Plant
Total Issued 2021	<u>248,157</u>		
<u>Period January 1, 2022 – December 31, 2022</u>			
Tax Exempt Commercial Paper	0	1.25%	Energy Efficiency Program
Taxable Commercial Paper	8,352	1.80%	Energy Efficiency Program
Tax Exempt Revenue Bonds	147,393	2.94%	Transmission
Taxable Revenue Bonds	<u>40,802</u>	3.94%	Robert Moses Power Plant/Lewiston Pump Generating Plant
Total Issued 2022	<u>196,547</u>		
<u>Period January 1, 2023 – December 31, 2023</u>			
Tax Exempt Commercial Paper	0	1.50%	Energy Efficiency Program
Taxable Commercial Paper	8,561	2.05%	Energy Efficiency Program
Tax Exempt Revenue Bonds	71,037	3.19%	Transmission
Taxable Revenue Bonds	<u>58,327</u>	4.19%	Robert Moses Power Plant/Lewiston Pump Generating Plant
Total Issued 2020	<u>\$137,925</u>		

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.

Scheduled Debt Service Payments
(In \$ Thousands)

Outstanding (Issued) Debt

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2020	\$30,675	\$38,715	\$69,390
2021	16,460	36,861	53,321
2022	42,935	35,973	78,908
2023	15,960	33,811	49,771

Proposed Debt

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2020	\$0	\$10,812	\$10,812
2021	0	19,465	19,465
2022	0	26,043	26,043
2023	12,465	30,528	42,993

Total Debt

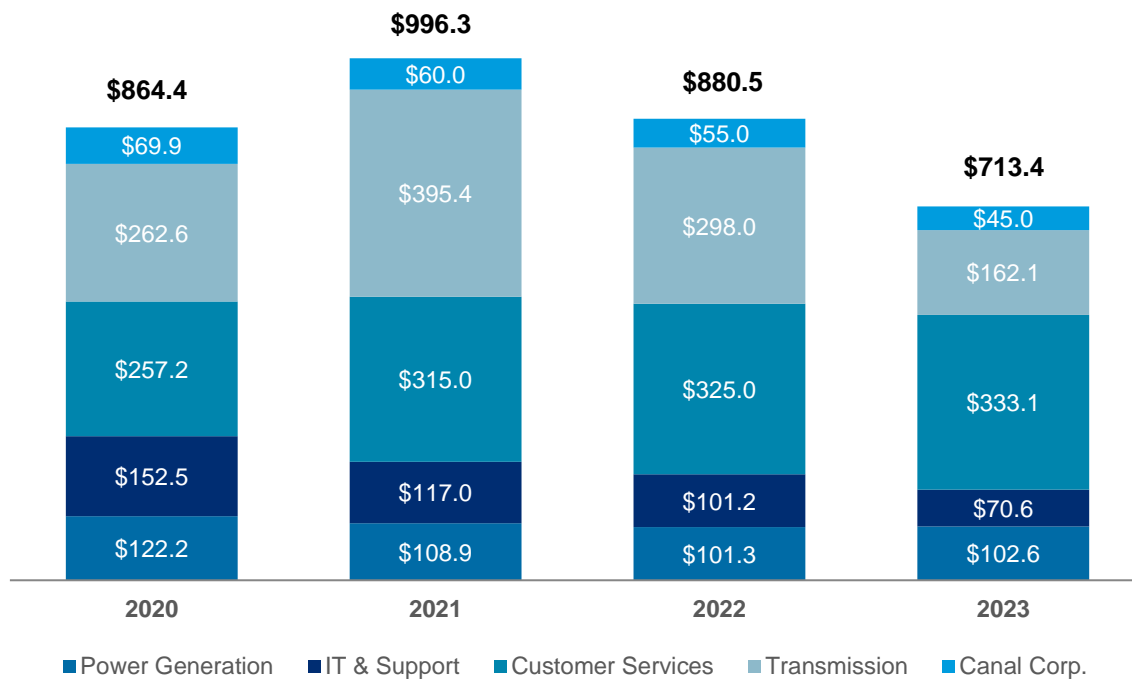
	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2020	\$30,675	\$49,527	\$80,202
2021	16,460	56,326	72,786
2022	42,935	62,016	104,951
2023	28,425	64,339	92,764

(m) Capital Commitments and Sources of Funding

The Authority's commitments for various capital improvements are approximately \$3.5 billion over the financial period 2020-2023. 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.

(In \$ Millions)	2020	2021	2022	2023
Communication Backbone	\$51.7	\$40.2	\$0.0	\$0.0
Transmission Life Extension & Modernization Program	39.1	43.0	51.0	50.2
Large Energy Storage (Zones D &K)	15.8	9.5	15.3	0.0
Moses Adirondack Transmission Line Upgrade	91.5	189.6	124.2	23.5
AC Transmission Line	27.1	90.3	109.5	48.2
Robert Moses Life Extension & Modernization Program	24.9	33.6	31.6	53.6
Evolve NY	36.8	42.0	42.0	42.0
Canal Corporation	69.9	60.0	55.0	45.0
Customer Services	257.2	315.0	325.0	333.1
Other NYPA Capital	250.4	173.1	126.9	117.8
GRAND TOTAL	\$864.4	\$996.3	\$880.5	\$713.4

2020-2023 Capital Commitments by Function
(In \$ Millions)



(n) Credit Discussion

Maintaining a strong relationship with the capital markets is critical to how NYPA operates. Fitch Ratings, S&P Global Ratings, and Moody's Investor Services currently assign a AA 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.

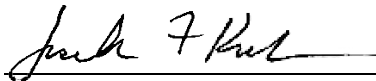
In order to support our AA bond rating and all of the advantages it offers the Authority and its customers, NYPA sets certain internal targets which are consistent with other peer rated organizations. In May 2011, the Authority's Trustees adopted a policy statement (Policy Statement) which relates to, 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.

**Certification of Assumptions and Method of Estimation for
Budget and Financial Plan 2020-2023 in accordance with the
Comptroller's Regulation § 203.9 Certification**

December 11, 2019

To the Board of Trustees
Power Authority of the State of New York

To the best of my knowledge and belief after reasonable inquiry, I, the undersigned, certify that the "Authority's Method of Estimation for Budget and Financial Plan 2020-2023" is based on reasonable assumptions and methods of estimation and that the regulations enumerated in Part 203, "Budget and Financial Plan Format, Supporting Documentation and Monitoring - Public Authorities" have been satisfied.



Joseph Kessler
Chief Operating Officer



Adam Barsky
Chief Financial Officer

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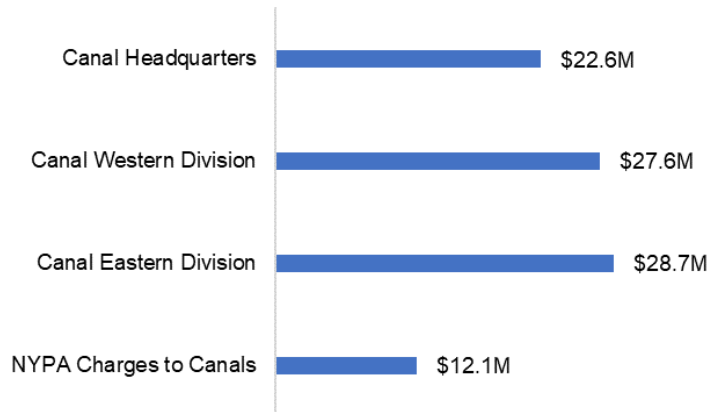




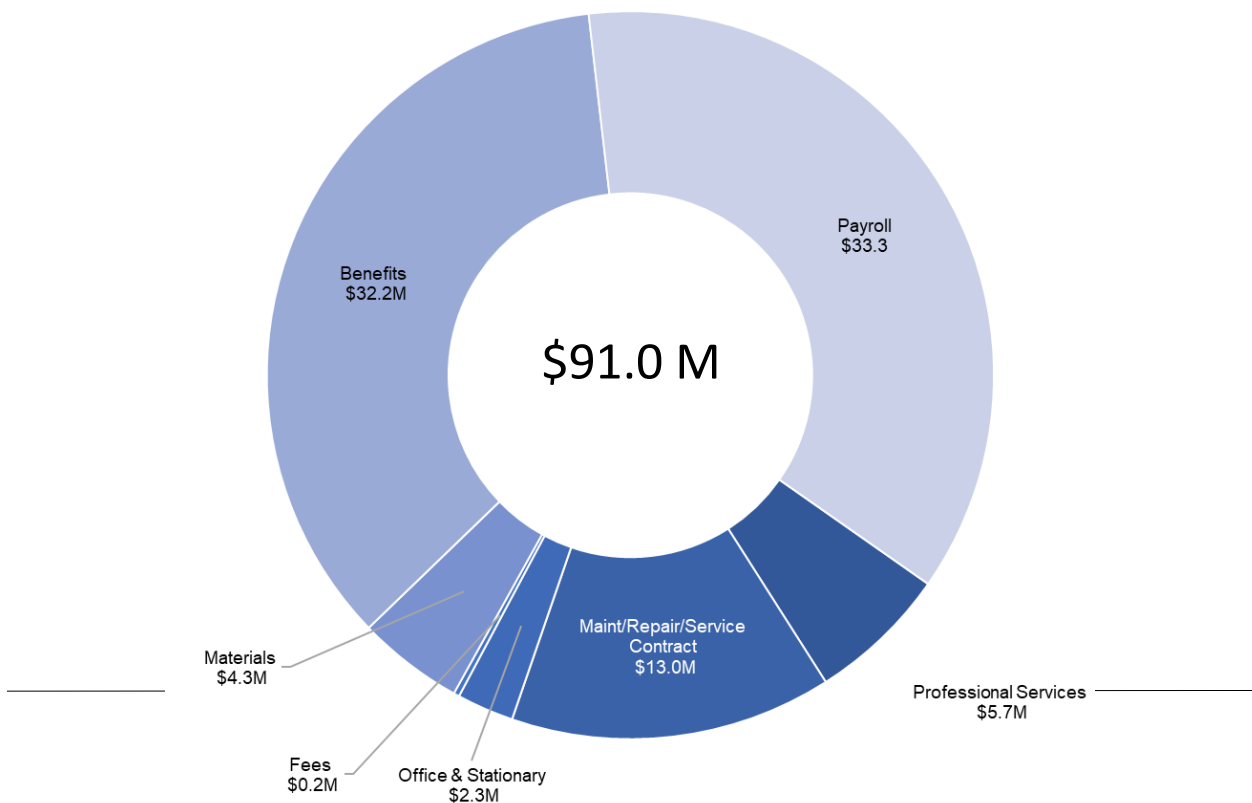
Memorandum

Departments	2019 Budget	2020 Request	Inc/(Dec) \$ Chg	Inc/(Dec) % Chg
Canal Headquarters	21,788.1	22,575.1	787.1	3.6%
Canal Eastern Division	22,752.8	28,736.2	5,983.4	26.3%
Canal Western Division	28,091.3	27,651.4	(440.0)	(1.6%)
NYPA Direct Charge to Canals	7,931.7	5,408.2	(2,523.4)	(31.8%)
NYPA Direct Assess to Canals	5,646.6	6,656.1	1,009.5	17.9%
Total Canal Corporation	86,210.5	91,027.1	4,816.6	5.6%

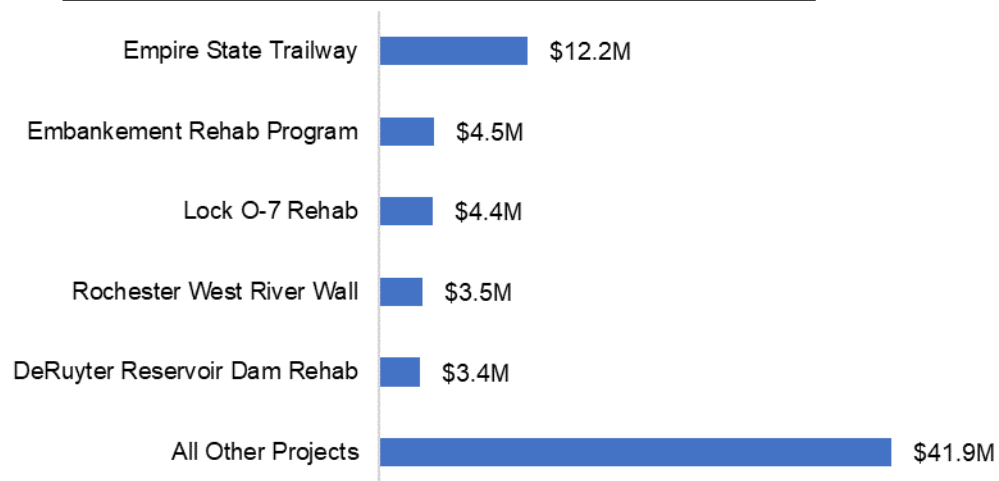
Canal Corporation \$91.0 M



Canal Corporation by Cost Element



Canal Corporation Capital Projects \$69.9M



RESOLUTION

WHEREAS, **Dr. Anne M. Kress**, who has faithfully served with great distinction on the Board of Trustees of the New York Power Authority since 2014—and on the joint NYPA and New York State Canal Corporation board since 2017—tenured her resignation this past October in anticipation of moving out of New York State; and

WHEREAS, Dr. Kress is leaving her full-time position as President of Monroe Community College in Rochester, which she headed over the past decade, to become President early next year of Northern Virginia Community College (NOVA), an academic institution of more than 92,000 students on six campuses, after being selected for that office following a nationwide search; and

WHEREAS, Dr. Kress's service on behalf of NYPA and New York State coincided with dynamic developments expanding the extent of the Power Authority's impact on the state's electric power system, economy and environment. The enlarged responsibilities included the transfer of the Canal Corporation, as a subsidiary organization, from the New York State Thruway Authority to the Power Authority, expanding the scope and decision-making of NYPA's staff and Trustees; and

WHEREAS, Dr. Kress, as chairperson of the NYPA-Canal Governance Committee and a member of several other trustees' committees, was at the center of many of the key actions engaging the board in its oversight of the executive management of the two organizations; and

WHEREAS, these actions pivoted off of the direction set by Gov. Andrew M. Cuomo for transforming and modernizing the electric power system in New York State, including steadily integrating additional amounts of renewable power supplies to combat climate-changing greenhouse gas emissions, with the statutorily mandated requirement of 100 percent of the electricity to be generated by renewables by 2040 under his Climate Leadership and Community Protection Act; and

WHEREAS, Dr. Kress joined with other board members in supporting a multitude of ambitious NYPA initiatives to that end, from its setting the stage for offshore wind power development in the state to undertaking measures to exponentially increase the market penetration of electric vehicles through the EVolve NY program, and from the Power Authority being in the vanguard of exemplary asset management to its commitment to redoubled efforts to enhance the energy efficiency of thousands of public facilities across the state under the Governor's Build Smart NY program; and

WHEREAS, Dr. Kress's experiences as a leading citizen of the Rochester community, including serving as co-chair of the Finger Lakes Regional Economic Development Council and a board member of the Greater Rochester Chamber of Commerce, Greater Rochester Enterprise and the United Way of Greater Rochester, along with her association with various other noteworthy organizations, contributed to her insights for key NYPA endeavors in Western New York and other parts of the state. Among them were the Five Cities Energy Program, designed to

accelerate energy efficiency projects in Rochester and New York's four other largest cities outside of New York City, and the ReCharge NY program, Governor Cuomo's signature lower cost power allocation program for protecting and creating jobs throughout the state; and

WHEREAS, Dr. Kress exercised great care and due diligence in the NYPA-Canal trustees carrying out their fiduciary responsibilities for ensuring well-managed finances as evidenced by the Power Authority's continued exceptional bond ratings from the nation's three leading credit rating agencies; and

WHEREAS, Dr. Kress was also impactful in her support of the Reimagine the Canals Competition for generating new ideas for bringing added value from the Canal System and from her recognition of the imperative of continued investment in the infrastructure of the four historic canals making up the 524-mile system; and

WHEREAS, Dr. Kress was a leading voice in advancing the great strides by the Power Authority in diversity and inclusion, for bringing more women into leadership positions in what has traditionally been a male-dominated industry, along with her strongly supporting the Authority's policies for achieving a workforce that mirrors the mosaic of people in New York State of different races, ethnicities, religions, sexual orientations and other differences;

NOW THEREFORE BE IT RESOLVED, that the Trustees of the New York Power Authority and New York State Canal Corporation express their gratitude and appreciation to Dr. Anne M. Kress for her more than five years of distinguished service on the board and wish her great success in her new position as President of NOVA, where we know she will make outstanding contributions in leading that large academic community.

December 11, 2019