

**MINUTES OF THE REGULAR MEETING
OF THE
POWER AUTHORITY OF THE STATE OF NEW YORK**

December 15, 2016

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Minutes of the Regular Meeting of the Power Authority of the State of New York held via video conference at the Clarence D. Rappleyea Building, 123 Main Street, White Plains, New York at approximately 10:00 a.m.

Members of the Board present were:

John R. Koelmel, Chairman
Eugene L. Nicandri, Vice Chairman
Dr. Anne M. Kress, Trustee
Anthony J. Picente, Jr., Trustee
Tracy McKibben, Trustee

Gil Quiniones	President and Chief Executive Officer
Justin Driscoll	Executive Vice President and General Counsel
Jill Anderson	Executive Vice President and Chief Commercial Officer
Joseph Kessler	Executive Vice President and Chief Operating Officer
Robert Lurie	Executive Vice President and Chief Financial Officer
Kimberly Harriman	Senior Vice President – Public and Regulatory Affairs
Ken Lee	Senior Vice President and Chief Information Officer
Soubhagya Parija	Senior Vice President and Chief Risk Officer
Kristine Pizzo	Senior Vice President – Human Resources
Jennifer Sutton	Senior Vice President – Internal Audit
Bradford Van Auken	Senior Vice President – Operations Support Svcs & Chief Eng
Karen Delince	Vice President and Corporate Secretary
Thomas Concadoro	Vice President and Controller
John Canale	Vice President – Procurement
Keith Hayes	Vice President – Marketing
Joseph Leary	Vice President – Community and Government Relations
Patricia Lombardi	Vice President – Project Management
Anne Reasoner	Vice President – Budgets and Business Controls
Ethan Riegelhaupt	Vice President – Corporate Communications
Scott Tetenman	Vice President – Finance
Brian McElroy	Treasurer
Steven Gosset	Manager – Media Relations
Silvia Louie	Senior Project Manager – Executive Office/Public and Regulatory Affairs
Lorna Johnson	Senior Associate Corporate Secretary
Sheila Baughman	Senior Assistant Corporate Secretary
Jaiah Gottor	Manager – Network Services – Infrastructure
Joseph Rivera	Network Architect – Infrastructure
Glenn Martinez	Senior Network Analyst – Infrastructure
Brian U. Stratton	Director – NYS Canal Corporation
Michael Bopp	Program Director – NYS Canal Corporation

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

Introduction

Chairman Koelmel welcomed the Trustees and 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 15, 2016 Proposed Meeting Agenda**

Upon motion made by Vice Chairman Nicandri and seconded by Trustee McKibben, the meeting Agenda was adopted.

Conflicts of Interest

Trustee Kress declared conflicts of interest as indicated below and said she would not participate in the discussions or votes as it relates to those matters.

Trustee Kress:

- *Lewis Tree Service, Inc. (Item #4b i)*
- *LaBella Associates, DPC (Item #4b i)*

Chairman Koelmel, Vice Chairman Nicandri and Trustees Picente and McKibben declared no conflicts of interest.

President Quiniones said that before the next Trustee action he wanted to welcomed Mr. Brian Stratton and Mr. Michael Bopp of the Canal Corporation to the meeting. He said although the NYPA/Canal integration is not official until January 1st, teams from both organizations have been working hard toward this goal. They are here today to observe the Authority's Board meeting. The Canal Corporation will formally be a part of the entire process at the January 31st Board meeting.

Chairman Koelmel also welcomed Mr. Stratton and Mr. Bopp and said the members were pleased and excited to have them as part of the NYPA family, and look forward to the work that will be done together in the years ahead.

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

Mr. Chairman, I move that the Authority conduct an executive session pursuant to the Public Officers Law of the State of New York sections §105 (f) to discuss the financial, credit or employment history of a particular person or corporation. Upon motion made by Trustee McKibben and seconded by Vice Chairman Nicandri, an executive session was held.

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

Mr. Chairman, I move to resume the meeting in Open Session. Upon motion made by Vice Chairman Nicandri and seconded by Trustee McKibben, the meeting resumed in open session.

4. CONSENT AGENDA:

Upon motion made by Vice Chairman Nicandri and seconded by Trustee McKibben, the Consent Agenda was approved.

a. Governance Matters:

i. Approval of the Minutes

The Minutes of the Regular Meeting held on September 27, and Special meeting held on November 7, 2016 were unanimously adopted.

ii. **Proposed Schedule of Trustees' Meetings in 2017**

The Vice President and Corporate Secretary submitted the following report:

"The following schedule of meetings for the year 2017 is recommended:

MONTH OF TRUSTEES' MEETING	TRUSTEES' MEETING DATE <i>(All meetings on Tuesday except where indicated)</i>
JANUARY	January 31, 2017 – WPO
FEBRUARY	No Meeting Scheduled
MARCH	March 21, 2017 – ANNUAL – WPO
APRIL	No Meeting Scheduled
MAY	May 24, 2017 – VIDEOCONFERENCE (Wednesday)
JUNE	No Meeting Scheduled
JULY	July 25, 2017 – WPO
AUGUST	No Meeting Scheduled
SEPTEMBER	September 26, 2017 – WPO
OCTOBER	No Meeting Scheduled
NOVEMBER	November 2, 2017 – WPO - Thursday <i>(Tentative Meeting Date subject to confirmation)</i>
DECEMBER	December 12, 2017 – WPO

RECOMMENDATION

The President and Chief Executive Officer and I support the proposed schedule for the Authority's Trustees' Meetings for the year 2017, as set forth in the foregoing report.

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

The following resolution, as submitted by the Vice President and Corporate Secretary, was unanimously adopted.

RESOLVED, That the schedule of Trustees' Meetings for the year 2017, as set forth in the foregoing report of the Vice President and Corporate Secretary, be, and hereby is, approved.

b. Procurement (Services) Contracts:

**i. Procurement (Services) and Other 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 ‘4b i-A,’ as well as the continuation and/or funding of the procurement (services) and other contracts listed in Exhibit ‘4b 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 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 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 \$3 million, as well as personal services contracts in excess of \$1 million if low bidder, or \$500,000 if sole-source, single-source or non-low bidder.

The Authority’s 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 \$1 million or 25% of the originally approved contract amount not to exceed \$3 million.

DISCUSSION

Awards

The terms of these contracts will be more than one year; therefore, the Trustees’ approval is required. 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, which range in estimated value from \$159,660 to \$11 million. 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 ‘4b 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 '4b 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 a 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:

Human Resources & Enterprise Shared Services ('ESS')

HR & Organizational Development

The contract with **Development Dimensions International, Inc. ('DDI') (Q16-6087JMT; PO# TBA)** would provide for training services / workshops for skills enhancement in connection with providing and receiving meaningful performance feedback, as well as coaching skills for staff development. Bid documents were developed by staff and were downloaded electronically from the Authority's Procurement website by 48 firms / entities; one additional firm obtained the bid documents from an alternate source. Four proposals were received and evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of a contract to DDI on the basis of 'best value', which optimizes quality, cost and efficiency among responsive and responsible offerers. The DDI proposal was fully responsive to the Authority's bid requirements and offered the best approach and associated tools for the target audiences, specifically the application toolkit and post-training reinforcement. Furthermore, DDI has extensive experience and expertise in providing an array of consultative learning solutions and products in performance and execution, leadership development, succession planning and leader selection. The contract would become effective on or about January 1, 2017 for an intended term of up to five years (initial 3-year award with an option to extend for up to two additional years), subject to the Trustees' approval, which is hereby requested. Approval is also requested for the total amount expected to be expended for the term of the contract, \$505,000.

The contract with **Essense Partners, Inc. ('Essense') (Q16-6110JMT; PO# TBA)** would provide for consulting services with respect to change management and strategic communications, in order to ensure that employees are aware of the impact of internal and external changes affecting the Authority and the energy industry. Services include developing a creative message and engaging storyline to manage change within the organization, with the goal of engaging employees and connecting them with the future vision. Bidders were requested to illustrate strategic change management projects related to human resources, their communication approach and examples with measured impact, including the steps and outputs for each of the following project stages: gathering intelligence, articulating the story, preparing leaders to communicate, developing an employee engagement plan, and implementing the 2017 communications plan. To that end, bid documents were developed by staff and were downloaded electronically from the Authority's Procurement website by 122 firms / entities, including those that may have responded to a notice in the New York State *Contract Reporter*. Fifteen proposals were received and evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of a contract to Essense on the basis of 'best value', which optimizes quality, cost and efficiency

among responsive and responsible offerers. The contract would become effective on or about January 1, 2017, for an intended term of up to two years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the aggregate total amount expected to be expended for the term of the contract, \$1 million. It should be noted that Essense is a NYS-certified Minority- and Woman-owned Business Enterprise ('MWBE').

ESS – Real Estate and Utility Operations - Transmission

The contract with **Network Mapping, Inc. (Q16-6101JM; PO# TBA)** would provide for transmission corridor Light Detection and Ranging ('LiDAR') surveying and mapping support services for all Authority facilities statewide, on an 'as needed' basis. Services include, but are not limited to, providing remotely sensed vegetation and ground clearance surveys and circuit thermal rating analyses for the Authority's 1,400 miles of transmission facilities, airborne LiDAR data capture, orthophotography, high resolution oblique still photography and video on right-of-way ('ROW') vegetation clearance analyses and off ROW 'danger tree' analyses, PLS-CADD engineering models for thermal rating and clearance evaluation, as-built plan and profiles, and such other related services as may be required. Bid documents were developed by staff and were downloaded electronically from the Authority's Procurement website by 86 firms / entities, including those that may have responded to a notice in the New York State *Contract Reporter*. Seven proposals were received and evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of a contract to Network Mapping, the lowest-priced bidder, which was also deemed highly technically qualified and responsive to the bid requirements. The contract would become effective on or about January 1, 2017 for an intended term of up to four years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the total amount expected to be expended for the term of the contract, \$2 million.

Information Technology ('IT') on behalf of Accounts Payable

The contract with **Concur Technologies, Inc., an SAP Company ('Concur') (PO# TBA)** would provide for an integrated Travel and Expense management cloud-based software solution, including hosting and related services, as well as a mobile application. The objective is to streamline the Authority's current travel and expense reimbursement process by facilitating employee submission of travel expenses with prompt, user-friendly, secure and transparent automated submittal and reconciliation of all employee travel-related credit card and other charges. Concur is the market leader for integrated travel and expense management solutions that would become part of the Authority's SAP portfolio. At the Authority's request, multiple proofs-of-concept were conducted by Concur, which validated staff's decision to select Concur and this best-in-class SAP product / service to manage the entire expense process. Based on the foregoing and as further set forth in the Award Recommendation documents, staff recommends the award of a contract to Concur on a single-source basis. The Concur travel and expense solution offers major advantages over the Authority's current system that will significantly reduce processing time, boost productivity and control costs. The contract would become effective on or about December 16, 2016 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 amount expected to be expended for the term of the contract, \$526,520.

As a result of multiple cyber security assessments conducted by various firms in 2015 and early 2016, the Authority had engaged the Deloitte firm to provide for the services of a Chief Security Officer ('CSO') on an interim basis, during the Authority's recruitment process for a permanent hire. Deloitte also provided support for strategic initiative cyber programs including detailed planning for the cyber security capital program, developed a remediation roadmap / program to close known vulnerabilities and transform the Authority's cyber program into a modern utility security service, and supplied initial Enterprise Architecture services, including development of a reference architecture for the Authority enterprise. Since the prior contract was expiring and in order to maintain the momentum on cyber remediation efforts already underway and without interruption, interim approval was obtained to award a new contract to **Deloitte Consulting LLP ('Deloitte') (4500279081)**, effective November 14, 2016, in the

initial not-to-exceed award amount of \$2.5 million, subject to the Trustees' ratification and approval, in accordance with the Authority's Guidelines for Procurement Contracts. The subject contract, issued pursuant to a procurement contract let by the General Services Administration, provides for continued interim CSO advisory services, immediate initiation of work plans aligned with capital projects focused on the following areas: Threat and Vulnerability Management, Resilience, Governance Risk and Compliance, Identity and Access Management, and Infrastructure Security, as well as support for Enterprise Architecture, as further set forth in the Award Recommendation documents. Staff recommends the award of the subject contract to Deloitte, which is uniquely qualified to continue to meet IT and Enterprise objectives for cyber security implementation, and has provided satisfactory services under the prior contract for such work. The Trustees are hereby requested to ratify and approve award of the subject contract, in the initial award amount of \$2.5 million, for an intended term of up to one year (until such time as a new multiyear contract for IT Co-sourcing services to be competitively bid in 2017 is in place). Approval is also requested for the total amount expected to be expended for the term of the contract, \$7,995,396.

Law Department

Corporate Secretary's Office (on behalf of Marketing / Business Power Allocations + Environment, Health and Safety)

The Authority is required to publish notice of public hearings or public forums on proposed contracts for the sale of power, certain prospective allocations of power and allocations of economic development power recommended by the Economic Development Power Allocation Board, as well as notices relating to permitting and other environmental actions and various events that affect communities. The contract with **Miller Advertising Agency, Inc. ('Miller') (Q16-6109JMT; PO# TBA)** would provide for media advertising services for the placement of such mandatory legal notices and public advertisements for the Authority in newspapers and periodicals throughout New York State, primarily on behalf of Marketing / Business Power Allocations and the Environment, Health and Safety Departments/Divisions. Such services may include, but are not limited to, advertising design, preparation and proofs, as well as affidavits of publication. Bid documents were developed by staff and were downloaded electronically from the Authority's Procurement website by 55 firms / entities, including those that may have responded to a notice in the New York State *Contract Reporter*; two additional firms obtained the bid documents from an alternate source. Four proposals were received and evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of a contract to Miller on the basis of 'best value,' which optimizes quality, cost and efficiency among responsive and responsible offerers. While the other three proposals met the bid requirements, they were determined to be higher-priced based on a typical sample analysis conducted by staff. The contract would become effective on or about January 1, 2017, for an intended term of up to five years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the aggregate total amount expected to be expended for the term of the contract, \$500,000.

Risk Management

The Risk Management group at the Authority provides a coordinated approach to identifying, assessing and managing risks across the organization. Risk categories in finance (e.g., exposure to energy commodity markets, credit risk, liquidity and uncertainty in net revenue), as well as infrastructure, operational reliability, safety, workforce management, customer and legal and regulatory compliance are addressed under the program. The contracts with **AON Risk Services Northeast, Inc. ('AON'), Deloitte & Touche LLP ('D&T'), Ernst & Young LLP ('EY'), PA Consulting Group, Inc. ('PAC'), Pivotal Risk Advisors, Inc. ('PRA'), and The Brattle Group, Inc. ('Brattle') (Q16-6095MR; PO#s TBA)** would provide for risk management consulting services to the Authority, in one or more of the following five work areas: 1) Risk Management Program Support for progression and maturation of the Authority's Enterprise Risk Management program in ten potential areas (D&T and EY); 2) Risk Modeling and Quantification (Brattle); 3) Energy Derivative Fair Market Valuation and/or Validation (PAC); 4) Insurance Support

(AON and D&T); and 5) Credit Risk Support (PRA). Such services will support the Risk Management program in achieving its mission to protect and enhance the value of the organization through informed risk-based decision-making for optimal resource allocation. To that end, bid documents were developed by staff and were downloaded electronically from the Authority's Procurement website by 155 firms / entities, including those that may have responded to a notice in the New York State *Contract Reporter*. Thirteen bids were received and evaluated, as further set forth in the Award Recommendation documents. A thorough technical review of the proposals indicated that no single firm was fully responsive to all the bid requirements. A number of firms demonstrated specific expertise, experience, skills, strengths and qualifications in different work areas that complement each other and, which taken as a whole, would provide the Authority with the ability to award specific well-defined tasks to the best-qualified firm that can complete each task most efficiently and at competitive rates. Based on the foregoing, staff recommends the award of contracts to the six aforementioned firms, which met the bid requirements and were determined to be the most technically qualified bidders within the specified work areas. The award of contracts to these six firms would provide the most benefit to the Authority; together these firms possess the high level, breadth and depth of requisite experience and expertise, thereby ensuring the Authority of adequate quality resources, as needed. It should be noted that three of these firms have provided satisfactory services under existing contracts for such work. The new contracts would become effective on or about January 1, 2017, for an intended term of up to five years, subject to the Trustees' approval, which is hereby requested. (All such contracts would be coterminous, regardless of the start date.) Approval is also requested for the aggregate total amount expected to be expended for the term of the contracts, \$5 million. Such contracts will be monitored for utilization levels, available approved funding and combined total expenditures.

Utility Operations

Transmission

The contract with **Allen Chase Enterprises, Inc. ('ACE') (Q16-6098JM; PO# TBA)** would provide for bare ground weed control services at the Authority's substations, switchyards, pole yards, microwave tower sites, and various other sites in various locations throughout New York State designated for treatment in accordance with the Authority's specifications. Such vegetation will be controlled by both pre-emergent and post-emergent chemical methods employing the use of soil sterilants and selective use of herbicides, applied by a New York State-registered Certified Pesticide Applicator certified for the right-of-way category, for the purpose of removing or preventing the emergence of undesirable vegetation at the Authority's electrical facilities. Services include all labor, supervision, materials, chemicals, tools and equipment for execution of the work. Such work will be performed in close proximity to electric transmission lines while these lines are presumed to be energized. Bid documents were developed by staff and were downloaded electronically from the Authority's Procurement website by 39 firms / entities, including those that may have responded to a notice in the New York State *Contract Reporter*. Three proposals were received and evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of a contract to ACE, the lowest evaluated price bidder, which is technically qualified and meets the bid requirements. The contract would become effective on or about January 1, 2017, for an intended term of up to four years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the total amount expected to be expended for the term of the contract, \$200,000.

The contract with **Haverfield Aviation, Inc. ('Haverfield') (C16-81916MG; PO# TBA)** would provide for comprehensive aerial / infrared / corona inspections via helicopter, maintenance and repair of designated sections of the Authority's transmission lines and associated structures located throughout New York State. Inspection services also include preparation of digital reports containing descriptions and pictures of all conditions found during the inspection. Such aerial inspections will be conducted at the rate of approximately 20% of the lines per year over a five-year cycle; infrared and corona inspections will be performed on a yearly cycle. The maintenance is performed from a helicopter platform on energized lines owned and maintained by the Authority in 23 counties in New York State and is scheduled, as necessary, throughout the year. Bid documents were developed by staff and were downloaded

electronically from the Authority's Procurement website by 44 firms / entities, including those that may have responded to a notice in the New York State *Contract Reporter*. Two proposals were received and evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of a contract to Haverfield, the lower evaluated price bidder, which is technically qualified to perform such services, meets the bid requirements and has provided satisfactory services under an existing contract for such work. The new contract would become effective on or about January 1, 2017, 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 amount expected to be expended for the term of the contract, \$2.8 million.

The single largest cause of electric power outages is trees growing into or falling onto overhead power lines. The Federal Energy Regulatory Commission ('FERC'), the National Electric Reliability Council ('NERC') and the New York State Public Service Commission ('PSC') have taken proactive steps to ensure that all utilities have a strong Integrated Vegetation Maintenance program in place. Accordingly, the Authority has implemented a vegetation management program through a series of four-year treatment cycles; continuation of this program will ensure that the Authority continues to be a leader in this now widely scrutinized and sensitive aspect of the utility industry. Bid documents were developed by staff and were downloaded electronically from the Authority's Procurement website by 50 firms / entities, including those that may have responded to a notice in the New York State *Contract Reporter*. Six proposals were received and evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of a contract to **Lewis Tree Service, Inc. ('Lewis Tree') (Q16-6065JM; PO# TBA)**, the lowest evaluated price bidder, which is technically qualified to perform the work, meets the bid requirements and has provided satisfactory services under an existing contract for such work. Lewis Tree, a licensed pesticide applicator in New York State and a line clearance contractor, will perform all work in compliance with all appropriate, applicable and relevant Occupational Safety and Health Administration ('OSHA') and American National Standards Institute ('ANSI') requirements. The new contract with Lewis Tree would continue to provide for Right-of-Way ('ROW') vegetation management services for the next four-year treatment cycle, including various chemical and mechanical/manual treatments, over a range of vegetation sites within the ROW of high-voltage transmission lines under the Authority's maintenance jurisdiction, covering approximately 16,000 managed acres. The contractor will supply all necessary labor, supervision, materials, chemicals, tools and equipment to control undesirable target trees along more than 1,400 miles of high-voltage transmission lines. In addition, approximately 900 danger trees along the sides of the transmission ROW will be removed annually. Access roads will be maintained free of all woody and/or encroaching vegetation. Repairs will be made, as necessary, along these access roads and may include installation of culverts or gates, as well as gravel. It should be noted that Lewis Tree has consistently been responsive to the Authority's needs and provided timely support for storm remediation work in the vicinity of the Blenheim-Gilboa Project. The new contract would become effective on or about January 1, 2017, for an intended term of up to four years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the total amount expected to be expended for the term of the contract, \$11 million.

500 MW Plant

The contract with **Sentry Equipment Corp. ('Sentry') (Q16-6097HM; PO# TBA)** would provide for maintenance services to support operation of the chemistry analyzer monitoring panel at the 500 MW Plant. Such services include, but are not limited to, technical support for troubleshooting and repairs to all chemistry analyzers and related equipment inside the plant's water chemistry laboratory. Monthly service includes: calibrations, accuracy verifications and assurance testing, preventative maintenance, reagent replacement, drift factor determination, and application customizations for online water chemistry instrumentation, as well as monthly service reports. Bid documents were developed by staff and were downloaded electronically from the Authority's Procurement website by 20 firms / entities, including those that may have responded to a notice in the New York State *Contract Reporter*. One proposal was received and evaluated, as further set forth in the Award Recommendation documents. Reasons provided by some of the other potential bidders as to why they did not submit a bid included that their present work load was too heavy at this time, this was not their scope of work or they downloaded the bid documents for information purposes only. Staff recommends the award of a contract to Sentry, which is

technically qualified to perform such work, meets the bid requirements and has provided satisfactory services under an existing contract for such work. The contract would become effective on or about January 1, 2017, 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 amount expected to be expended for the term of the contract, \$159,660.

Contracts to be issued by the New York Power Authority on behalf of the New York State Canal Corporation ('NYSCC'):

In order to meet the Authority's 'Day 1' (January 1, 2017) operational responsibility requirements with respect to the NYSCC, pursuant to Part TT of Chapter 54 of the Laws of 2016, Authority staff solicited proposals for certain on-call services on behalf of the NYSCC, as further set forth below.

The contracts with **AECOM USA, Inc. ('AECOM')**, **Arcadis of New York, Inc. ('Arcadis')**, **Greenman-Pedersen, Inc. ('GPI')**, **Mott MacDonald NY, Inc. ('Mott')** and **Ravi Engineering & Land Surveying, PC ('Ravi') (Q16-6114MH; PO#s TBA)** would provide for construction management and inspection services for the NYSCC. Such services are required to support the operation and maintenance of the NYSCC canal system and facilities. These on-call contracts would provide the NYSCC with a vehicle for rapid response to a wide variety of emergent tasks. Bid documents were developed by staff and were downloaded electronically from the Authority's Procurement website by 120 firms / entities, including those that may have responded to a notice in the New York State *Contract Reporter*. Five proposals were received and evaluated, as further set forth in the Award Recommendation documents. Staff recommends the award of contracts to the five aforementioned firms, which are technically qualified to perform such work, possess the requisite experience and meet the bid requirements, at reasonably-priced hourly rates. The award of multiple contracts ensures that adequate skill coverage will be available as required, supplementing the NYSCC's staff in some areas and providing timely access to specialty skills in others. Work will be assigned to the firm possessing the most capability in the area required and the ability to meet schedule constraints. The contracts would become effective on or about January 1, 2017, for an intended term of up to five years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the aggregate total amount expected to be expended for the term of the contracts, \$10 million. Such contracts will be monitored for utilization levels, available approved funding and combined total expenditures. It should be noted that Ravi is a NYS-certified MBE.

The contracts with **Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors, DPC ('Bergmann')**, **CHA Consulting, Inc. ('CHA')**, **LaBella Associates, DPC ('LaBella')**, **O'Brien & Gere Engineers, Inc. ('O'Brien')** and **Paul C. Rizzo Engineering – New York, PLLC ('Rizzo') (Q16-6115MH; PO#s TBA)** would provide for on-call consulting engineering services to support the operation and maintenance of the NYSCC infrastructure, locks, dams, spillways, waste weirs, feeder canals, guard gates, lift bridges, embankments, dam safety program and ancillary facilities. These on-call contracts would provide the NYSCC with a vehicle for rapid response to a wide variety of emergent tasks, many requiring specialty engineering expertise. Bid documents were developed by staff and were downloaded electronically from the Authority's Procurement website by 155 firms / entities, including those that may have responded to a notice in the New York State *Contract Reporter*. Eighteen proposals were received and evaluated, as further set forth in the Award Recommendation documents. Based on a thorough review and assessment of each bidder's respective qualifications, experience and expertise, as well as hourly rates, staff determined that the award of contracts to multiple technically qualified firms would provide the most benefit to the NYSCC, given the diversity of anticipated projects. Staff therefore recommends the award of contracts to the five aforementioned firms on the basis of 'best value', optimizing quality, cost and efficiency among responsive and responsible offerers. Together these firms meet all the bid requirements and possess the high level, breadth and depth of requisite experience and expertise, thereby ensuring that adequate and reasonably priced quality resources and skill coverage will be available, as needed, to supplement the NYSCC's staff in some areas and provide timely access to specialty skills in others. Work will be assigned to the firm possessing the most capability in the area required and the ability to meet schedule constraints. The contracts would become effective on or about

January 1, 2017, for an intended term of up to five years, subject to the Trustees' approval, which is hereby requested. Approval is also requested for the aggregate total amount expected to be expended for the term of the contracts, \$10 million. Such contracts will be monitored for utilization levels, available approved funding and combined total expenditures.

Extensions and/or Additional Funding Requests:

Human Resources & Enterprise Shared Services

HR - Knowledge Management

The contract with **American Productivity & Quality Center ('APQC') (4500266741)** provides for consulting services to support the Authority's Knowledge Management ('KM') Office and program. Such services include, but are not limited to, activities in connection with the design and execution of an assessment tool and benchmarking of current state Authority KM practices and maturity; knowledge management program support (e.g., taxonomy strategy documentation and development); strategic initiative and business alignment (KM roadmap); and metrics and Key Performance Indicators to evaluate the KM program. The original award, which was issued on a single-source basis, became effective on December 14, 2015 for an initial term of less than one year, in the amount of \$315,000. The contract term was subsequently extended through December 13, 2016 to perform additional work and an additional \$331,500 was authorized in accordance with the Authority's Procurement Guidelines and EAPs. Such work included the design and launch of KM processes and approaches as well as ongoing support for post-launch activities. An additional 3.5-month extension beyond the one-year term was authorized pursuant to the Procurement Guidelines and EAPs, subject to the Trustees' ratification, in order to complete all work, including but not limited to certain software deliverables that are in development. The current contract amount is \$646,500; staff anticipates that no additional funding will be required for the extended term. The Trustees are requested to ratify and approve extension of the subject contract through March 31, 2017, with no additional funding requested.

Information Technology

The Authority uses temporary staffing services to augment its technical personnel in support of various IT initiatives related to the SAP enterprise-wide financial / business management Enterprise Resource Planning ('ERP') system, as necessary. At their meeting of December 17, 2013, the Trustees approved the award of competitively bid contracts to 10 pre-qualified firms, as listed on Exhibit '4b i-B', resulting from Request for Quotation Q13-5484JR, to provide for the services of temporary programming personnel for specialized SAP-related tasks and projects to support various departments and initiatives, on an 'as needed' basis, for a term of up to three years, in the aggregate total amount of \$2.7 million. Such services and the originally approved funding have been and continue to be utilized at an accelerated rate to support major initiatives such as the Canal Corp. integration. Cumulative additional funding totaling \$1 million was subsequently authorized in accordance with the EAPs, thereby increasing the aggregate total contract value to \$3.7 million. Staff has concluded that the accelerated rate of services and funding utilization is expected to continue for the following reasons: better alignment with the business units and strategic initiatives; a changing operating environment; Canal Corp. integration; Ariba, Success Factor and HANA implementation as well as Fiori initiatives. Therefore, staff projects that additional funding in the aggregate amount of \$4 million will be required. A one-year extension is also requested in order to maintain the same vendor pool and continuity of temporary staff resources without disruption of services in order to support the aforementioned efforts and initiatives. The Trustees are requested to approve an extension through December 31, 2017 of contracts for such services with the firms listed on Exhibit '4b i-B', as well as the additional funding requested, thereby increasing the approved aggregate total to \$7.7 million. Such contracts will be monitored for utilization levels, available approved funding and combined total expenditures. It should be noted that four of these firms are New York State-certified MBEs and/or WBEs: Eclaro, Sapta, Sierra and Unique.

At their meeting of July 30, 2015, the Trustees approved the award of competitively bid contracts to 10 firms, as listed on Exhibit '4b i-B', resulting from Request for Quotation Q15-5841SR, to provide for SAP consulting services in four areas: advisory and consulting services, system integration and implementation services, end-to-end consulting services and turnkey solutions, for a term of up to three years, in the aggregate total amount of \$10.5 million. The overall objective was to identify and qualify a pool of firms / SAP consulting resources with the expert knowledge, experience and technical expertise to support business requirements pertaining to the expansion of the Authority's SAP environment with solutions best-suited to meet goals set by strategic initiatives. Such services and the originally approved funding have been and continue to be utilized at an accelerated rate, with significant programs yet to be completed during the remaining contract term. These include, but are not limited to: SAP Ariba implementation in support of the Procurement process efficiency effort; SAP integration of the Canal Corp. with the Authority's SAP system; support for the SAP SuccessFactors implementation for Human Resources; and the Fiori mobile platform implementation. Interim approval for aggregate additional funding in the amount of \$5 million was authorized in accordance with the Procurement Guidelines in order to support ongoing work requiring SAP consulting services. The current authorized aggregate Target Value is \$15.5 million; staff projects that additional funding in the aggregate amount of \$10 million will be required for the previously approved contract term, due to the increased need for additional SAP consulting services, to support the unanticipated Canal Corp. integration and the acceleration of the SAP Ariba implementation project. The Trustees are requested to ratify and approve the aforementioned \$5 million and to approve the additional funding now requested, thereby increasing the approved aggregate total to \$25.5 million. Such contracts will be monitored for utilization levels, available approved funding and combined total expenditures. It should be noted that A-1 is a NYS-certified MBE and Sierra is NYS-certified MWBE.

Utility Operations

Technology & Innovation – Research & Technology Development

The contract with **Arizona State University (4500267704)** provides co-funding for the **Power Systems Engineering Research Center ('PSERC')** project to study mitigating adverse impacts of negative damping induced by wind generators on power grid dynamics, as part of the Authority's PSERC membership. The original award, which was issued on a single-source basis, became effective on January 1, 2016 for a term of up to one year, in the amount of \$25,000. During the course of the work, it was realized that some of the tasks were more time-consuming than initially estimated by the PSERC and Authority team. Furthermore, given the research nature of the work, some of the initial assumptions had to be revisited based on new findings and some new solutions had to be proposed and investigated. A one-year extension is therefore requested in order to complete the work; this extension does not represent any change in the scope of work and project tasks remain the same as set forth in the original agreement. The current contract amount is \$25,000; no additional funding will be required for the extended term. The Trustees are requested to approve extension of the subject contract through December 31, 2017, with no additional funding requested.

Project Management

The competitively bid contract with **Ferguson Electric Construction Co. ('Ferguson') (4500252428)** provides for installation services for the Generator Step-Up Transformer Installation Project at the Robert Moses Niagara Power Plant. The original award became effective on November 20, 2014 for an initial term of less than one year, in the amount of \$371,900. Due to numerous quality issues encountered during the factory fabrication and acceptance testing of the new transformer (manufactured by another firm under a separate contract), delivery of the new transformer was delayed; consequently, the outage window to install the transformer in 2015 was missed and installation of the new unit was rescheduled for 2016. In response to these issues, at their meeting of July 30, 2015, the Trustees approved an extension of approximately 13 months through December 31, 2016 to allow sufficient time to

complete the original scope of work. A revised installation schedule was coordinated and Ferguson completed the pre-outage tasks, with the intent to install this unit in July 2016. However, an unplanned outage due to stator failure on another unit (#2) occurred on July 7, 2016, which required a shift in plant outage priorities; consequently, the installation of this unit (#5) was postponed until 2018. It would not be prudent to rebid this work. A two-year extension is therefore requested in order to allow sufficient time to complete the original scope of work. The current contract amount is \$358,695; staff anticipates that no additional funding in excess of the originally approved award amount will be required for the extended term. The Trustees are requested to approve extension of the subject contract through December 31, 2018, with no additional funding requested.

At their meeting of December 18, 2012, the Trustees approved the award of a competitively bid contract to **Voith Hydro, Inc. ('Voith') (4600002651)**, in the amount of \$7.2 million, to provide for all work required for the shop and field overhauls and replacement of accessories for Units 3 and 4 at the Crescent and Vischer Ferry Small Hydroelectric Plants, as part of the Life Extension and Modernization Program. The original award became effective on January 1, 2013 for an initial term through July 1, 2015. Inspections performed after disassembly of the first two units revealed that many key turbine components were in worse condition than originally anticipated, resulting in the need for additional work, time and funding. A one-year extension and additional funding were subsequently authorized in accordance with the Authority's Procurement Guidelines and EAPs. At their meeting of December 17, 2015, the Trustees approved an additional six-month extension through December 31, 2016 and ratified and approved cumulative additional funding totaling \$3,611,525, thereby increasing the total approved contract value to \$12,611,525. An additional six-month extension is now requested to resolve outstanding punch-list items for each unit and to complete contract closeout and turnover activities. The current contract amount is \$12,611,525; staff anticipates that no additional funding will be required for the extended term. The Trustees are requested to approve extension of the subject contract through July 1, 2017, with no additional funding requested.

FISCAL INFORMATION

Funds required to support contract services for various Business Units/Departments and Facilities have been included in the 2017 Proposed Operating Budget. Funds for subsequent years, where applicable, will be included in the budget submittals for those years. Payment will be made from the Operating Fund.

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.

Funds required to support contract services for the New York State Canal Corporation will be included in the NYSCC budget for each year. Payment will be made from the NYSCC Capital or Operating Fund.

RECOMMENDATION

The Senior Vice President – Operations Support Services and Chief Engineer, the Senior Vice President – Power Supply, the Senior Vice President and Chief Information Officer, the Senior Vice President and Chief Risk Officer, the Senior Vice President – Technology and Innovation, the Senior Vice President – Public and Regulatory Affairs, the Vice President and Corporate Secretary, the Vice President – Environment, Health & Safety, the Vice President – Project Management, the Vice President – Procurement, the Vice President – Engineering, the Vice President – Enterprise Shared Services, the Vice President – Marketing, the Vice President – HR & Organizational Development, the Manager – Business Power Allocations and Compliance, the Regional Manager – Western New York, the Regional Manager – Northern New York, the Regional Manager – Central New York and the Regional Manager – Southeastern New York recommend that the Trustees approve the award of multiyear procurement (services) contracts to the companies listed in Exhibit '4b i-A' and the extension and/or funding of the

procurement (services) and other contracts listed in Exhibit '4b 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 adopted with Trustee Kress recused from the vote as it relates to Lewis Tree Service, Inc. and LaBella Associates, DPC.

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 “4b 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 memorandum 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 “4b 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 memorandum 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.

ii. **Procurement (Services) Contract – Renewable Wind Development Engineering Support – Contract Award**

The President and Chief Executive Officer submitted the following report:

SUMMARY

The Trustees are requested to approve the award of five-year contracts for Renewable Wind Development Engineering Support, in the aggregate amount of \$2 million, to the four most technically qualified firms: AWS Truepower, LLC, Albany, NY ('AWST'); Burns & McDonnell Consultants, Inc., Wallingford, CT ('B&McD'); DNV KEMA Renewables, Inc., Seattle, WA ('DNV-GL'), and Mott McDonald USA LLC, New York, NY ('Mott').

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. In accordance with the Authority's Expenditure Authorization Procedures, the award of personal services contracts in excess \$1 million requires the Trustees' approval.

The New York Public Service Commission ('PSC') issued the Clean Energy Standard ('CES') on August 1, 2016. The CES obligates load serving entities to financially support new renewable generation in support of the State Energy Plan goal that 50% of the state's electricity is to be generated by renewable sources by 2030. While the New York Power Authority ('Authority') is not subject to the jurisdiction of the PSC, the Authority supports the State Energy Plan goals and will voluntarily comply with the 50% by 2030 objective. Consistent with the CES, the Authority is assessing the benefits of expanding its participation in the renewable energy generation market. As part of this effort, at this time, the Authority is seeking the services of qualified consultants to assist in identifying opportunities for new renewable wind generation facilities and to evaluate existing wind facilities.

DISCUSSION

In response to the Authority's Request For Proposal ('RFP') advertised in the New York State *Contract Reporter* and posted on the Authority's Procurement website on July 19, 2016 (Bid Inquiry Q16-6093MH), sixteen (16) firms submitted proposals. The RFP solicited proposals from engineering firms with experience performing analyses for utility scale solar and wind projects to support assessment of renewable wind and solar generation opportunities. At this time, the recommended awards are limited to renewable wind generation support services.

The evaluation criteria consisted of consultant team experience and depth; consultant firm renewable wind experience; experience with, and access to, tools and databases, methodology, schedule, compliance with bid requirements, and familiarity with NYISO control area.

The four firms recommended for contract awards have the requisite experience in the wind development engineering support; a strong pool of experienced professionals in wind generation; a robust methodology to meet the objectives of this RFP; and significant due diligence experience for potential investors in the wind energy market.

Services under these contracts will be provided on an as-needed basis and/or availability, using fixed price or hourly rates.

FISCAL INFORMATION

Funding for these activities is included in the 2017 budget, pending approval. Funds for subsequent years, where applicable, will be included in the budget submittals for those years, as tasks are assigned. Payments will be made from the Authority's Capital or Operations Fund, as appropriate.

RECOMMENDATION

The Vice President – Project and Business Development, and the Vice President – Procurement recommend that the Trustees approve the award of five-year contracts for Renewable Wind Development Engineering Support, in the aggregate amount of \$2 million, to AWS Truepower, LLC, Burns & McDonnell Consultants, Inc., DNV KEMA Renewables, Inc., and Mott McDonald USA LLC.

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 and the Authority's Expenditure Authorization Procedures, approval is hereby granted to award five-year Contracts, for Renewable Wind Development Engineering Support, for the aggregate total of \$2 million, to AWS Truepower, LLC, Albany, NY; Burns & McDonnell Consultants, Inc., Wallingford, CT; DNV KEMA Renewables, Inc., Seattle, WA, and Mott McDonald USA LLC New York, NY, as recommended in the foregoing report of the President and Chief Executive Officer;

Contractors

Contract Approval

AWS Truepower, LLC,
Burns & McDonnell Consultants, Inc.,
DNV KEMA Renewables, Inc., and
Mott McDonald USA LLC.

\$2 Million (Aggregate)

(Q16-6093MH)

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.

STL

**iii. Procurement (Services) Contract –
St. Lawrence-FDR Power Project – Shoreline
Stabilization Program – Contract Extension**

The President and Chief Executive Officer submitted the following report:

“SUMMARY

The Trustees are requested to approve a one-year extension through January 6, 2018, of an existing contract with J.E. Sheehan Contracting Corp. (4500267555) for shoreline stabilization, originally scheduled to be completed in one year or less and which will now extend beyond the one-year period. No additional funds are being requested at this time.

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. Extending a contract for services with the duration of less than 12 months, beyond that time, also requires the Trustees’ approval.

The Federal Energy Regulatory Commission (‘FERC’) issued a New License for the St. Lawrence-FDR Power Project on October 23, 2003. The Trustees accepted the New License at their meeting of November 25, 2003. License Article 401, Shoreline Stabilization, commits the Authority to construct small shoreline stabilization measures on Authority-owned property where requested by Adjacent Landowners pursuant to the FERC-approved Adjacent Landowner Stabilization Program (‘ALSP’).

DISCUSSION

The ALSP is a popular benefit provided to the local communities along the St. Lawrence Project boundary. The erosion control measures serve to reduce the loss of shoreline while enabling access to the water. Shoreline stabilization measures entail armoring the shoreline with rock walls, where appropriate, or by placing rip rap along the bank. Construction requires using heavy equipment, including large dump trucks and backhoes, to perform the work.

To protect the environment and the lawns of the adjacent landowners, this work is conducted during the winter when the ground is frozen and when the St. Lawrence River water levels are low. As such, the historical timeframe for performing this work entails obtaining all regulatory permits and hiring a contractor in the summer/fall season with work to be completed during the winter. Typically, the work can be completed within a three- to four-week period in the winter. In the spring, when conditions permit, contractors return to perform seeding and other appropriate restoration measures.

The Authority issued Purchase Order (‘PO’) #4500267555 on January 7, 2016, in the amount of \$187,000, for a term not to exceed one year, to construct shoreline stabilization measures on three small properties within the St. Lawrence Project Boundary. A Change Order in the amount of \$2,000 was issued for additional scope related to shoreline stabilization work on Wilson Hill, Lot 192, bringing the total value of this PO to \$189,000. This PO will expire on January 6, 2017 with work remaining to be completed.

The 2015-2016 winter season was unusual, in that river levels remained high and the ground never attained a deep freeze capable of supporting the heavy equipment. For these reasons, the Authority’s Licensing and Implementation team, along with the contractor, J.E. Sheehan Contracting Corp., and the Construction Manager, agreed that the work should be delayed pending more favorable

conditions. After reviewing possible work schedules this fall, staff has concluded that the most prudent course is to request that this contract be extended.

FISCAL INFORMATION

There are no additional funds being requested at this time.

RECOMMENDATION

The Vice President – Project and Business Development recommend that the Trustees authorize the extension of contract No. 4500267555 with J.E. Sheehan Contracting Corp. for one year through January 6, 2018, for shoreline stabilization within the St. Lawrence-FDR Project boundary.

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 Trustees hereby approve the extension of contract No. 4500267555, with J.E. Sheehan Corporation, in the amount of \$189,000, to construct shoreline stabilization along three small properties within the St. Lawrence-FDR Project Boundary, with original completion date of January 6, 2017, to January 6, 2018; and be it further

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

NIA

**iv. Procurement (Services) Contracts –
Power Vista Visitors Center – Maintenance
and Repair of Exhibits and Software Service
and Support – Contract Awards**

The President and Chief Executive Officer submitted the following report:

“SUMMARY

The Trustees are requested to approve three-year contracts with Hadley Exhibits, Inc. of Buffalo, New York, totaling up to \$370,000, for the operations, maintenance and repair of exhibits; and for software service and support, content hosting, security and analytics subscription, for the Robert Moses Niagara Power Project Power Vista Visitors Center (Niagara Visitors Center).

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.

Many of the former exhibits at the Niagara Visitors Center were no longer functional, displaying signs of wear, irrelevant to present-day topics and programs, and could not be easily updated and maintained. As this Visitors Center is open to the public, the exhibits needed to be upgraded to include present-day technologies and represent the Authority’s current programs and customers. Additionally, the Visitors Center is a significant component in fulfilling the Authority’s Federal Energy Regulatory Commission (‘FERC’) obligation to provide public recreational opportunities at its licensed hydroelectric power plants, included in the site’s FERC-approved Recreation Plan.

At their May 22, 2014 meeting, the Trustees approved the Capital Expenditure Authorization Request (‘CEAR’) for the Niagara Visitors Center Upgrade Project, estimated at \$8.664 million, and the award of a five-year contract to Hadley Exhibits to upgrade the displays and exhibits and replace the existing chair lift system with a new, modern elevator and Americans with Disabilities Act (‘ADA’) accessible ramp. In the fall of 2014, it was determined that additional funding would be required to implement the Authority’s enhanced vision for the upgrade of the Niagara Visitors Center. The scope-of-work was enhanced to include additional interactive and sophisticated displays and exhibits such as a Multiaction touch table, a simulator theater and numerous additional touch-screen interactive monitors; a retail space; and the addition of State Historic Preservation Office and Engineering required enhancements to the elevator and ADA ramp designs.

At their July 30, 2015 meeting, the Trustees approved increasing the capital expenditure authorization limit for the Niagara Visitors Center upgrade from the previously authorized amount of \$8.925 million to \$14.270 million.

The Trustees also approved an increase in the contract awarded to Hadley Exhibits from the previous amount of approximately \$9.0 million to \$11.6 million to fund this enhanced vision for the Niagara Visitors Center. The contract with Hadley includes an option for three years of maintenance. This maintenance was not included as part of the capital project.

DISCUSSION

In June 2016, the new Power Vista Visitors Center opened to rave reviews. Attendance increased 56% from July 2015 to July 2016 as the Niagara Visitors Center became one of the ‘must do’ tourist attractions in the region.

The enhanced visitors' center experience requires ongoing technical support for repair, operation and maintenance of the exhibits. It also requires IT infrastructure and information hosting that remains available for public use and for security reasons (critical infrastructure protection) remains separate from existing NYPA IT systems and networks. Operating data and guest personal data are hosted and accessed offsite through separate fiber and web connections.

As part of the operations, maintenance and repair agreement, Hadley Exhibits will make all necessary adjustments and repairs to keep the equipment in good operating condition (as designed). It shall also provide phone support and remote troubleshooting, via telephone, email or remote log-in, for hardware issues.

As part of the software service and support agreement, Hadley Exhibits will host and execute a custom proprietary back-end application that provides API endpoints for:

- Saving and retrieving data and media for content management of interactive exhibits;
- Saving and retrieving data and media that are associated with users via a unique identification string; and
- Saving and retrieving arbitrary analytics data.

Hadley's experience, safety performance record, resources, and capabilities are sufficient to perform this work. The company has performed satisfactorily on previous Authority projects. The previous contract for center upgrades forecasted the need of a three-year term for ongoing repair, operation and maintenance of exhibits which Hadley is uniquely qualified to provide. The company also meets or exceeds the 10% minority and 5% women-owned business enterprise goals set forth in the contract documents.

FISCAL INFORMATION

Payment associated with these contracts will be made from the Authority's annual Operations and Maintenance budget.

For repair, operation and maintenance of the exhibits, Hadley shall invoice NYPA upon the Effective Date and NYPA shall pay the amount of Eighty Seven Thousand four hundred twelve (\$87,412.00) for the first year and Ninety Nine Thousand and Four Hundred and Thirteen Dollars (\$99,413.00) for each of years two (2) and three (3) (total \$286,238). Travel costs for two (2) scheduled preventative maintenance trips are included in the fee (all 3 years). In addition, all other travel costs are billed at 1.15%. The costs do not include new or replacement parts, and any travel expenses except those noted above, which shall be invoiced, in addition to the above fee. Any additional or other charges shall be invoiced separately to NYPA.

For software service and support, content hosting, security and analytics subscription, Hadley shall invoice NYPA \$2,227.60 per month or \$80,193.60, the three-year total. The total for both agreements is \$366,431.60.

RECOMMENDATION

The Senior Vice President –Public and Regulatory Affairs, the Vice President – Project Management, the Vice President – Procurement, the Project Manager and the Regional Manager of Western NY recommend that the Trustees approve the contracts with Hadley Exhibits, Inc. of Buffalo, NY in an amount up to \$370,000 for exhibits and software upgrades at the Robert Moses Niagara Power Project Power Vista Visitors Center.

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 Trustees hereby approve three-year contracts for the operation, maintenance and repair of exhibits; and the software service and support, content hosting, security and analytics subscription expenditures, up to an amount of \$370,000, for the Robert Moses Niagara Power Project Power Vista Visitors Center (“Niagara Visitors Center”) Upgrade, as recommended in the foregoing report of the President and Chief Executive Officer;

Contractor

Contract Award

**Hadley Exhibits, Inc.
Buffalo, NY**

\$370,000

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

v. **Procurement (Services) Contract –
Transmission Life Extension and Modernization
Program – Tower Painting Project – Western
New York Region – 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 contract in the amount of \$5,181,043 to Public Utilities Maintenance Inc. (‘PUM’), of Queens Village, NY for Transmission Tower Painting in the Western New York Region.

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. In accordance with the Authority’s Expenditure Authorization Procedures (‘EAPs’) the Trustees’ approval is required for the award of non-personal services, construction, equipment purchase or non-procurement contracts in excess of \$3 million.

The Authority’s transmission assets require continued maintenance to extend the longevity of critical components, achieve compliance with regulatory requirements and maintain system reliability. Existing paint/coating conditions on steel transmission line towers in the Western Region warrant a new program of repainting/recoating to protect painted and galvanized steel surfaces to ensure continued reliability.

As part of this contract, 635 existing steel transmission towers in the Western NY Region (NR-02 and NS-01 circuit towers) will be painted over a period of three years. These towers span from Niagara to the Rochester area; there are approximately 2500 remaining towers in the West – East transmission corridor which will be painted after completion of the scope of this contract. Painting of transmission structures in the Northern NY Region was completed in 2015.

DISCUSSION

In response to the Authority’s request for proposal (‘RFP’) (Q16-6073SR) advertised in the New York State *Contract Reporter* on May 27, 2016, two (2) proposals were received on June 27, 2016. An RFP for this scope-of-work was previously issued in February 2016 (Q16-6023SR) in an effort to attract more bidders; however, the number of bids, and responsive bidders remained the same.

Bidder	Base Proposal	Evaluated Proposal
Public Utilities Maintenance, Inc. (Queens Village, NY)	\$ 4,999,843	\$ 5,181,043
Tower Maintenance Corporation (Roslyn, NY)	\$ 4,121,371	Disqualified

The Authority’s estimate for this project is \$4,687,750. The evaluated proposal price includes optional items totaling \$275,000 which will be exercised based on conditions at the towers following inspection. These items include dewatering tower foundations, replacement of tower signage, and removal of obstructions to provide access to tower foundations.

The proposals were reviewed by an Evaluation Committee consisting of staff from the Niagara Power Project, Transmission, Engineering, Procurement, Environment, Health, and Safety, and Project Management.

The proposals were evaluated for price, proposal completeness, schedule, warranty, and exceptions taken to the Bidding Documents, experience, quality control, safety, and environmental plans.

The proposal from PUM was found to be compliant with the requirements of the technical specification, drawings, and bid documents. The company will be able to meet the Authority's schedule and have demonstrated a robust Safety Program and history of safe execution of work.

Tower Maintenance Corporation ('TMC') met the requirements of the technical specification, drawings, and schedule, and also performed the tower painting work in the Northern NY Region. However, upon review of the May 16, 2016 Occupational Safety and Health Review Commission ('OSHRC') Report (Docket #13-0777), which indicated prior violations and fines related to the death of a TMC employee, and the injury of another, TMC was disqualified from further consideration.

FISCAL INFORMATION

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

RECOMMENDATION

The Senior Vice President and Chief Engineer – Operations Support Services, the Vice President – Project Management, the Vice President – Engineering, the Regional Manager – Western New York, the Vice President – Transmission, the Vice President – Procurement, and the Project Manager recommend that the Trustees approve the award of a three-year contract in the amount of \$5,181,043 to Public Utilities Maintenance Inc. ('PUM'), of Queens Village, NY for Transmission Tower Painting in the Western New York Region.

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 and the Authority's Expenditure Authorization Procedures, a three-year contract award in the amount of \$5,181,043 is hereby authorized for transmission tower painting in the Western New York Region as part of the Transmission Life Extension and Modernization Program, as recommended in the foregoing report of the President and Chief Executive Officer;

<u>Contractor</u>	<u>Contract Approval</u>
Public Utilities Maintenance Inc. Queens Village, NY (Q16-6073SR)	<u>\$5,181,043</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 and take any and all actions and execute and deliver any and all agreements, certificates and other documents to effectuate the foregoing resolution, subject to the approval of the form thereof by the Executive Vice President and General Counsel.

c. Non-Procurement Contracts

i. Non-Procurement Contract – NYISO Public Policy AC Transmission Proceeding – Authority Portion of Joint Proposal – Funding Approval

The President and Chief Executive Officer submitted the following report:

“SUMMARY

The Trustees are requested to approve funding in the amount of \$1.1 million for the Authority's share of expenses pursuant to a Memorandum of Understanding ('MOU') with North America Transmission ('NAT'). The MOU provides for the Authority and NAT to jointly submit proposals to increase transmission capacity in response to the New York Independent System Operator ('NYISO') Public Policy Transmission Needs Solicitation – The AC Proceeding. The NYISO announced that the awards will probably be made by the end of the first quarter of 2018.

BACKGROUND

In accordance with Section 2879 of the Public Authorities Law and the Authority's Guidelines for Procurement Contracts the Trustees' approval is required when the term of a non-procurement contract exceeds one year.

DISCUSSION

On August 1, 2014, NYISO initiated the first Public Policy Transmission Planning Process to solicit proposed transmission needs driven by Public Policy Requirements. On December 17, 2015, the New York Public Service Commission ('PSC') issued an Order identifying transmission needs associated with the Central East and UPNY/SENY Corridors.

On February 29, 2016, in accordance with the PSC Order, NYISO issued the AC Transmission Public Policy Transmission Needs Project Solicitation granting a 60-day period for developers to submit project proposals. This is a competitive process whereby developers submit proposed transmission solutions, construction schedules, cost estimates and engineering modeling and design information.

On March 16, 2016, the Authority executed an MOU with NAT to develop and submit proposals in response to the Solicitation. If any of the Authority/NAT proposals are accepted, the Authority, at its sole discretion, may elect to purchase an ownership share in the project(s) or operate and maintain the project(s).

NAT has assumed the lead role and is responsible for developing the proposals including engineering design and modeling, preparing a competitive cost estimate, construction schedule, filing all submittals and remitting all NYISO required deposits and fees. The Authority is providing technical assistance, comments, advice and participation in all meetings with the NYISO, PSC, regulatory agencies and other developers.

The Authority anticipates incurring expenses in support of the project for external engineering, legal, environmental and regulatory studies, NYISO fees and stakeholder outreach. These activities are necessary to further demonstrate the viability and constructability of the project(s) and in support of an ambitious construction schedule, an element the team considers essential to creating a competitive advantage.

In the event that the Authority/NAT is not awarded one or both segments of the project, NAT is responsible for filing a request for reimbursement from the NYISO of approved refundable pre-award costs and deposits. The Authority will receive one-third (33%) of all recovered costs and expenses.

FISCAL INFORMATION

Funding for these activities is included in the 2017 budget, pending approval, as other expenses. Funds for 2018, if applicable, will be included in the budget submittal for that year.

RECOMMENDATION

The Vice President – Technical Compliance and the Vice President – Procurement recommend the Trustees' approval of funds in the amount of \$1.1 million to continue the Authority's support of its activities with North America Transmission to become successful developers of the transmission upgrades solicited by the New York Independent System Operator ('NYISO') in its Public Policy Transmission Planning Process – The AC Proceeding.

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, approval is hereby granted for funding of the Authority's share of expenses and pre-award costs in accordance with the Memorandum of Understanding (“MOU”) between the Authority and North America Transmission signed on March 16, 2016, in the amount of \$1.1 million, 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 Request:

**i. Information Technology –
IT Cyber Security Initiatives –
Capital Expenditure Authorization**

The President and Chief Executive Officer submitted the following report:

“SUMMARY

The Trustees are requested to authorize capital expenditures in the amount of \$16,477,180 for the implementation of Information Technology’s (‘IT’) Cyber Security Initiatives as per the Authority’s Expenditure Authorization Procedures (‘EAPs’). These expenditures have been reviewed by Accounting and Budgets and included in the 2017 submitted Capital budget.

BACKGROUND

In accordance with the Authority’s Expenditure Authorization Procedures (‘EAPs’), Capital Expenditures in excess of \$3 million require the Trustees’ approval.

Each year, in concert with the Business Units, IT develops a list of initiatives designed to meet business needs taking advantage of the evolving technology. These specific efforts are being requested to fund a capital program called IT Cyber Security Initiatives. The budget was developed using a bottoms-up approach by the Chief Information officer (‘CIO’) and staff. This Capital Expenditure Authorization Request (‘CEAR’) represents the funding required to implement IT Cyber Security Initiatives throughout NYPA.

DISCUSSION

The IT Cyber Security Initiatives have been subdivided into five sub-projects, and will be a two-year undertaking. It represents the development and implementation of a variety of state-of-the-art Cyber Security solutions needed to service the security requirements of the NYPA business community at all sites, to address risks and meet increasing regulatory requirements.

1. Access Management \$ 2,121,060

This effort comprises the construction of a Security Access Management solution including identity and access management controls for managing NYPA employees’ and contractors’ logical and physical identities and access to NYPA’s physical locations and IT/OT systems. This effort will include implementation of new technology software and hardware platforms.

Currently, installed access management solutions will be integrated with the new platforms, as needed, if determined that they should remain, be extended, or otherwise be replaced with the new technologies.

The Access Management solution will enable management of NYPA users’ identities, access authorization, authentication, and accountability, and will reduce NYPA’s exposure to existing and future vulnerabilities and security risks.

2. Governance, Risk, Compliance (GRC) Management \$ 6,016,820

Structure and install NYPA’s Security Governance, Risk, and Compliance (‘GRC’) solution including:

- the on-site implementation of technologies to manage corporate IT and OT risks, regulatory compliance risk, and third-party risk;
- construction of enterprise artifacts tracking system to standardize enterprise solutions. Solutions will include acquiring new software technologies to manage workflows, and store compliance evidence; and
- provide integrated corporate metrics and reporting of GRC efforts.

This solution will reduce the exposure to vulnerabilities and security risks and help address mandatory compliance issues.

3. Infrastructure Security \$ 2,746,457

Install solutions to further secure NYPA's infrastructures against cyber threats and vulnerabilities. Infrastructure security solutions include acquiring and implementing integrated systems that have:

- cyber asset tracking and management tools;
- enterprise data protections, appliances, and solutions;
- security monitoring and management tools; and
- tools for securing mobile devices accessing NYPA IT assets and systems.

This initiative consists of development and implementation of new, replacement, and major upgrades to systems and equipment including server equipment, network systems, and backbone telecommunication at all facilities, to support the Authority's IT applications, and mitigate exposure to security risks.

4. Resilience \$ 2,994,291

Construct solutions to improve NYPA's resilience and response to cyber, IT, and physical security incidents to reduce risk and business impact of potential interruptions to business processes, key systems, or operations. Solutions include:

- additional backup systems;
- extended backup capacity; and
- coordinated response systems for security related cyber assets, key IT cyber systems, and key infrastructure.

This solution will reduce the impact of potential vulnerabilities and security risks across NYPA's physical systems and applications.

5. Threat and Vulnerability Incident Management \$ 2,598,552

Construct and integrate solutions for comprehensive threat and vulnerability management for cyber assets.

- Build a centralized deep visibility platform of NYPA's cyber infrastructure security event information inclusive of IT and OT.

- Implement centralized and coordinated cyber threat intelligence and communications monitoring systems.
- Implement centralized advanced security risk analytics system inclusive of insider threat warnings and a common operating risk view with drill-down.
- Implement Incident Command Response ('ICS') event viewer.

This solution will enable consistent, rapid engagement, and communication of security events, threats, and vulnerabilities to mitigate security risks more quickly.

This project is a multi-year effort that will begin in 2017 and targeted for completion in 2018. It will involve engineering design, new hardware and software, installation and testing. The major components of the funding are as follows:

• IT Cyber Security Procurement	\$ 12,994,042
• Internal NYPA Labor	\$ 2,698,510
• HQ Overhead	<u>\$ 784,628</u>
Total	<u>\$ 16,477,180</u>

FISCAL INFORMATION

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

RECOMMENDATION

The Chief Information Officer – Information Technology recommends that the Trustees approve the Capital Expenditure Request for \$16,477,180 for the IT Cyber Security Initiatives.

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

In response to a question from Chairman Koelmel, President Quiniones said cyber security is an evolving issue, not only for NYPA, but also for many utilities; NYPA is addressing that issue head-on. He then asked Mr. Lee to give a short summary of staff's request to the Board.

Mr. Lee said staff is requesting approval of approximately \$16 million to take the Authority's cyber security program to the next level in terms of increasing maturity to address emerging challenges and expanding its capabilities. The spending will cover the risks, as well as increase the Authority's capabilities from a threat and vulnerability vantage. The spending will also cover the costs of the latest tools available in terms of defending the Authority's networks, as well as the processes, procedures and maintaining its risk environment.

In response to further questioning from Chairman Koelmel, Mr. Lee said this request is intended to be more of a “catch up” to take the Authority up to a maturity level that is better than average. In subsequent years, there will be additional spending requests related to life cycle and for keeping abreast of risks that the Authority faces.

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

RESOLVED, That in accordance with the Authority's Expenditure Authorization Procedures, capital expenditures for the IT Cyber Security Initiatives are hereby approved as recommended in the foregoing report of the President and Chief Executive Officer, in the amount and for the purpose listed below:

<u>Capital</u>	<u>Expenditure Authorization</u>
IT Cyber Security Initiatives	<u>\$ 16,477,180</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 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.

e. Finance

**i. Funding Agreement for Final Design for the
Niagara Gorge Corridor Project – Authorization**

The President and Chief Executive Officer submitted the following report:

“SUMMARY

The Trustees are requested to authorize entering into a funding agreement of up to \$3.5 million for Final Engineering Design for Phase I of the Niagara Gorge Corridor (‘NGC’) Project extending from NYS Route 104 (Main Street) to Findlay Drive in Niagara Falls, NY.

Funding will be provided through an agreement with Niagara USA Development Corporation, a subsidiary of the Empire State Development Corporation.

BACKGROUND

In accordance with the provisions of the Niagara Redevelopment Act and as part of the Niagara Power Project construction, the New York Power Authority (‘NYPA’) built the Robert Moses Parkway (‘RMP’) from the North Grand Island Bridge to the International Bridge in the Town of Lewiston. During that time, the construction of the parkway was viewed as a necessary project by the people of the City of Niagara Falls and nearby communities to help transform the area into a tourist capital that emulated the Canadian side of the river. Jurisdiction over the roadway was originally held by New York State Office of Parks, Recreation and Historic Preservation (‘NYOPRHP’); however, since 1975, operations and maintenance of the RMP has been handled by the New York State Department of Transportation (‘NYSDOT’). NYPA retains ownership of the sections of the RMP that exist on NYPA-owned land. In 2016, the name of the RMP was changed to the Niagara Scenic Parkway (‘NSP’).

DISCUSSION

As originally conceived, the NSP was to provide a scenic and efficient route for vehicular travel between nearby parks, communities and attractions. Today, the needs and concerns of the region have changed significantly from the early 1960’s. The population has decreased nearly 50% since 1960. The original 4-lane limited access highway is underutilized. Economic development and support for the local business community are now near the top of the list of community concerns. Preservation and restoration of the upper rim of the Niagara Gorge, as well as unimpeded pedestrian/bicycle access to the Gorge rim from neighborhoods adjoining the NSP (which for safety reasons are fully cut off in the City of Niagara Falls and portions of Lewiston, except at a few pedestrian overpasses) are now considered just as important as, or more important than, the need to maintain an underutilized and oversized transportation system. In addition, the growth in cycling and walking has led to increased efforts to provide suitable and sustainable multimodal routes.

The project is officially designated as the Niagara Gorge Corridor (‘NGC Project’) (including Niagara Scenic Parkway and parallel roadways from Main Street in the City of Niagara Falls to Center Street in the Village of Lewiston), Niagara County. This project is primarily a highway modification project identified by NYSDOT Project Identification Number (‘PIN’) 5757.91.121.

The NGC Project aims to develop an appropriately scaled transportation network to link together existing and proposed roadways, attractions, overlooks, trails and cultural/historic sites in a more natural, park-like setting along the corridor while improving vehicle, pedestrian and bicycle access and safety features along the NGC. It addresses the future transportation needs of park visitors, commuters and people from the surrounding communities while improving the park environment and providing additional access to the Niagara Gorge from the adjacent communities.

The NGC Project also meets the Niagara Greenway Commission's vision to celebrate and interpret the Authority's unique, natural, cultural, recreational, and scenic and heritage resources in the NGC and provides access to, and connections between, these important resources while giving rise to economic opportunities for the region.

With significant stakeholder input and participation, NYSOPRHP, in partnership with NYSDOT, the City of Niagara Falls, and USA Niagara Development Corporation ('USAN'), and in cooperation with the Village of Lewiston, prepared a Final Scoping Report for the NGC Project.

Consensus stakeholder support exists for the removal of the NSP from NYS Route 104 (Main Street) to Findlay Drive in Niagara Falls, NY; landscape/habitat restoration of the Niagara Gorge rim landscape on land to be reclaimed from the Parkway removal; and reconstruction of Whirlpool Street, which directly adjoins the current alignment of Parkway, as a conventional, at-grade, landscaped street to provide all north-south access in this portion of the corridor.

In January 2014, NYPA's Trustees authorized a funding agreement with the USAN for preliminary engineering and environmental clearance for Phase I of the NGC Project extending from NYS Route 104 (Main Street) to Findlay Drive in Niagara Falls, NY.

Accordingly, the Trustees are now requested to approve a funding agreement of up to \$3.5 million for Final Engineering Design for Phase I of the NGC Project, extending from NYS Route 104 (Main Street) to Findlay Drive in Niagara Falls, NY. The funds provided will pay for, among other items, the final design for:

- Removal of the NSP (i.e., all vehicular lanes; lanes used for the former RMP and Trail; the Whirlpool Bridge Plaza overpass; and all other NSP interchange/accessory facilities from Main Street (NYS Route 104) to Findlay Drive;
- Full-depth reconstruction of Whirlpool Street from Main Street to Walnut Avenue and from Cedar Avenue to Findlay Drive as an at-grade, 30-MPH road to accommodate north-south vehicular/bus access, and removal of Whirlpool Street from Walnut Avenue to Cedar Avenue;
- Full-depth reconstruction of Third Street from Main Street to Cedar Avenue in a manner consistent with that of Whirlpool Street;
- Construction/reconstruction of selected segments of streets adjoining or connecting to Whirlpool and Third streets to facilitate a complete road network, including but not limited to: extending Walnut Street to the Niagara Gorge Discovery Center; reuse/reconstruction of a former entrance to the NSP as an entry drive for the Niagara Gorge Discovery Center; and repaving of an unimproved segment of Spring Street adjoining Whirlpool Street and Findlay Drive;
- Restoration of the landscape / habitat on lands reclaimed along the Niagara Gorge rim from the removal of the parkway with native species to the greatest extent practicable, and incorporation of sustainable design features including, but not limited to, passive storm water retention, bio-swales, etc.;
- Construction of a pedestrian / bicycle trail network along the Gorge rim, connecting to other trail systems and adjoining neighborhoods; and
- Incorporation of associated amenities and betterments associated with the above improvements.

FISCAL INFORMATION

The estimated cost is \$3.5 million for Final Engineering Design for Phase I of the NGC Project.

RECOMMENDATION

The Senior Vice President - Corporate and Public Affairs and the Vice President - Community and Government Relations recommend that the Trustees approve the funding agreement for the Niagara Gorge Corridor Project as described above.

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 Trustees hereby authorize entering into a funding agreement of up to \$3.5 million with the USA Niagara Development Corporation for final engineering design for Phase 1 of the Niagara Gorge Corridor Project 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.

ii. **Contribution of Funds to the State Treasury**

The President and Chief Executive Officer submitted the following report:

SUMMARY

The Trustees are requested to authorize the release of \$20 million in funds to the State's general fund as authorized by §18 of Part UU of Chapter 54 of the Laws of 2016 (Chapter 54 of the Laws of 2016).

BACKGROUND

The Authority is requested, from time to time, to make financial contributions and transfers of funds to the State or to otherwise provide financial support for various State programs. Any such contribution or transfer of funds must (1) be authorized by the law; (2) be approved by the Trustees 'as feasible and advisable;' and (3) satisfy the requirements of the Authority's General Resolution Authorizing Revenue Obligations dated February 24, 1998, as amended and supplemented ('Bond Resolution'). 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 payments or transfers.

The Bond Resolution's requirements to withdraw monies 'free and clear of the lien and pledge created by the [Bond] Resolution' are such that (a) 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.

Section 18 of Part UU of Chapter 54 of the Laws of 2016 which is part of the State's Enacted Budget for State fiscal year ('SFY') 2016-17 authorizes the Authority as deemed 'feasible and advisable by its trustees' to provide \$20 million in contributions to the State's general fund whereupon such funds 'will be utilized to support energy-related state activities.'

DISCUSSION

The low-cost power and other benefits the Authority makes available under its various programs are valuable economic development tools that the Authority desires to promote, and there exists significant amounts of unallocated power and other benefits available under these programs that can support economic development in the State. Accordingly, the Authority has an interest in promoting the effectiveness of energy-related initiatives of the state, thereby increasing the number and quality of businesses that apply for available benefits under the Authority's Programs.

In March of 2016, the Authority's Trustees approved the release of \$71 million in contributions, \$65 million to the Empire State Development Corporation as authorized by Chapter 60 of the Laws of 2015, and \$6 million to the State Treasury to the credit of the general fund as authorized by Chapter 20 of the Laws of 2015. The release of an additional \$20 million will total to \$91 million in contributions, \$90 million of which was included in the Authority's 2016 Operating Budget.

Staff has reviewed the effect of releasing \$20 million in State contributions at this time on the Authority's expected financial position and reserve requirements. In accordance with the Board's Policy Statement, staff also calculated the impact of this and previous release authorizations of \$90 million for 2016 Canal costs on the Authority's debt service coverage ratio and determined it would temporarily fall below the 2.0 reference point level using Net Cash from Operating Activities ending with the last calendar

quarter September 30, 2016. Based on the most recent November 30, 2016 Net Cash from Operating Activities and the Authority's Four Year Budget and Financial Plan, the 2.0 reference point level would be met for the period ending November 30, 2016 and in each year of the forecast period 2017-2020. Given the current financial condition of the Authority, its estimated future revenues, operating expenses, debt service and reserve requirements, staff is of the view that it will be feasible for the Authority to release \$20 million at this time.

FISCAL INFORMATION

Staff has determined that sufficient funds are available in the Operating Fund to transfer \$20 million in contributions at this time and that such Authority funds are not needed for any of the purposes specified in Section 503(1)(a)-(c) of the Authority's Bond Resolution. The transfer of \$20 million will total to \$91 million in contributions related to the Authority' 2016 calendar year, \$90 million of which was reflected in the Authority's 2016 Operating Budget approved by the Trustees at their December 17, 2015 meeting.

RECOMMENDATION

The Treasurer recommends that the Trustees affirm that the transfer of \$20 million in contributions is feasible and advisable and authorize such payment.

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

In response to a question from Chairman Koelmel, Mr. Lurie said staff's request represents a \$20 million voluntary contribution to the State that the Authority wants to make between now and the end of the year. He said it is part of what was previously authorized and represents payment that the Authority had budgeted to occur in January.

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

RESOLVED, That the Trustees hereby authorize the release of funds from the Operating Fund to the State's general fund in the amount of \$20 million as authorized by Chapter 54 of the Laws of 2016 as discussed in the foregoing report of the President and Chief Executive Officer; and be it further

RESOLVED, That the \$20 million to the State's general fund described in the foregoing resolution 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 such release is deemed feasible and advisable; and be it further

RESOLVED, That as a condition to making the payments specified in the foregoing resolution, 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.

f. Power Allocations

i. Proposed Neighboring States St. Lawrence Hydropower Contracts – Notice of Public Hearing

The President and Chief Executive Officer submitted the following report:

“SUMMARY

The Trustees are requested to approve an allotment of 4.25% of cost-based rate firm power and energy, subject to the 1 MW per-state minimum allocations, as well as cost-based rate non-firm energy from the St. Lawrence Project, currently corresponding to 34,500 kilowatts ('kW') of firm power and energy, to the six neighboring states (herein collectively referred to as 'the Bargaining Agents' or 'the Neighboring States') that are Parties to the Settlement Agreement. The Neighboring States and the amounts of firm power allocated to each are listed in Exhibit '4f i-A.'

The Trustees are also requested to authorize a public hearing, under Section 1009 of the Public Authorities Law, on the proposed contract form for the Neighboring States attached as Exhibit '4f i-B.'

BACKGROUND

Article 28 of the original Federal Power Commission ('FPC') license for the St. Lawrence/FDR Power Project ('St. Lawrence Project' or the 'Project') issued in 1953 required that the Authority 'make a reasonable portion of the power capacity and a reasonable portion of the power output available for use within the economic market area in neighboring states.' The Power Authority Act authorizes the Authority to sell a 'reasonable share' of Niagara Power Project and St. Lawrence Project power to Neighboring States.

Pursuant to the foregoing license condition, the Authority sold hydropower from the St. Lawrence Project since 1958 to Neighboring States. Initially, hydropower was sold only to Vermont and, subsequently, to Ohio and Pennsylvania. From 1985 to 2004, the Project's power was sold to seven Neighboring States (Connecticut, Massachusetts, New Jersey, Ohio, Pennsylvania, Rhode Island and Vermont).

On October 31, 2001, the Authority filed its relicensing application for the St. Lawrence Project with the Federal Energy Regulatory Commission ('FERC'), the successor agency to the FPC. In that relicensing application, the Authority proposed that the requirement to make a reasonable portion of the output of the Project available to Neighboring States be removed from the new license terms so that the 68 megawatts ('MW') allocated at that time could be reallocated within New York State. The Neighboring States intervened in the St. Lawrence relicensing proceeding to protest the proposed removal of the Neighboring States sales requirement. Among other objections raised by the seven states, the Commonwealth of Massachusetts took the position that they were entitled to 20% of the output of the St. Lawrence Project at cost-based rates for the entire license term and that they should have greater control over the operation of the Project.

On September 30, 2003, the Authority and the Bargaining Agents for the states of Connecticut, New Jersey, Ohio, Pennsylvania, Rhode Island and Vermont (the 'Settling States') filed a proposed settlement agreement with FERC concerning the sale of St. Lawrence Project power under a new license. Under the settlement, the Authority would make 4.25% of the Project's firm power and energy and 4.25% of the Project's non-firm energy available to the Settling States, with no state receiving less than 1 MW - approximately 34.5 MW. The settlement resolved all disputes concerning the amounts and terms of service for sale of St. Lawrence Project's power and energy to Neighboring State entities. Massachusetts declined to sign the settlement agreement.

On October 23, 2003, FERC issued a new St. Lawrence Project license to the Authority which, in accordance with the aforementioned settlement agreement, includes a license provision with the same allotment terms as the settlement. However, FERC also ordered that Massachusetts be allocated 4.8 MW (50% of its prior 9.6 MW allocation), in addition to the 34.5 MW allocated to the Settling States. This increased the allocations of St. Lawrence power to all seven Neighboring States to 39.3 MW. The Authority sought rehearing at FERC challenging that part of the October 23rd order to allocate the Project's power to Massachusetts. On June 4, 2004, FERC granted the Authority's rehearing request and denied Massachusetts's subsequent rehearing petitions. As a result of FERC's orders, only the Settling States received new allocations and contracts for the output of the St. Lawrence Project. The current contracts expire on April 30, 2017.

DISCUSSION

The proposed contracts with the Settling States implement the requirements of the St. Lawrence Project license and contain detailed principles governing the establishment of cost-based rates (*i.e.* the Authority's 'preference' rate) over the contract term. The proposed contracts would run for a term beginning on the later of May 1, 2017, or the date of execution by the Parties after the Governor's approval, and end on April 30, 2032. The allocation to each State from the total 34.5 MW St. Lawrence Project power allotment is determined by each Settling State's population based on the most recent United States Census, on a pro-rata basis, as provided for in the license.

The proposed contracts with the Settling States provide for the potential sale of Renewable Energy Credits or Environmental Attributes associated with the Settling States' St. Lawrence Project allotment. This would be the sale of a non-power and/or non-energy product. The megawatts associated with the allocations to the Settling States are not counted towards New York's Clean Energy Standard baseline, so any sale of Renewable Energy Credits or Environmental Attributes to a Settling State would not result in a double count of such credits or attributes.

The Authority is in the process of discussing the proposed hydropower sales contract with the six Settling States that are Parties to the current agreements and anticipates receiving approval of a contract substantially similar to the form attached as Exhibit '4f i-B.' Accordingly, the Trustees are requested to authorize a public hearing, pursuant to PAL §1009, on the contract form for the Neighboring States attached as Exhibit '4f i-B.'

As required by PAL §1009, when the Authority believes it has reached agreement with its prospective co-parties on contracts for the sale of cost-based rate firm power and energy, as well as cost-based rate non-firm energy from the St. Lawrence Project, 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. Authority staff will report to the Board of Trustees on the public hearing and the proposed contract form at a later time and make additional recommendations regarding the proposed contract.

Upon approval of the final proposed contracts by the Authority, the Authority must 'report' the proposed contracts, along with its recommendations and the public hearing records, to the Governor and other elected officials. Upon approval by the Governor, the Authority may execute the contracts.

The recommended allocations would be sold pursuant to the Authority's Service Tariffs Nos. SL-1 and SL-2 which apply to all St. Lawrence Project allocations of firm power and energy and non-firm energy, respectively, to the Neighboring States. In accordance with the contract and tariffs, transmission and delivery service to the border with each state would be arranged by NYPA over facilities under the control of the New York Independent System Operator.

Since the contract approval process under Section 1009 of the Public Authorities Law requires that the Trustees approve the proposed contracts, that the proposed contracts be the subject of a public

hearing, that they then be reconsidered by the Trustees and, if approved, then be sent to the Governor for his approval, service might not begin under the new agreements for up to two months after the April 30, 2017 expiration of the current agreements. Accordingly, staff will execute letter agreements with the Settling States to extend the current contract's terms on a month-to-month basis for up to three months until the new long-term St. Lawrence contracts are executed by the Parties. The form of the St. Lawrence Project contract is attached as Exhibit '4f i-B.'

FISCAL INFORMATION

The 34.5 MW of St. Lawrence Project power and energy that will continue to be sold to the Settling States under the proposed contracts will be sold at the same rates that currently apply to such sales. Thus, the proposed contracts through the sale of power and energy will have no revenue impact on the Authority. If there are any sales of Renewable Energy Credits or Environmental Attributes to the Settling States, then there would be a positive revenue impact on the Authority.

RECOMMENDATION

The Vice President - Marketing, recommends that the Trustees approve an allotment of 4.25% of cost-based rate firm power and energy, subject to the 1 MW per-state minimum allocations, as well as cost-based rate non-firm energy from the St. Lawrence Project, currently corresponding to 34,500 kilowatts ('kW') of firm power and energy to the six Neighboring States that are Parties to the Settlement Agreement, as further described herein and in Exhibit '4f i-A.'

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 an allotment of 4.25% of cost-based rate firm power and energy, subject to the 1 megawatt ("MW") per-state minimum allocations, as well as cost-based rate non-firm energy from the St. Lawrence Project, currently corresponding to 34,500 kilowatts ("kW") of firm power and energy to the six Neighboring States that are Parties to the St. Lawrence settlement agreement, as detailed in the foregoing report of the President and Chief Executive Officer and Exhibit "4f i-A" be and hereby is approved; and be it further

RESOLVED, That the Trustees hereby authorize a public hearing pursuant to Public Authorities Law ("PAL") §1009 on the terms of the proposed form of the hydropower sales contract for the sale of both firm power and energy and non-firm energy negotiated with the six Neighboring States (the "Contract"), the current form of which is attached as Exhibit "4f i-B," subject to rates previously approved by the Trustees; and be it further

RESOLVED, That the Corporate Secretary be, and hereby is, authorized to transmit a copy of the proposed 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 PAL §1009; and be it further

RESOLVED, That in connection with the proposed Contract, the Corporate Secretary be, and hereby is, authorized to arrange for the publication of a notice of public hearing in six newspapers throughout the State, in accordance with the provisions of PAL §1009; 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. **DISCUSSION AGENDA:**

a. **Strategic Initiatives**

i. **President and Chief Executive Officer – Report**

President Quiniones provided highlights of the Authority's performance for the month of May (Exhibit "5a i-A").

Performance Scorecard

Strategic Initiatives

President Quiniones said that the year 2016 has been a very important transitional year in the realization of NYPA's 2020 Strategic Plan. The Authority launched its six strategic initiatives two years ago. In 2015, the focus was on scoping, designing and project mobilization and, 2016 on execution and project delivery.

At the start of 2016, the Authority's six strategic initiative teams set out to complete 21 key strategic initiative milestones – very specific and discreet deliverables – for the digital transformation of NYPA. A number of sensors and smart devices are being installed in the Authority's power plants, transmission lines, substations, and customers' facilities to create digital representation of those assets so that the Authority can manage them more proactively and effectively. To date, 16 of those 21 milestones are completed; four will be completed by year-end and two, New York Manager and the Enterprise Search Solution project, will be carried over to the first quarter of next year.

New York Energy Manager - This is the Authority's digital service where sensors and smart devices are placed in customers' facilities, mainly, government buildings, to help optimize their use of energy and to implement Governor Cuomo's Build Smart New York initiative to reduce energy consumption 20 percent by 2020 in all state buildings and facilities. In order to place smart meters and data acquisition devices in the customers' facilities, the Authority has to use their local area networks or communication networks; the customers requested, and the Authority agreed to delay some of those installations until early next year.

Enterprise Search Solution Project - This is part of the Knowledge Management initiative and is a means of digitally capturing the Authority's institutional knowledge -- like a "Google" for NYPA. The Authority had to delay work on this initiative in order to address cyber security issues. In addition, this project was delayed in order to focus on IT Canal integration matters so that the Authority will be ready for the integration on January 1st.

There are no material consequences to the delay and carryover of these projects into next year.

In response to a question from Chairman Koelmel, President Quiniones said he has been working with Mr. Lee on the cyber security issues and the catch-up plan for these projects is that they will be completed in the first quarter of next year. He said the teams have been working very hard and have been advancing the strategic plan on schedule and on budget.

Canal Corporation Integration

The Authority is making progress in the Canal Corporation's ("Canal") integration. Canal employees are in the process of moving to the Authority's offices across the state starting in Albany. Staffing to support all Canal functions are in place, both internally and externally. The integration of the IT systems, especially the conversion of Canal's Oracle Peoplesoft into the Authority's SAP environment, a huge undertaking, is nearing completion. Payroll testing has been successfully completed and will go live before the January 1st legal transfer of Canal.

Transitional Services Agreement - There are discrete services that the Thruway will continue to provide to Canal and agreements for those services are in place.

Ms. Harriman added that one of the most significant Transitional Services Agreement (“TSAs”) is the agreement with respect to Canal Construction Management. There are a number of projects that are currently in the construction phase that were started while Canal was a part of the Thruway Authority; therefore, in order to preserve the continuity of the project, the Thruway Authority will keep responsibility for managing those construction projects.

In response to a question from Trustee McKibben, Ms. Harriman said that the Authority created a list of the construction projects that are underway and the timing for their completion. She said most of the projects on the list should be completed in three to six months. Long-term projects are nearing completion and should be completed within 12 months.

In response to a question from Vice Chair Nicandri, President Quiniones said all of the projects should be completed by the end of 2017.

In response to a question from Chairman Koelmel, Ms. Harriman said all agreements related to the change management process have to be approved by NYPA’s Board of Trustees. This will enable the Authority to have the appropriate oversight of those projects.

In response to comments from Chairman Koelmel, Ms. Harriman said that the next two weeks would be a marathon for staff working on the Canal integration. Working group teams have worked tirelessly and heroically to get the work done, and are well-positioned to deal with any unique challenges that may occur in the next two weeks. The Authority has the resources, knowledge and skillset to achieve a successful Day One Canal integration.

In response to further questioning from Chairman Koelmel, Ms. Harriman said the integration occurring during the non-navigational season is advantageous and the Authority will be well-positioned to serve the customers of the canal system seamlessly and efficiently during the 2017 navigation season.

In response to questioning from Trustee McKibben, Ms. Harriman said that, working with KPMG, internal and external resource lists by organization and functional areas were developed and used to track vacation schedules. Some employees were asked not to take vacation during the Christmas Holiday season because their physical presence was needed and others were asked to be “on call” for the next three weeks, and they have agreed to these requests. In addition, IT staff has established a command center in White Plains and Albany as they work on the cutovers for those critical systems.

In response to comments from Chairman Koelmel, President Quiniones said that part of the integration process has been focusing on Canal’s infrastructure, the 524-mile canal that needs to be operated and maintained. Therefore, the Authority’s engineers and Operations staff at Canal and the Thruway will be working closely on matters related to Canal’s infrastructure. The transfer of Canal to NYPA provides a unique opportunity to reimagine Canal’s asset in two ways: 1) NYPA’s expertise, especially related to engineering, project management, and water-based structures such as dams and spillways, which are transferable and will add value to Canal’s operation. The operation of Canal will be moved towards the way NYPA manages and maintains its assets across the state; this will be good for Canal, going forward; and 2) reimagining the business model of Canal Corporation. To that end, Brian Stratton of Canal and his team, along with a team from the Authority, will be looking at new business models for Canal.

He added that next year Canal will reach a significant milestone, the start of the bicentennial of the Erie Canal. NYPA will also be hosting the world’s Canals Conference in Syracuse in October 2017. At this conference, canal owners and operators around the world will be discussing issues about canals and their uses in various communities across the world. He said there are going to be challenges; however, he is confident that the collective team is ready to address any challenges, going forward.

In response to a question from Chairman Koelmel, President Quiniones said that the Authority has an organizational and governance plan in place. The Authority will continue to look at the mix of skillsets and the right levels of internal versus external resources available. The Authority has the right organization to run and operate the Canals effectively and efficiently.

In response to a question from Vice Chairman Nicandri, President Quiniones said that during the integration process the Authority worked very closely with Canal on the Authority's standards and controls. He said that when the Authority has full operational control and ownership of Canal, by working together and executing the agreed plan with Canal, in a short period of time, the culture and the way that the Authority does business will be adopted and embraced by the Canal Corporation.

In response to questioning from Chairman Koelmel, Mr. Lurie said that financially, the team has done a very good job of managing the transition costs, which, although still significant, are less than expected, manageable and within the context of the overall plan.

In response to further questioning from Chairman Koelmel, President Quiniones said that there will be no reduction in any of the services the Canal provides the current users of the canal system. It is anticipated that, over time, their experience will improve and the way the Authority manages and operates Canal will be the same standards that the Authority operates its power plants and transmission assets.

Chairman Koelmel expressed appreciation to all Authority staff involved in the integration process and the tremendous work efforts and better than expected outcomes get the organization ready to take on this important step, going forward.

b. Enterprise Risk Management

i. Chief Risk Officer – Report

Mr. Parija provided an update of the report to the Trustees. (Exhibit “5b i-A”)

Top Enterprise Risks Update

With regard to mitigating action plans, compared to last quarter, there has been a 14 percent increase in completed action plans. Enterprise Risk (“ER”) plans to conduct an annual, full-scale risk assessment in 2017 focusing on developing key risk indicators in order to track the movement of risks on a continuous basis. In addition, ER is working with the Canal staff on a preliminary risk assessment.

Corporate insurance. Working with the brokers and after extensive analysis, ER has renewed the Authority’s cyber security insurance policy. Premiums did not increase; however, the coverage increased to include Canal and PCA compliance. ER is also in the process of getting a general liability policy for Canal. This was a difficult undertaking since there is no US market for this type of policy; the Authority had to procure one from London and was able to place the policy at a reasonable price.

Canal Property. The Authority has decided to self-insure the Canal’s property since it is comfortable that it can hold that risk.

In response to a question from Vice Chairman Nicandri, Mr. Parija said the Authority is obtaining the Canal liability insurance and insuring the property. In response to further questioning from Vice Chairman Nicandri, Mr. Parija said the Canal insurance coverage is an added expense for the operation of the Canal Corporation.

Operational Risk Analytics. ER worked closely with the Commercial Operations team to develop a multi-year hedging strategy for the Authority’s commodity portfolio. ER is in the process of implementing a Commodity Risk management solution with the assistance of teams from IT, Commercial Operations and Finance.

Business Resiliency. ER has been working with Operations on governance functions. An “active shooter” drill was initiated at the Niagara Project and one is being planned for White Plains. ER is also working on revamping NYPA’s business continuity plans by the end of 2017. ER’s goal is to provide a risk framework process and promote transparency at NYPA.

Key Risk Indicators

Highlights of the three critical risk indicators are as follows:

- 2017 Energy Pricing. The Authority continues to see energy prices trending downward; however, energy prices should go up by 2021.
- Hydro Volume Forecast. Hydro volume has been more volatile than expected; however, going forward, the Authority expects an increase in the water levels in Lake Erie in the 2018-2020 period.
- Critical Maintenance Hours. There has been a favorable shift in the number of hours spent to maintain the Authority’s critical assets.

In response to a question from Vice Chairman Nicandri, Mr. Parija said the shift in the number of hours spent to maintain the Authority’s critical assets is due, in part, to the Authority’s capital investments in its assets and the life extension programs, and its ability to better predict outages and prevent them.

Mr. Parija continued that hydro volume is a big risk for the Authority; therefore, ER and the Commercial Operations teams are conducting joint analysis on this risk. The products that are now available in the market versus the risks that the Authority is quantifying are very expensive, so the team will continue to work on the analysis until they can identify products that are reasonably priced.

In response to a question from Chairman Koelmel, Mr. Parija said an example of a relevant product would be insurance, which could be linked to hydro flows or delivery products such as swaps and other kinds of structure product, depending on the risk profile, with different triggers for the payout. Staff is working on a very detailed analysis of the different products that are available with a payoff chart.

Responding to further questioning from Chairman Koelmel, Mr. Parija said he started looking at products about ten years ago, but capacity was very low at that time. Today, there are many market interests, but the prices are too high for what is being offered. However, there are opportunities to customize a product that the Authority will be able to use.

In response to a question from Vice Chairman Nicandri, Mr. Lurie said there have been weather insurance products and providers for those products for a couple of decades. For NYPA, the product would have to be for flows through the river as opposed to rainfall.

In response to a question from Chairman Koelmel, Mr. Parija said, from a risk management standpoint, he would grade the Authority very highly because it has made significant progress from eighteen months ago when he started. He said the Board and executive management are very committed and very highly engaged in the risk management process and that goes a long way in terms of setting the tone for managing risks.

c. **Operations**

i. **Utility Operations Report**

Mr. Joseph Kessler provided highlights of the report to the Trustees (Exhibit "5c i-A").

Performance Measures

Generation Market Readiness

Year-to-date Generation Market Readiness factor was at 99.76%, which is above the annual target of 99.40%.

Transmission reliability

Year-to-date, transmission reliability is 94.12% which is below the target of 95.75%.

Y49 cable

Operations continues to take a comprehensive view of the Y49 Cable failure because of the design faults with a view to recommend corrective options to Authority management the first quarter of next year.

Environmental Incidents

Safety

The Year-to-Date DART (Days Away, Restricted or Transferred) rate was 0.84 which did not meet the target of 0.78. This was below the target because of minor incidents that were reportable.

In response to a question from Chairman Koelmel, Mr. Kessler said Operations did some realignment of staff recently, and, to date is in a good position, as far as succession planning, developing, and having the right people in place for the projects ahead. Because of the realignment, Operations is well- positioned with the proper staff and skillset to take on the additional responsibility with the Canal Corporation integration and the technical aspects of the Authority's 2020 vision. There are going to be changes in Operations in the next couple of quarters; however, they are trending in the right direction.

In response to further questioning from Chairman Koelmel, Mr. Kessler said Operations have a number of contingencies in place for the Canal integration with NYPA. Operations will continue to emphasize operational effectiveness and employee health and safety and public safety, primarily, and they have contracts in place for those responsibilities.

ii. **Commercial Operations Report**

Ms. Jill Anderson provided highlights of the report to the Trustees (Exhibit "5c ii-A").

Wholesale

- Market revenues continue to trend below forecast due to continued low natural gas prices which set the energy price;
- The energy price is about 30% lower for the month of October 2016 compared to October 2015;
- These lower market prices result in lower market revenue for NYPA, approximately 12% through the end of October 2016 compared to budget.

Through its strategies in trading and marketing, the Authority is generating revenue through ancillary services and other products.

On the upside, NYPA is purchasing fuel at prices lower than budget, approximately \$60 million YTD.

The Authority has been working on a multi-year hedging strategy. The hedging strategy that was approved last year has helped with some of the revenues. Even though the projection is downward, it is going down further than staff had been able to lock in last year.

Economic Development

- Western NY and Eastern/Central NY transmission development projects continue to progress through the competitive processes being run by the New York Independent System Operator, representing new revenue generating opportunities if NYPA is successful;
- NYPA's economic development programs are responsible for nearly 400,000 jobs and \$33 Billion of capital committed, including through the Recharge New York Program.

The economic development programs continue to be strong.

In response to a question from Vice Chairman Nicandri, Ms. Anderson said several coal plants have been retired over the past two years and that created an issue on the transmission system. The Authority is proposing a brand new 345 kV transmission line in Western New York. This project is designed to change and reconfigure the transmission system in order to alleviate those problems.

Customer Energy Solutions

- The Authority is on target to achieve its capital investment plan of \$141 million, and continue to progress with its new products and initiatives, including the New York Energy Manager, which is on target with investing and connecting the number of buildings projected this year; and K-Solar the Authority's program for installing solar panels on schools buildings. The first K-Solar project has been completed and the Authority expects several more projects in Westchester to be completed year.

In response to a question from Chairman Koelmel, Ms. Anderson said the Business Plan for the Customer Energy Solutions initiative was recently modified and approved by President Quiniones. Based on the Plan, instead of looking at developing new products and services over a wide breadth, staff will be focusing on where the Authority can add value, today, and on the core customers where there is potential for business with those customers.

December 15, 2016

In response to a question from Vice Chairman Nicandri, Ms. Anderson said the Authority have commitments for projects up to 2019. The Authority has a growth plan to make the Customer Energy Solutions business positive; by the end of 2018, the Authority will break-even with this business.

iii. **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 iii-A' in the amounts indicated on Exhibit '5c iii-A';
2. award allocations of RNY Power available for 'expansion' purposes to the businesses listed in Exhibit '5c iii-B' in the amounts indicated on Exhibit '5c iii-B'; and
3. award allocations of RNY Power available for eligible small businesses and not-for-profit corporations to the entities listed in Exhibit '5c iii-C' in the amounts indicated on Exhibit '5c iii-C'.

These actions have been recommended by the Economic Development Power Allocation Board ('EDPAB') at its December 12, 2016 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 seven 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’):

- ‘(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. Evaluations also considered scores provided by the relevant Regional Economic Development Council under the third and eighth criteria.

In arriving at recommendations for RNY Power 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 fifteen prior occasions spanning from April 2012 through July 2016. Of the 200 MW block of RNY Power made available pursuant to Chapter 60 for business 'expansion' purposes, 101.3 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, 11.0 MW remain unallocated. Of the remaining RNY Power made available pursuant to Chapter 60, 50.1 MW remain unallocated.

These figures reflect Trustee actions on RNY Power applications taken prior to any actions the Trustees take today.

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. Consistent with the evaluation process as described above, EDPAB recommended, at its December 12, 2016 meeting, that RNY Power retention allocations be awarded to the businesses listed in Exhibit '5c iii-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 iii-A' are each recommended for a term of seven years unless otherwise indicated. An allocation recommended by EDPAB qualifies the subject applicant to enter into a contract with the Authority for the purchase of the RNY Power. The Authority's standard RNY Power contract template, approved by the Trustees at their March 27, 2012 meeting, contains provisions addressing such things as 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 mutually agreed-upon commitments, relating to, among other things, employment levels, power utilization, and capital investments. In addition, there is a requirement that a recipient of an allocation perform an energy efficiency audit at its facility not less than once during the first five years of the term of the allocation.

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 which request allocations 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. These applications sought a RNY Power allocation for expansion only, in the case

of a new business or facility. EDPAB recommended, at its December 12, 2016 meeting, that RNY Power expansion-based allocations be made to the businesses listed in Exhibit '5c iii-B.' Each such allocation would be for a term of seven 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 iii-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 iii-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 iii-B.' The contracts for these allocations would also contain the standard provisions previously summarized in the last paragraph of Section 1 above.

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

In addition, the Trustees are asked to address applications submitted via the CFA process for RNY Power for eligible small businesses and 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 12, 2016 meeting, that RNY Power allocations be awarded to the small businesses and not-for-profit applicants listed in Exhibit '5c iii-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 iii-C' in exchange for the recommended RNY Power allocations as described in Exhibit '5c iii-C.' The RNY Power allocations identified in Exhibit '5c iii-C' are recommended for a term of seven years except as otherwise indicated. The sale contract would contain the types of standard contract provisions summarized in Section 1 above.

4. EDPAB Ineligibility Determinations – Informational Item

At its meeting on December 12, 2016, EDPAB determined that the applicants listed on Exhibit '5c iii-D' are not eligible for RNY Power for the reasons explained in Exhibit '5c iii-D.' No action by the Trustees is required on these applications.

5. EDPAB – Applicants Not Recommended – Informational Item

At its meeting on December 12, 2016, EDPAB determined to not recommend the applicants listed on Exhibit '5c iii-E' for a RNY Power allocation for the reasons specified on Exhibit '5c iii-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 12, 2016, EDPAB terminated the application review process for the applicants listed on Exhibit '5c iii-F' for the reasons listed on Exhibit '5c iii-F.' No action by the Trustees is required on this matter. In the past, some applicants in these circumstances have decided to refile and advance more complete applications for RNY Power.

RECOMMENDATION

The Manager - Business Power Allocations and Compliance recommends that the Trustees: (1) award the allocations of RNY Power for retention purposes to the businesses listed in Exhibit '5c iii-A' as indicated therein; (2) award the allocations of RNY Power for expansion purposes to the businesses listed in Exhibit '5c iii-B' as indicated therein; and (3) award the allocations of RNY Power for the small business and not-for-profit applicants identified in Exhibit '5c iii-C' for both retention and expansion purposes as indicated therein.

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.

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

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

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

NOW THEREFORE BE IT RESOLVED, That, upon considering the foregoing as indicated in the report of the President and Chief Executive Officer and the accompanying exhibits, the Trustees hereby award allocations of RNY Power for retention purposes to the applicants listed on Exhibit “5c iii-A” in the amounts indicated; and be it further

RESOLVED, That upon considering the foregoing as indicated in the report of the President and Chief Executive Officer and the accompanying exhibits, the Trustees hereby award the allocations of RNY Power for expansion purposes to the applicants listed on Exhibit “5c iii-B” in the amounts indicated; and be it further

RESOLVED, That upon considering the foregoing as indicated in the report of the President and Chief Executive Officer and the accompanying exhibits, the Trustees hereby award the allocations of RNY Power for the small businesses and not-for-profit applicants listed on Exhibit “5c iii-C” in the amounts indicated; 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

December 15, 2016

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. Award of Fund Benefits from the Western New York Economic Development Fund Recommended 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 accept the recommendations of the Western New York Power Proceeds Allocation Board (the ‘Allocation Board’ or ‘WNYPPAB’) and make awards of Fund Benefits from the Western New York Economic Development Fund to the eligible applicants listed in Exhibit ‘5c iv-A,’ in the amounts indicated therein, as discussed in more detail below, and in Exhibits ‘5c iv-C-1,’ ‘5c iv-C-2’ and ‘5c iv-C-3’ and 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 iv-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.

The Allocation Board also designated the Western New York Regional Director of the Empire State Development Corporation ('ESD') to be its designee ('Designee') to act on its behalf on all administrative matters. Among other things, the Designee was authorized to preform analyses of the applications for Fund Benefits and make recommendations to the Allocation Board on the applications.

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 2017 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 the Western New York Empire State Development regional office.

DISCUSSION

At its November 14, 2016 meeting, the Allocation Board considered applications from: (1) 43N, LLC ('43N') seeking \$2,000,000 in Fund Benefits; (2) PostProcess Technologies, LLC ('PostProcess') seeking \$120,500; and (3) CL New Co., Inc. dba Campus Labs ('Campus Labs') seeking \$400,000.

Allocation Board's staff analyzed the applications and made recommendations to the Allocation Board based on eligibility requirements and Program Criteria. Copies of the recommendation memoranda provided to the Allocation Board for 43N, PostProcess and Campus Labs are attached as Exhibits '5c iv-C-1,' '5c iv-C-2' and '5c iv-C-3,' respectively. The applications have also been made available to the Trustees for review.

Based on information provided in the applications before the Trustees, the proposed projects currently before the Trustees would create or retain approximately 197 jobs in Western New York. The total to be expended on the proposed projects is expected to be approximately \$20 million.

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

If these applicants receive Fund Benefit awards, with the Trustees' authorization it is anticipated that Authority staff, in consultation with ESD, will negotiate final terms and conditions with the applicants after receipt of more detailed information concerning the projects 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 relating to, among other things, employment levels and/or project element due dates.

RECOMMENDATION

The Vice President – Marketing recommends that:

- (1) the Trustees accept the recommendations of the Western New York Power Proceeds Allocation Board and make awards of Fund Benefits to the applicants in the amounts identified in Exhibit '5c iv-A,' conditioned upon an agreement to be negotiated with each applicant on the final terms and conditions that would be applicable to the awards 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 Acting Senior Vice President – Economic Development and Energy Efficiency, 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 be authorized to consult with ESD concerning the foregoing; and
- (3) the Acting Senior Vice President – Economic Development and Energy Efficiency, or such official's designee, be authorized to execute on behalf of the Authority an Award Contract for each award listed on Exhibit '5c iv-A' subject to the forgoing conditions.

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

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

NOW THEREFORE BE IT RESOLVED, That the Trustees hereby accept the recommendations of the Allocation Board and authorizes awards of Fund Benefits to the applicants listed in Exhibit "5c iv-A" 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 each applicant on the final terms and conditions that would be applicable to the awards and set forth in written award contracts ("Award Contracts") 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 Acting Senior Vice President – Economic Development and Energy Efficiency, or such official's designee, is authorized to negotiate with the applicants concerning such final terms and conditions that will be applicable to the awards, and is authorized to consult with Empire State Development Corporation ("ESD") concerning the foregoing; and be it further

RESOLVED, That the Acting Senior Vice President – Economic Development and Energy Efficiency, or such official's designee, is authorized to execute on behalf of the Authority an Award Contract for each of the awards listed on Exhibit "5c iv-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.

d. Finance

i. 2017 Budget and Filing of the 2017-2020 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 2017 Budget for the Power Authority, specifically including the expenditures for the (i) 2017 Operations and Maintenance ('O&M') Budget (attached as Exhibit '5d i-A'), (ii) 2017 Capital Budget (attached as Exhibit '5d i-B'), and (iii) 2017 Energy Services Budget (attached as Exhibit '5d i-C') (collectively, the '2017 Power Authority Budgets'). The 2017 Power Authority Budgets set forth the expected revenues and expenses of the Authority and include the recommended expenditures in the following amounts:

<u>2017 Power Authority Budgets</u>	<u>(\$ million)</u>
O&M	\$ 475.2
Capital	\$ 258.9
Energy Services	\$ 208.5

In accordance with regulations of the Office of the State Comptroller ('OSC'), the Trustees are requested to approve the 2017-2020 Four-Year Budget and Financial Plan attached as Exhibit '5d i-D' (in the form approved, the 'Approved 2017-2020 Four-Year Budget and Financial Plan') and authorize: (i) submitting the Approved 2017-2020 Four-Year Budget and Financial Plan to OSC, (ii) posting the Approved 2017-2020 Four-Year Budget and Financial Plan on the Authority's website, and (iii) making the Approved 2017-2020 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.

Legislation was enacted on April 4, 2016 which provides for the transfer of the New York State Canal Corporation (the 'Canal Corporation'), and responsibility for certain management responsibilities regarding the New York State Canal System, from the New York State Thruway Authority to the Authority, effective January 1, 2017. The 2017 Power Authority Budgets do not include budget information for the Canal Corporation. Staff of the Authority and the New York State Thruway Authority have prepared a separate 2017 Canal Corporation budget (the 'Preliminary 2017 Canal Corporation Budget'). The Preliminary 2017 Canal Corporation Budget will be submitted to the Canal Corporation's Board of Trustees in January 2017 for review and approval. The 2017 Power Authority Budget will be presented to the Trustees in January 2017 to be amended to include the approved budget for the Canal Corporation.

Assumptions that were used by staff to prepare the 2017 Preliminary Canal Corporation Budget, and for forward periods, have been incorporated in the 2017-2020 Four-Year Budget and Financial Plan.

The 2017 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.

In approving the 2017 Power Authority Budgets, the Trustees will be authorizing spending for 2017 operations, spending for capital projects, and spending for general plant purchases of \$750,000 or less. The 2017 Power Authority Budgets includes requests for 60 new positions (20 positions pooled and funded in a cost center under the Executive Office, 15 positions with no funding and 25 positions embedded in specific departments and funded accordingly).

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, capital projects of \$3 million or less, or an increase in spending of no more than \$1 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 2017-2020 Four-Year Budget and Financial Plan has been prepared in accordance with these regulations.

DISCUSSION

2017 Power Authority O&M Budget

The 2017 O&M Budget of \$475.2 million reflects a continued concentration on the effective operation and maintenance of the Authority's critical investments in New York State's electric infrastructure in addition to the continued support of other strategic investments.

The 2017 O&M Budget for Operations provides \$240.5 million for baseline, or recurring, work. In addition to the baseline work, scheduled maintenance outages at the 500 MW plant and the Small Clean Power Plants (totaling \$14.0 million), and planned enhancements in non-recurring maintenance work at the operating facilities (totaling \$51.4 million), are designed to support high reliability goals. Some of the major non-recurring projects include: Marcy Auto Transformer Reactor Refurbishment (\$4.9 Million), Niagara Region Tower Painting (\$4.8 Million), Massena Reactors Refurbishment (\$4.7 million), Crescent Tainter Gate Painting & Concrete Repair (\$2.8 million), St. Lawrence Ice Sluice Gate Repairs (\$2.5 Million), Robert Moses Headgate Refurbishment (\$2.4 Million), and Robert Moses Assembly Bay Floor Repair (\$3.1 Million).

The Astoria Energy II Budget totals \$28.2 million and 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.

2017 Power Authority Capital Budget

The 2017 Capital Budget totals \$258.9 million, a decrease of \$36.6 million from the 2016 Budget. Of this amount, \$178.8 million – or 69.1% 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 2017 include the Lewiston Pump Generation Plant Life Extension and Modernization ('LEM') (\$45.6 million); the PV-20 Submarine Cable Replacement (\$18.8 million); the IT Cyber Security Initiative (\$12.4 million); the Niagara Transmission Life Extension and Modernization ('LEM') (\$11.8 million); the Information and Technology Initiatives project (\$11.5 million); and the St. Lawrence Breaker and Relay Program (\$9.3 million). Other significant capital projects

include the Implementation of CIP Version 5 standard requirements (\$8.5 million); the St. Lawrence GSU Transformer Replacement (\$7.3 million); and the Smart G&T Communications Backbone (\$6.6 million).

2017 Energy Services Budget

The 2017 Energy Services Budget totals \$208.5 million, an increase of \$25.4 million from the 2016 Energy Services Budget. These expenditures will be subsequently recovered over time from the benefiting customers. The 2017 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.

2017-2020 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 Web site.

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 2017-2020 Four-Year Budget and Financial Plan is based on (a) the 2017 Power Authority Budgets being brought to the Board for approval at this time and (b) staff's assumptions from the Preliminary 2017 Canal Corporation Budget. The remaining three years are indicative forecasts.

FISCAL INFORMATION

Payment of O&M expenses will be made from the Operating Fund. 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 \$258.9 million from the Operating Fund will be transferred to the Capital Fund for capital expenditures, subject to compliance with the General Resolution Authorizing Revenue Obligations, as amended and supplemented. The 2017 Operating Budget shows adequate earnings levels so that the Authority may maintain its financial goals for cash flow and reserve requirements.

The 2017-2020 Four-Year Budget and Financial Plan's net income estimates for each of the years 2018 through 2020 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 2017 Budget for the Power Authority, specifically including the expenditures for the (i) 2017 Operations and Maintenance Budget, (ii) 2017 Capital Budget, and (iii) 2017 Energy Services Budget, each as discussed herein.

In connection with the 2017 Capital Budget, the Chief Financial Officer recommends the Trustees authorize the transfer of up to \$258.9 million from the Operating Fund to the Capital Fund, subject to compliance with the General Resolution Authorizing Revenue Obligations, as amended and supplemented.

The Chief Financial Officer further recommends the Trustees (1) approve the 2017-2020 Four-Year Budget and Financial Plan, and (2) authorize (i) submitting the Approved 2017-2020 Four-Year Budget and Financial Plan to the OSC in the prescribed format, (ii) posting the Approved 2017-2020 Four-Year Budget and Financial Plan on the Authority's Web site, and (iii) making the Approved 2017-2020 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 a resolution in the form of the attached draft resolution."

Mr. Robert Lurie provided highlights of the Authority's 2016 Financial Results; the 2017 Budget; and the 2017-2020 Financial Plan to the Trustees. He said financially, the Authority's Financial Plan is very sound and will help to drive the achievement of the goals of its Strategic Plan, while incorporating its new Business Unit, the Canal Corporation, in a way that will enable the Authority to be good stewards for the canal system for the 21st century.

He said the Plan was validated yesterday by Moody's Investors Service which announced that they had affirmed NYPA's double Aa1 credit rating among the highest of public utilities in the United States. This is a strong vote of confidence for the prudent management of the Authority's assets by the Board and staff over a long period and expresses confidence in the Authority's ability to manage both the expected and unexpected changes that may occur.

2016 Projected Year-End Net Income

The Authority's budget for the year 2016 was \$51 million of Net Income. That budget was prepared and approved in December of 2015, before the Canal transfer legislation was passed and utilized conservative forecasts for the variables that most affect the Authority's earning year-to-year; energy prices, capacity prices and hydro volumes. The Authority is now expecting a year-end total negative variance of \$102 million from the budget, which translates to a \$51 million loss this year, which is due to two main factors:

1) Energy prices in the market have dropped beyond the Authority's conservative forecast and have resulted in it receiving \$46 million less in gross margins than expected, this after the offsetting effects of the hedging program; and

2) The Canal transfer that occurred after the budget was prepared. That transfer is going to have some temporary costs that are typical for any asset or company acquisition. Pursuant to the Canal transfer legislation, the Authority is reimbursing the Thruway Authority for its costs of running the Canal system for the last nine months of 2016. Those costs are expected to total about \$60 million and include both their operating and capital costs incurred by the Thruway Authority and are reflected as operating expenses on the Authority's books since the Authority will not own the assets until January 1. In addition, integration costs, typical costs of moving an operation from one company to another, such as moving the systems, facilities and staff are expected to be about \$16 million in 2016 and are temporary costs.

The state agreed to offset NYPA's cost of taking responsibility for the canal system by eliminating NYPA's state voluntary contributions and have done so beginning on the date of the transfer legislation in April; this resulted in a \$20 positive variance to the budget for 2016. The Authority made a \$71 million contribution to the state prior to the Canal legislation on April 1; this resulted in a temporary double entry in the Authority's books from the state contribution made earlier and the temporary Canal costs. The effect will be eliminated when the Authority assumes operation the Canal Corporation on January 1. Moody's understood that this 2016 result is a one-time event and that the Authority's normal ongoing financial picture is still very strong.

In response to a question from Chairman Koelmel, Mr. Lurie said that it is critical to the Authority's relationship with the rating agencies that it be transparent and open with them; therefore, the net impact of the Canal Corporation integration was explained to them in depth.

In response to further questioning from Chairman Koelmel, Mr. Lurie said that when preparing the budget, Authority staff makes conservative forecasts for market prices; the prices dropped by even more than the conservative forecast. The market forecast is expecting prices to stay at these historic low levels for the near future.

In response to still further questioning from Chairman Koelmel, Mr. Lurie agreed that the impact of the integration was as expected and staff did an excellent job of reducing the transition costs to the maximum degree possible and as efficient as possible; the costs, although significant, were actually lower than expected at the onset of the transaction.

NYPA Objectives achieved through 2017-2020 Financial Plan

NYPA prepares its Financial Plan to achieve several objectives:

- *Maintain NYPA's economic development programs at historic levels;*
- *Fund NYPA 2020: NYPA's strategic plan to modernize the electric grid and accelerate New York State's transition to clean energy;*
- *Protect low-cost access to debt markets through strong debt service coverage, substantial liquidity and a conservative capital structure;*
- *Reduce merchant power risk by using a prudent hedging strategy;*
- *Continue improving operational efficiencies;*
- *Employ risk-based (i.e. conservative) financial planning methods.*

In response to a question from Vice Chairman Nicandri, Mr. Lurie said the budget targets are net of the Authority's funding before it took over the Canal Corporation operations. The Authority will be setting metrics that are applicable to each business unit. And all of those metrics will be set in such a way as to enable the Authority achieve the numbers budgeted for each Business Unit.

Challenges and Opportunities Going Forward

- *Low Wholesale Energy Prices, Variable Water Flows and Weak Electricity Demand;*
- *Potential new incremental cost from the "Regional Transmission Expansion Plan" (RTEP) process for the HTP Transmission Line in the PJM Regional Transmission Organization;*
- *Expiration of the Entergy-NYPA Revenue Sharing Contract related to the sale of Indian Point 3;*

- *Accounting Treatment of the Removal & Reconfiguration Cost of the Robert Moses Parkway in Western NY in 2018-2019;*
- *Timing and source of the recovery of Zero Emission Credits (ZECs) from NYPA customers under the State's Clean Energy Standard;*
- *Costs relating to assumption of responsibility for the NYS Canal Corporation starting in January 2017, and reimbursement costs in 2016.*

Canal Corporation Forecast

Unlike in 2016, for the period 2018 - 2020 the results are expected to be cash flow neutral. When the Authority actually starts operating the Canal Corporation, it expects the recurring operating costs to start at about \$73 million and decline over time as the Authority attains operating efficiencies from running the Canals differently in the future.

The Authority will incur some initial costs in 2017 related to improvements necessary for the safety and security of the canal system. The Authority will also incur implementation costs for transferring Canal under NYPA operation that will continue into 2017; capital costs for implementation of the IT systems; and ongoing Capital costs. Total expenditures projected for the operation of Canal is \$145 million.

In response to a question from Trustee McKibben, Ms. Harriman said because of timing and deferment issues, some implementation costs had to be moved from the 2016 budget to the 2017 budget.

Responding to further questioning from Trustee McKibben, Ms. Harriman said some of the implementation work was moved to Day Two instead of Day One. For example, the flood warning system, among others, which is an implementation cost, will be realized in 2017; this means that the accounting of those transaction costs will not be in effect until 2017.

Chairman Koelmel thanked all Authority staff who worked on the Canal Corporation integration. He said he feels comfortable about the forward-looking view of the integration and look forward to the opportunities that will enable the Authority to continue with this critically important work and the mission of NYPA.

Mr. Lurie said staff is looking forward to working with the Mr. Brian Stratton and his team at the Canal Corporation to reimagine the system for the 21st century; there are opportunities for efficiencies in the canal system that the Authority will be able to find.

In response to a question from Vice Chairman Nicandri, Ms. Harriman said the Authority is not planning to modify the revenue forecast that has been provided to the Canal Corporation, historically. The Authority will look for opportunities to increase those revenues as it begins to understand the asset and its functional benefit to the communities. Some efficiency may be assumed as operating costs but can also be revenue generators which drive down operating costs.

Economic Value Added

The Authority's target for Economic Value Added is zero and it is exceeding that target in 2017. In 2018 through 2020, the Authority will come close to that number; there are a number of areas of opportunity that will enable the Authority to exceed the target in those years.

In response to a question from Chairman Koelmel, Mr. Lurie said the downside case to the Authority's revenue forecast at a 95 percent confidence interval resulting from its three main net income drivers (Energy Prices, Capacity Prices and Hydro Volume) is no worse than \$100 million below the Authority's baseline forecast.

In response to further questioning from Chairman Koelmel, Mr. Parija said Enterprise Risk plans to conduct a multi-year hedging strategy and are in the process of implementing this strategy. Once implemented, the multi-year hedging strategy will introduce more stability over a three- to four-year period to meet the Authority's budget targets.

In response to a question from Vice Chairman Nicandri, Mr. Lurie said that Authority staff is hoping to gain operating efficiencies leading to stable or reduced operating expenses, despite inflationary costs in some areas of its business, through some of the new techniques described by Mr. Kessler in his report.

Capital Investments

Capital investment in transmission and energy efficiency are growing. NYPA plans to invest more than \$2 billion in capital, over the next four-year period, in its generation and transmission systems and in its customers through its energy efficiency program.

Mr. Lurie ended by saying that the Authority's Budget Plan is very prudent. He is gratified by Moody's affirming NYPA's rating after reviewing the Plan which maintains all of the Authority's core programs, funds its strategy, and protects its bond rating metrics and conservative financial position. In addition, the Plan manages risks and maintains operating efficiency, and, in some cases, improves efficiency in the Authority's business.

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

RESOLVED, That the 2017 Budget for the Power Authority, specifically including the expenditures for the (i) 2017 Power Authority Operations and Maintenance Budget, (ii) 2017 Capital Budget, and (iii) 2017 Energy Services 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 \$258.9 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 2017-2020 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 2017-2020 Four-Year Budget and Financial Plan to the Office of the State Comptroller in the prescribed format, post the Approved 2017-2020 Four-Year Budget and Financial Plan on the Authority's website and make the Approved 2017-2020 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.

e. Governance and Board Matters

i. Audit Committee Report

Audit Committee Chairman, Eugene Nicandri, provided the following report:

“The Audit Committee met this morning to receive an update on Internal Audit’s activities for 2016 and their 2017 plans.

- Internal Audit is substantially complete with their 2016 status plan and highlighted several accomplishments such as rolling out audit methodology improvements, launching the audit liaison program and receipt of positive customer feedback results.

- Internal Audit’s 2017 NYPA plan has been thoughtfully designed to address significant changes and risk at NYPA with over 70% of audits relating to either a strategic initiative or top enterprise risk.

- Internal Audit’s 2017 budget does not differ substantially from the 2016 budget and highlighted opportunities where work has been or could be brought into NYPA and executed by NYPA staff.

During the session, the members approved the Internal Audit 2017 NYPA Plan and 2017 budget.

The Internal Audit Canal Operation Plan will be presented for approval at the next Audit Committee meeting.”

ii. **Finance Committee Report**

**Release of Funds in Support of the NYS
Canal Corporation and NYS Canal System**

The President and Chief Executive Officer submitted the following report:

SUMMARY

The Trustees are requested to authorize the release of up to \$30.0 million in additional funding to support costs associated with the transfer of the New York State Canal Corporation ('Canal Corporation') and specified powers, duties and jurisdiction relating to the NYS Canal System ('Canal System') from the New York State Thruway Authority ('Thruway Authority') to the Authority (the 'Canal Transfer') including: (1) reimbursements to the Thruway Authority in respect of the period of October 1, 2016 through January 1, 2017 as authorized by legislation approving the 2016-17 Budget of the State of New York (Part TT of Chapter 54 of the Laws of 2016) (hereinafter the 'Canal Transfer Legislation'), and (2) Authority integration costs for 2016 associated with the Canal Transfer.

The Trustees are further requested to authorize the release of up to \$14.0 million in funding to support the operation of the Canal Corporation for the period from January 1, 2017 through January 31, 2017.

BACKGROUND

The Authority has been authorized to provide financial support for the Canal Transfer but the expenditures associated therewith do not constitute Operating Expenses as defined in the Authority's General Resolution Authorizing Revenue Obligations dated February 24, 1998, as amended and supplemented ('Bond Resolution'). Accordingly, any expenditures for such purposes 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 expenditures.

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.

DISCUSSION

The Canal Transfer Legislation authorized the Authority to reimburse the Thruway Authority for any and all operating and capital costs for the operation and maintenance of the Canal Corporation and the Canal System for the period of April 1, 2016 through January 1, 2017 in advance of the January 1, 2017 implementation date set forth in such legislation for the transfer of the Canal Corporation to the Authority. Pursuant to the Canal Transfer Legislation, the Authority entered into an agreement with the Thruway Authority ('Canal Reimbursement Agreement') to reimburse the Thruway Authority for any and all operating and capital costs for the operation and maintenance of the Canal Corporation and the Canal System for the period of April 1, 2016 through January 1, 2017.

On November 7, 2016, the Trustees authorized and ratified the release of up to \$60 million in initial funding to support estimated reimbursement costs and integration costs to be released prior to the next Board of Trustees meeting on December 15, 2016. Through November 30, 2016, the Authority has released a total of \$50.1 million comprised of \$37.0 million in reimbursement costs (in respect of the period April 1, 2016 – September 1, 2016) and \$13.1 million in integration costs. In total, the Authority estimates incurring \$90.0 million in reimbursement costs and integration costs for 2016.

The Canal Transfer Legislation further provides that the Canal Corporation will become a subsidiary of the Authority effective January 1, 2017. The Authority expects to incur up to \$14.0 million in costs to support the operation of the Canal Corporation for the period from January 1, 2017 to January 31, 2017.

Staff has reviewed the effect of releasing the requested \$44.0 million, in aggregate, 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 also calculated the impact of this release, together with the release of \$60 million approved in November 2016, and the release of \$91 million in voluntary contributions (\$20 million of which is to be considered today and \$71 million approved in March 2016) on the Authority's debt service coverage ratio and determined it would temporarily fall below the 2.0 reference level using Net Cash from Operating Activities ending with the last calendar quarter September 30, 2016. Based on the most recent November 30, 2016 Net Cash from Operating Activities and the Authority's Four Year Budget and Financial Plan, the 2.0 reference point level would be met for the period ending November 30, 2016 and at each year-end of the forecast period 2017-2020. For purposes of the Board's Policy Statement these expenditures are treated as amounts being withdrawn or paid out directly or indirectly to a State entity, so that such expenditures will be 'Prior Contributions to the State' under such Policy Statement. Given the current financial condition of the Authority, its estimated future revenues, operating expenses, debt service and reserve requirements, staff is of the view that it will be feasible for the Authority to release such amounts from the trust estate created by the Bond Resolution consistent with the terms thereof.

FISCAL INFORMATION

Staff has determined that sufficient funds are available in the Operating Fund to release up to \$44.0 million, in aggregate, in funding, consisting of (i) up to \$30.0 million in funding to support 2016 costs associated with the Canal Transfer and (ii) up to \$14.0 million in funding to support operation of the Canal Corporation for the period from January 1, 2017 to January 31, 2017. 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 Canal Transfer Legislation was enacted subsequent to approval of the Authority's 2016 Operating Budget approved by the Trustees in December 2015 and expenses associated with the transfer and integration were not anticipated for and were not included in the 2016 Operating Budget. The expenses associated with the operation of the Canal Corporation for the month of January 2017 are expected to be included in the 2017 Canal Corporation budget that will be submitted to the Canal Corporation's Board of Trustees in January 2017 for review and approval.

RECOMMENDATION

The Treasurer recommends that the Trustees affirm that the release of up to \$44.0 million, in aggregate, in funding, consisting of (i) up to \$30.0 million in funding to support costs associated with the Canal Transfer and (ii) up to \$14.0 million in funding to support the operation of the Canal Corporation for the period of January 1, 2017 to January 31, 2017. The Treasurer 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. The Finance Committee considered this item at their meeting on December 14, 2016 and is also recommending its approval.

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

Chairperson McKibben said that the Finance Committee met yesterday afternoon and the members voted to recommend that the full Board of Trustees adopt the Release of Funds in Support of the New York State Canal Corporation and the New York State Canal System as outlined in the materials the Board members received and reviewed. The resolution is now before the Board of adoption.

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

RESOLVED, That the Trustees hereby authorize and ratify the release of up to \$44.0 million, in aggregate, in funding consisting of (i) up to \$30.0 million in funding to support costs associated with the transfer of the New York State Canal Corporation and specified powers, duties and jurisdiction relating to the NYS Canal System from the New York State Thruway Authority (“Thruway Authority”) to the Authority (the “Canal Transfer”) including: (1) reimbursements to the Thruway Authority in respect of the period October 1, 2016 through January 1, 2017 as authorized by legislation approving the 2016-17 Budget of the State of New York (Part TT of Chapter 54 of the Laws of 2016), and (2) Authority integration costs for 2016 associated with the Canal Transfer, and (ii) up to \$14.0 million in funding to support operation of the Canal Corporation for the period from January 1, 2017 to January 31, 2017, as discussed in the foregoing report of the President and Chief Executive Officer; and be it further

RESOLVED, That the total, aggregate amount of up to \$44.0 million in funding as described in the foregoing resolutions 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 providing such amount is feasible and advisable; and be it further

RESOLVED, That as a condition to making the payments specified in the foregoing resolutions, 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. **Next Meeting**

The Regular meeting of the Trustees will be held on January 31, 2017 **at the Clarence D. Rappleyea Building, White Plains, New York**, unless otherwise designated by the Chairman with the concurrence of the Trustees.

Closing

Upon motion made by Trustee Picente and seconded by Vice Chairman Nicandri, the meeting was adjourned at approximately 12:20 p.m.

Karen Delince

Karen Delince
Corporate Secretary

EXHIBITS

For

December 15, 2016

Regular Meeting

Minutes

Procurement (Services) Contracts – Awards
(For Description of Contracts See "Discussion")

<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>
HR & ESS - HR & ORGANIZATIONAL DEVELOPMENT	DEVELOPMENT DIMENSIONS INTERNATIONAL, INC. Bridgeville, PA (Q16-6087JMT; PO# TBA)	01/01/17 (on or about)	Provide for training services for skills enhancement re performance feedback and coaching for staff development	12/31/21 (Initial 3-year award with 2-year option to extend)	B/P			\$505,000*
						*Note: represents total for up to 5-year term		
HR & ESS - HR & ORGANIZATIONAL DEVELOPMENT	ESSENCE PART- NERS, INC. ♦ New York, NY (Q16-6110JMT; PO# TBA)	01/01/17 (on or about)	Provide for consulting services re change management and strategic communications	12/31/18	B/P			\$1,000,000*
						*Note: represents total for up to 2-year term		
HR & ESS - ESS - REAL ESTATE + UTILITY OPERATIONS – TRANSMISSION	NETWORK MAPPING, INC. Reno, NV (Aviation services provider based in NYS) (Q16-6101JM; PO# TBA)	01/01/17 (on or about)	Provide for statewide LiDAR surveying and mapping services	12/31/20	B/P			\$2,000,000*
						*Note: represents total for up to 4-year term		
INFORMATION TECHNOLOGY on behalf of ACCOUNTS PAYABLE	CONCUR TECHNOLOGIES, INC. (An SAP Company) Bellevue, WA (HQ) (PO# TBA)	12/16/16 (on or about)	Provide for integrated Travel and Expense management cloud-based software solution with hosting and related services	12/15/21	Si/S			\$526,520*
						*Note: represents total for up to 5-year term		
INFORMATION TECHNOLOGY	DELOITTE CONSULTING LLP Hermitage, TN (Admin. Office) (Services will be substantially performed within NYS) 4500279081	11/14/16	Provide for cyber security services and enterprise architecture support	11/13/17 (Term of Initial Award to end 3/31/17)	B/P	\$2,500,000 (Initial Award Amount)		\$7,995,396*
						*Note: represents total for up to 1-year term		

♦ 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; S= Sole Source; Si= Single Source; C= Competitive Search
 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 – Awards
(For Description of Contracts See "Discussion")

EXHIBIT "4b i-A"
December 15, 2016

<u>Bus Unit/ 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>Authorized Expenditures For Life Of Contract</u>
LAW - CSO on behalf of MARKETING/ BUS PWR ALLOCATIONS + EH&S	MILLER ADVERTIS- ING AGENCY, INC. New York, NY (Q16-6109JMT; PO# TBA)	01/01/17 (on or about)	Provide for media advertising services for the placement of mandatory legal and public ads in news- papers and periodi- cals throughout NYS	12/31/21	B/S			\$500,000*
						*Note: represents total for up to 5-year term		
RISK MANAGEMENT	Q16-6095MR; 6 awards: 1. AON RISK SERVICES NORTHEAST, INC. New York, NY 2. DELOITTE & TOUCHE LLP New York, NY 3. ERNST & YOUNG LLP New York, NY 4. PA CONSULTING GROUP, INC. New York, NY 5. PIVOTAL RISK ADVISORS, INC. Houston, TX 6. THE BRATTLE GROUP, INC. Cambridge, MA (PO#s TBA)	01/01/17 (on or about)	Provide for risk management con- sulting services in these areas: 1. Risk management program support 2. Risk modeling and quantification 3. Energy derivative Fair Market Valuation and/or Validation 4. Insurance support 5. Credit risk support	12/31/21 * * coterminous for all 6 con- tracts, regard- less of indivi- dual start date	B/P			\$5,000,000*
						*Note: represents aggregate total for up to 5-year term		

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Procurement (Services) Contracts – Awards
(For Description of Contracts See "Discussion")

EXHIBIT "4b i-A"
December 15, 2016

<u>Bus Unit/ 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>Authorized Expenditures For Life Of Contract</u>
UTILITY OPERATIONS - TRANSMISSION	ALLEN CHASE ENTERPRISES, INC. Oswego, NY (Q16-6098JM ; PO# TBA)	01/01/17 (on or about)	Provide for bare ground weed con- trol services at Authority substations and related facilities	12/31/20	B/S			\$200,000*
						*Note: represents total for up to 4-year term		
UTILITY OPERATIONS - TRANSMISSION	HVERFIELD AVIATION, INC. Gettysburg, PA (C16-81916MG ; PO# TBA)	01/01/17 (on or about)	Provide for aerial inspection, mainte- nance / repair ser- vices for high voltage transmission lines	12/31/21	B/S			\$2,800,000*
						*Note: represents total for up to 5-year term		
UTILITY OPERATIONS - TRANSMISSION	LEWIS TREE SERVICE, INC. West Henrietta, NY (Q16-6065JM ; PO# TBA)	01/01/17 (on or about)	Provide for Right-of-Way vegetation management services along 1,400 miles of high-voltage transmission lines	12/31/20	B/S			\$11,000,000*
						*Note: represents total for up to 4-year term		
UTILITY OPERATIONS - 500 MW PLANT	SENTRY EQUIPMENT CORP. Oconomowoc, WI (Technician/s based in Matthews, NC) (Q16-6097HM ; PO# TBA)	01/01/17 (on or about)	Provide for maintenance services to support opera- tion of the chemistry analy- zer monitoring panel at the 500 MW Plant	12/31/21	B/S			\$159,660*
						*Note: represents total for up to 5-year term		

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Procurement (Services) Contracts – Awards
 (For Description of Contracts See "Discussion")

EXHIBIT "4b i-A"
 December 15, 2016

<u>Bus Unit/ 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>Authorized Expenditures For Life Of Contract</u>
CONTRACTS TO BE ISSUED BY THE NEW YORK POWER AUTHORITY ON BEHALF OF THE NEW YORK STATE CANAL CORPORATION (NYSCC):								
UTILITY OPERATIONS - ENGINEERING	Q16-6114MH; 5 awards: 1. AECOM USA, INC. Latham, NY 2. ARCADIS OF NEW YORK, INC. White Plains, NY 3. GREENMAN-PEDERSEN, INC. Albany, NY 4. MOTT MACDONALD NY, INC. Buffalo, NY 5. RAVI ENGINEERING & ♦ LAND SURVEYING, PC Rochester, NY (PO#s TBA)	01/01/17 (on or about)	Provide for construction management and inspection services for NYSCC	12/31/21* * coterminous for all 5 contracts, regardless of individual start date	B/P			\$10,000,000*
								*Note: represents aggregate total for up to 5-year term
UTILITY OPERATIONS - ENGINEERING	Q16-6115MH; 5 awards: 1. BERGMANN ASSOCIATES, ARCHITECTS, ENGINEERS, LANDSCAPE ARCHITECTS & SURVEYORS, DPC Rochester, NY 2. CHA CONSULTING, INC. Albany, NY	01/01/17 (on or about)	Provide for on-call engineering services to support NYSCC infrastructure, locks, dams, spillways, waste weirs, feeder canals, guard gates, lift bridges, embankments, dam safety program and ancillary facilities	12/31/21* * coterminous for all 5 contracts, regardless of individual start date	B/A			\$10,000,000*
								*Note: represents aggregate total for up to 5-year term
								[continued on next page]

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Procurement (Services) Contracts – Awards
 (For Description of Contracts See "Discussion")

EXHIBIT "4b i-A"
 December 15, 2016

<u>Bus Unit/ 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>Authorized Expenditures For Life Of Contract</u>
	3. LABELLA ASSOCIATES, DPC Rochester, NY							
	4. O'BRIEN & GERE ENGINEERS, INC. Syracuse, NY							
	5. PAUL C. RIZZO ENGINEERING - NEW YORK, PLLC Tarrytown, NY (PO#s TBA)							

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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 – Extensions and/or Additional Funding
 (For Description of Contracts See "Discussion")

EXHIBIT "4b i-B"
 December 15, 2016

<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>
HUMAN RE-SOURCES & ENTERPRISE SHARED SERVICES - KNOWLEDGE MANAGEMENT	AMERICAN PRODUCTIVITY & QUALITY CENTER (APQC) Houston, TX 4500266741	12/14/15	Provide for consulting services to support the Knowledge Management Office and program	03/31/17	Si/P	\$646,500	\$337,248	\$646,500*
						*Note: includes original award amount of \$315,000 + an additional \$331,500 authorized per the EAPs + NO ADDITIONAL FUNDING REQUESTED		
INFORMATION TECHNOLOGY	Extension & Additional Funding of 10 contracts from Q13-5484JR: 1. BAYFORCE TECHNOLOGY SOLUTIONS, INC. Tampa, FL 4600002753 2. CARLYLE CONSULTING SERVICES, INC. New York, NY 4600002751 3. ECLARO INTERNATIONAL, ♦ INC. New York, NY 4600003182 4. EXPERIS US, INC. Milwaukee, WI [Unawarded to date] 5. GROM ASSOCIATES, INC. Flemington, NJ 4600002890	Various Effective Dates from 01/01/14 --	Provide for services of temporary programming personnel for specialized SAP-related tasks and projects to support various departments and initiatives, on an "as needed" basis	12/31/17	B/S	\$3,700,000 (Authorized Aggregate "Target Value")	\$3,260,001 (Aggregate Released Amount)	\$7,700,000*
						*Note: includes originally approved aggregate total of \$2.7 million + an additional \$1 million authorized per the EAPs + CURRENT REQUEST FOR AN ADDITIONAL \$4 million		
[continued on next page]								

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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) and Other Contracts – Extensions and/or Additional Funding
 (For Description of Contracts See "Discussion")

EXHIBIT "4b i-B"
 December 15, 2016

<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>
	6. MITCHELL MARTIN INC. New York, NY 4600002752							
	7. SAGE GROUP CONSULTING, INC. Hazlet, NJ 4600002956							
	8. SAPTA GLOBAL, INC. ♦ dba ZEN4IT Woodbridge, NJ 4600002764							
	9. SIERRA INFOSYS, INC. ♦ Houston, TX [Unawarded to date]							
	10. UNIQUE COMP, INC. ♦ Long Island City, NY 4600002979							
INFORMATION TECHNOLOGY	Additional Funding for 10 contracts resulting from Q15-5841SR:	Various Effective Dates from 07/01/15 --	Provide for SAP consult- ing services in four areas: advisory and consulting services, system integra- tion and implementation services, end-to-end con- sulting services and turn- key solutions	06/30/18	B/P	\$15,500,000 (Authorized Aggregate "Target Value")	\$8,648,770 (Aggregate Released Amount)	\$25,500,000*
	1. A-1 TECHNOLOGY ♦ INC. New York, NY 4600002996							
	2. ERNST & YOUNG LLP New York, NY 4600002987							
	[continued on next page]							

*Note: includes originally approved aggregate total of \$10.5 million + an additional \$5 million authorized per the Proc. Guidelines + **CURRENT REQUEST FOR AN ADDITIONAL \$10 million**

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Procurement (Services) and Other Contracts – Extensions and/or Additional Funding
(For Description of Contracts See "Discussion")

EXHIBIT "4b i-B"
 December 15, 2016

<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>
	3. GROM ASSOCIATES, INC. Flemington, NJ 4600002997							
	4. GYANSYS, INC. Indianapolis, IN 4600003004							
	5. HEWLETT-PACKARD COMPANY Palo Alto, CA 4600002998							
	6. NTT DATA, INC. Boston, MA 4600002999							
	7. QUINTEL-MC, INC./ QUINTEL MANAGEMENT CONSULTING, INC. Greenwood Village, CO 4600003000							
	8. SAGE GROUP CON- SULTING, INC. Hazlet, NJ 4600003001							
	9. SIERRA INFOSYS, INC. ♦ Houston, TX 4600003002							
	10. U-TEGRATION, INC. Houston, TX 4600003003							

♦ 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

Procurement (Services) and Other Contracts – Extensions and/or Additional Funding
(For Description of Contracts See "Discussion")

EXHIBIT "4b i-B"
 December 15, 2016

<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>
UTILITY OPERATIONS - TECHNOLOGY & INNOVATION	ARIZONA STATE UNIVERSITY Tempe, AZ for services of the Power Systems Engineering Research Center (PSERC) 4500267704	01/01/16	Provide co-funding for PSERC project re miti- gating adverse impacts of negative damping induced by wind gen- erators on power grid dynamics, as part of the the Authority's PSERC membership	12/31/17	Si/N	\$25,000	\$25,000	\$25,000*
							*Note: represents original award amount; NO ADDITIONAL FUNDING REQUESTED	
UTILITY OPERATIONS - PROJECT MANAGEMENT / NIA PROJ	FERGUSON ELECTRIC CONSTRUCTION CO. Buffalo, NY 4500252428	11/20/14	Provide for installation services in connection with the GSU transformer project at the Niagara Project - RMNPP	12/31/18	B/C	\$358,695	\$113,575	\$371,900*
							*Note: represents approved original amount; NO ADDITIONAL FUNDING REQUESTED	
UTILITY OPERATIONS - PROJECT MANAGEMENT / CRESCENT & VISCHER FERRY	VOITH HYDRO, INC. York, PA 4600002651	01/01/13	Provide for all work re- quired for the shop and field overhauls and replace- ment of accessories for Units 3 and 4 at the Crescent and Vischer Ferry Small Hydro Plants, as part of the LEM Program	07/01/17	B/C	\$12,611,525 ("Target Value")	\$10,004,573 (Released Amount)	\$12,611,525*
							*Note: includes approved original amount of \$7.2 million + cumulative additional funding authorized per the EAPs and/or ratified and approved by the Trustees, for an approved total of \$12,611,525; 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

**NEIGHBORING STATE ST. LAWRENCE
HYDROPOWER ALLOCATIONS
(kW)**

Neighboring State	St. Lawrence Firm Power (kW)
Connecticut	3,200
New Jersey	7,800
Ohio	10,200
Pennsylvania	11,300
Rhode Island	1,000
Vermont	1,000
TOTAL	34,500

POWER AUTHORITY
OF THE
STATE OF NEW YORK

30 South Pearl Street
Albany, New York 12207

AGREEMENT FOR THE SALE
OF SAINT LAWRENCE-FDR PROJECT POWER AND ENERGY TO
Customer

Service Tariff No. SL-1 - Firm Hydroelectric Power and Energy

Service Tariff No. SL-2 - Non-Firm Hydroelectric Energy Service

POWER AUTHORITY OF THE STATE OF NEW YORK

30 South Pearl Street

Albany, New York 12207

AGREEMENT FOR THE SALE OF HYDROPOWER AND ENERGY

Customer, which is the bargaining agent for the State of **X**, hereby enters into this Agreement with the Power Authority of the State of New York (hereinafter called the "Parties"), for electric service as follows:

I. Definitions

- a. **Agreement** means this Agreement.
- b. **Authority** is the Power Authority of the State of New York.
- c. **Contract Demand** will be the amount set forth in Appendix A hereto or such other amount as may be determined in accordance with the provisions of this Agreement.
- d. **Customer** is the bargaining agent identified above and a signatory to the Relicensing Settlement Agreement.
- e. **Designated States** means the states represented by the Neighboring State Customers.
- f. **Electric Service** is any type of power and energy available to Customer in accordance with applicable Service Tariffs, Rules and other contract documents.
- g. **Firm Hydroelectric Power and Energy** are power and associated energy from the Authority's St. Lawrence-FDR Power Project, intended to be available at all times except for limitations provided in this Agreement, the Rules, a Service Tariff or in other contract documents.
- h. **FERC** means the U.S. Federal Energy Regulatory Commission (or any successor organization).
- i. **FERC License** means the license issued by the FERC to the Authority for the continued operation and maintenance of the St. Lawrence-FDR Power Project, pursuant to Section 15 of the Federal Power Act, which became effective November 1, 2003 after the expiration of the Project's original license issued in 1953.

- j. **Market Cost** means the actual cost of energy scheduled in the NYISO day-ahead or real-time market on a non-discriminatory basis from the zone or zones in which NYPA procures Substitute Energy, inclusive of losses and congestion (if applicable).
- k. **Neighboring State Customers** means Customer and all other neighboring state bargaining agents that receive service from the St. Lawrence-FDR Power Project.
- l. **Non-Firm Hydroelectric Energy** is energy from the Authority's St. Lawrence-FDR Power Project that is in addition to the energy associated with Firm Hydroelectric Power, that is available from time to time, and that is subject to interruption for extended periods because of decreased water flow or other system conditions.
- m. **NYISO** means the New York Independent System Operator or any successor organization.
- n. **NYISO Capability Period** is as defined in the NYISO Open Access Transmission Tariff: Six-month periods which are established as follows: (1) from May 1 through October 31 of each year; and (2) from November 1 of each year through April 30 of the following year; or such other periods as may be determined by the Operating Committee of the NYISO.
- o. **Project** means the St. Lawrence-FDR Power Project, FERC Project 2000.
- p. **Project Power and Energy** means the Firm Hydroelectric Power and Energy and the Non-Firm Hydroelectric Energy supplied from the Project under this Agreement.
- q. **RTO** means an entity that, as a regional transmission organization, operates transmission facilities and centralized wholesale power markets in a region pursuant to authority granted by one or more agreements or tariffs that have been accepted or approved by FERC. This term shall also refer to an independent system operator (ISO) that operates in a similar manner to an RTO and pursuant to agreements or tariffs accepted or approved by FERC, but does not refer to the NYISO.
- r. **Relicensing Settlement Agreement** means the St. Lawrence – FDR Power Project, FERC Project No. 2000 Relicensing Settlement Agreement dated September 30, 2003.
- s. **Rules** are the applicable provisions of the 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).
- t. **Service Tariff** is a schedule establishing rates and other conditions for sale of Electric Service to Customer.

- u. **Substitute Energy** means energy that the Authority provides at the request of the Customer to replace hydroelectricity that would otherwise have been supplied to the Customer under this Agreement but for reduced water flows caused by hydrologic conditions. Unless otherwise agreed upon by the Parties, Substitute Energy refers to energy purchased by the Authority for the Customer from markets administered by the NYISO.

II. Electric Service to be Provided

The Authority shall provide Electric Service pursuant to Service Tariffs for Project Power and Energy to enable the Customer to receive its allocations, as described in Appendix A, from the Project in accordance with the provisions of the FERC License. The Contract Demand may be modified by the Authority if the amount of Firm Hydroelectric Power and Energy available for sale from the Project is modified as required to comply with any ruling, order or decision of any regulatory or judicial body having jurisdiction, provided that in the event of such a modification, the aggregate percentage of the Firm Hydroelectric Power and Energy allocated to Neighboring State Customers shall be four and one-quarter percent (4.25%) of all Project Firm Hydroelectric Power and Energy, as modified. In the event the Authority increases the capability of the Project, the Authority shall conduct a study to determine whether additional quantities of Firm Hydroelectric Power and Energy and/or Non-Firm Hydroelectric Energy will be produced. If the Authority conducts a discrete program of changes or upgrades to the Project, such as a program of upgrades to the Project's generating units, the study referred to in the foregoing sentence shall be conducted at the completion of such program. If the Authority determines that additional quantities of Firm Hydroelectric Power and Energy and/or Non-Firm Hydroelectric Energy are produced from the Project as a result of such changes or upgrades, the aggregate percentage of such classes of power and/or energy to be offered to Neighboring State Customers shall be four and one-quarter percent (4.25%). Customer's share of any additional quantities of Firm Hydroelectric Power and Energy and/or Non-Firm Hydroelectric Energy, which it has no obligation to purchase, shall be based on its proportional share of the neighboring state allocation among Neighboring State Customers of Project Power and Energy, as applicable.

III. Availability of Non-Firm Hydroelectric Energy

Except as otherwise provided pursuant to this Agreement, four and one-quarter percent (4.25%) of all Project Non-Firm Hydroelectric Energy shall be made available pursuant to Service Tariff No. SL-2 to Neighboring State Customers on a cumulative basis effective on the commencement of service under this Agreement. Non-Firm Hydroelectric Energy from the Project shall be offered to all Neighboring State Customers in proportion to their respective firm power allocations (i.e., based on the Project capacity existing as of the effective date of this Agreement as it may be subsequently modified pursuant to Article II). More specifically, the Customer's

Non-Firm Hydroelectric Energy allocation from the Project will be equal to the Customer's Contract Demand (in kilowatts, "kW") divided by the sum of the Neighboring State Customers' Contract Demands times the total Project Non-Firm Hydroelectric Energy available to all Neighboring State Customers. To the extent that there is a balance owing to Customer on the effective date of service under this Agreement arising out of service under a prior agreement for the sale of Project Non-Firm Hydroelectric Energy, that balance shall be carried over and maintained as the balance as of the effective date of service under this Agreement.

The Authority shall make available periodically, but at least annually, a tabulation showing cumulative comparisons between total actual Non-Firm Hydroelectric Energy sales to each Neighboring State Customer and the amount of energy the Authority has contracted to make available.

IV. Rules, Regulations and Service Tariffs

The Rules, Service Tariff No. SL-1, and Service Tariff No. SL-2, as now in effect and/or such superseding tariffs or other tariffs as the Authority may later promulgate, all as such Rules and Service Tariffs may be later amended from time to time by the Authority, are hereby incorporated into this Agreement with the same force and effect as if herein set forth at length. In the event of any inconsistencies, conflicts or differences between the provisions of the Service Tariffs and the Rules, the provisions of the Service Tariffs shall govern. In the event of any inconsistencies, conflicts or differences between the provisions of this Agreement and the Service Tariffs, the provisions of this Agreement shall govern. To the extent the New York State Administrative Procedure Act ("SAPA") applies to any proposed change to the Rules or Service Tariffs, the applicable notice period under this statute shall apply. The Authority shall provide the Customer with a copy of the Authority Board of Trustees' approval of any proposed change to the Rules or Service Tariffs within two (2) business days of Board approval. To the extent the SAPA does not apply to any proposed change to the Rules or Service Tariffs, the Authority shall provide at least sixty (60) days prior written notice to Customer, but in no event less notice than the Authority provides to its customers within New York State of any proposed change in Rules or Service Tariffs.

V. Resale of Power and Energy

In reselling and distributing Project Power and Energy purchased from Authority, Customer shall: 1) do so pursuant to the appropriate laws of the State or Commonwealth in which Customer operates, 2) do so without profit other than reasonable compensation for administrative and service costs, 3) resell such Project Power and Energy only to the distributing entities designated in Appendix A ("Distributing Entities") of this Agreement filed by Customer with Authority and maintained on a current basis, 4) not permit such Distributing Entities to sell such Project Power and Energy for resale except as designated in Appendix A of this Agreement, 5) require such Distributing Entities to resell the Project Power and

Energy without profit except for administrative and services costs of the Customer and reasonable compensation (as allowed by the regulatory agencies authorized by law to regulate the rates and practices of the Distributing Entities) for use of facilities and for services furnished in the transmission and distribution of such power, and 6) comply with the provisions of the FERC License and the New York Power Authority Act (N.Y. Pub. Auth. Law Section §1000 et seq.), to the extent such Power Authority Act is not inconsistent with the FERC License. Neither the Customer nor any Distributing Entity may resell the Project Power and Energy purchased from the Authority into their RTO's market for financial settlement; provided, however, Customer and any Distributing Entity shall be permitted to continue offering Project Power and Energy purchased from the Authority into an RTO market where doing so is necessary to satisfy applicable requirements of the RTO in meeting Customer's load obligations.

Customer shall keep its books, accounts and records pertaining to the purchase, delivery and sale of Authority power according to procedures reasonably deemed necessary by Authority to ensure compliance with applicable statutes, licenses, the Rules and shall require its designated receiving entities to do likewise. It shall provide such information and permit such inspection of its books and records as Authority may reasonably request and shall require its designated receiving entities as identified in Appendix A to the Agreement to do likewise.

If the Authority determines that Customer, or any Distributing Entity is engaged in resale of such Project Power and Energy in a manner inconsistent with this Agreement, Authority may require Customer to cease the resale of Project Power and Energy to such Distributing Entity.

VI. Determination and Modification to Monthly Energy Allotments

Monthly energy allotments shall be determined by the Authority using the monthly load factors set forth in Appendix A which will be updated on an annual basis. Load factors will be calculated from the Customer's aggregated system-wide hourly interval load data for each month of the year two years prior for all end user recipients of Project Power and Energy under this Agreement. If Customer has recipients that do not have readily available historical load data, the Customer may substitute aggregated monthly billing determinants for energy and demand for those recipients as a data contribution to the load factors as set forth below. The Customer's monthly load factor calculation will be as follows:

$$\text{(System-wide monthly energy MWh)} \div [(\text{monthly coincident peak demand MW}) \times (\text{number of hours in the month})]$$

The hourly load data and substitute aggregated billing determinant data shall be submitted to the Authority by March 1, 2017, for calendar year 2015, to be used in the initial Appendix A. For each subsequent year, the data submitted by Customer

shall be for the calendar year two years earlier, and shall be submitted to the Authority by the second Monday in March. Appendix A and the system-wide monthly load factors therein shall be updated annually by the Authority based on the load factors of all of the Customer's recipients of Project Power and Energy provided under this Agreement for whom load data from the calendar year two years earlier are readily available.

If Customer has individual recipients that do not have readily available historical load data, these recipients may be excluded from the annual calculation of the Customer's system-wide load factors provided that the aggregate of excluded recipients does not exceed 7% of the aggregate monthly energy (MWh) of the Customer's entire system-wide load.

If a Customer does not have interval load data readily available for at least 93% of the aggregate monthly energy (MWh) of its recipients of Project Power and Energy under this Agreement, those recipients may substitute all or a portion of this 93% with hourly load data for calendar month billed energy (MWh) and billed demand (MW) as recorded and quantified by revenue grade metering equipment, for the calendar year two years earlier. The substituted monthly load factors will be weighted for the portion of the Customer's system-wide MWh they represent and combined with the load factors calculated with the otherwise supplied interval load data for the remainder of the Customer's system. Assuming a threshold of 93% of energy is reached, the Authority will determine the load factor calculation for the Customer.

In the case of a substantial reallocation of power among the Distributing Entities, the monthly load factor, and resulting energy allotment, shall be adjusted no later than the next load factor update date. Appendix A, attached hereto contains, inter alia, the monthly load factor that determines the energy allotment and a list of all Distributing Entities on whose behalf Customer has contracted for Project Power and Energy.

Customer may at any time, on written notice to the Authority, modify its Appendix A to redistribute its then existing allocation among authorized recipients in its state. The quantities of Project Power and Energy referred to herein are established by the Authority as part of an allocation of power to New York's neighboring states in order to fulfill statutory and/or license obligations.

VII. Transmission and Delivery of Power and Energy

Customer understands that delivery of Project Power and Energy to the New York State border ("Border") will be made over the transmission facilities under the control of the NYISO. At the request of and on the approval of Customer, the Authority shall arrange for the transmission of the Project Power and Energy supplied hereunder to the Border consistent with Customer's request and the terms of the Open Access Transmission Tariff of the NYISO. It is the Customer's responsibility to compensate

the Authority for all net costs, including any NYISO related charges (net of credits), associated with transmission to the Border. In lieu of the Authority arranging transmission service to the Border, Customer may elect, in its sole discretion, to arrange necessary transmission on its own behalf. In that instance, Customer must provide the Authority with the requisite notice in order to cancel all preexisting wheeling arrangements subject to the terms of such arrangements and waive any rights it might have obligating the Authority to provide wheeling to the Border. Delivery of Project Power and Energy from the Border to the Distributing Entities' consumers in Customer's state is the responsibility of Customer or the Distributing Entity, and Customer or Distributing Entity shall make the necessary arrangements to accomplish said delivery.

The Authority shall endeavor to accommodate Customer's request(s) to meet the requirements of other transmission and/or reliability organizations affecting the delivery of Project Power and Energy under this Agreement.

VIII. Scheduling Procedures

The Scheduling Procedures as provided in Service Tariff Nos. SL-1 and SL-2 reflect the scheduling requirements of the Authority. In the event the Authority determines that a modification to the Scheduling Procedures or methodologies is necessary to be consistent with this Agreement, or to conform such procedures to the requirements of the NYISO or to improve the efficiency of operations, the Authority shall first consult with Customer in order to identify and mitigate any adverse impacts on Customer that may result from the proposed modification. If the Authority and Customer do not reach agreement on modified Scheduling Procedures or methodologies within 30 days after their initial consultation, the Authority shall furnish Customer prior written notice in accordance with Article XVII of the Authority's proposed modification of Scheduling Procedures or methodologies, provided that any such modification shall not reduce or impair the Customer's contractual entitlement to Project Power and Energy available hereunder to serve Customer's load.

IX. Dispatching Agent and Load Shape

Customer may elect to designate one or more dispatching agents ("Dispatching Agent") for the purpose of administering the scheduling provisions of Service Tariff Nos. SL-1 and SL-2 for the term thereof. The Authority may require Customer or its Dispatching Agent to schedule energy in general accordance with Customer's system load shape, except that Customer may (i) at its option, schedule energy against the aggregate load shape of the RTO region or subregion in which the end-use recipients of Authority electricity purchased by Customer are located, or (ii) with the agreement of the Authority, schedule energy on any other load shape basis that represents the end-use recipients of the Authority electricity purchased by Customer. Customer may change its specification of the load shape or other basis

on which it will schedule energy for a new calendar year by providing not less than three months prior notice to the Authority.

X. Rates

Firm Hydroelectric Power and Energy and Non-Firm Hydroelectric Energy shall be sold to Customer hereunder at cost-based rates equivalent to rates charged to in-state preference customers. The Authority shall charge and Customer shall pay the preference power rates as adopted by the Authority from time to time for as long as those rates remain in effect during the term of this Agreement. Customer waives any and all objections, suits, appeals or other challenges to the preference power rates adopted by the Authority except as otherwise provided for below.

Customer waives any challenges to any of the following methodologies and principles¹ to the extent that one or more of such methodologies and principles are used by the Authority to set rates different than those adopted on April 29, 2003 and November 15, 2011:

- (i) The principles set forth in the March 5, 1986 Settlement Agreement (Appendix B to this Agreement) settling *Auer v. Dyson*, No. 81-124 (Sup. Ct. Oswego Co.), *Auer v. Power Authority*, Index No. 11999-84 (Sup. Ct. N.Y. Co.) and *Delaware County Electric Cooperative, Inc. v. Power Authority*, 82 Civ. 7256 (S.D.N.Y.) (the “Auer Settlement”).
- (ii) Recovery of capital costs using Trended Original Cost and Original Cost methodologies.
- (iii) Treatment of sales to third parties, including the New York Independent System Operator.
- (iv) Allocation of Indirect Overheads.
- (v) Melding of costs of the Niagara Power Project and St. Lawrence-FDR Power Project for ratemaking.
- (vi) Post-employment benefits other than pensions (*i.e.*, retiree health benefits).

¹ These methodologies and principles were employed in and explained by (1) the Authority’s January 2003 Report on Hydroelectric Production Rates and the Staff Analysis of Public Comments and Recommendations adopted by the Authority’s Trustees on April 29, 2003; (2) the RSR explanatory statement attached hereto as Appendix B; and (3) the November 2011 Authority Staff Analysis of Public Comments and Recommendations adopted by the Authority’s Trustees on November 15, 2011.

- (vii) Rate Stabilization Reserve methodology as supplemented by the explanatory statement attached hereto as Appendix B.
- (viii) Unforced Capacity (“UCAP”) sales credited to Cost of Service.

In the event the Authority ceases to employ any of the methodologies and principles enumerated above, the Customer shall have the right to take any position whatsoever with respect to such methodology or principle, but shall not have the right to challenge any of the remaining methodologies and principles that continue to be employed by the Authority.

XI. Other Classes of Power and Energy

In the event that the Authority at any time determines that any class of power and energy other than those sold pursuant to Service Tariff Nos. SL-1 and SL-2 is available for sale to Customer or that additional power and energy under those Service Tariffs is available for sale to Customer, the Authority shall notify Customer, and Customer may purchase such power and energy hereunder at the rate schedule or schedules then in effect for such power and energy, in such amounts and subject to such terms and conditions as shall then be agreed upon between the Authority and Customer.

XII. Reallocation of Firm Hydroelectric Power and Energy

If Customer is or becomes unable to receive, or chooses not to receive, any or all of the Firm Hydroelectric Power and Energy allocated to it, such power and energy will be reallocated by the Authority pro-rata among all other Neighboring State Customers. Customer must provide written notice to the Authority and all other Neighboring State Customers of such reallocation and of the subsequent resolution. Upon acceptance of such notice by the Authority, any required changes in the allocations of Firm Hydroelectric Power and Energy among the Neighboring State Customers shall become effective the first day of the succeeding January or July, whichever comes first, but no earlier than ninety (90) days after the Authority's receipt of such notice.

XIII. Hydropower Curtailments and Substitute Energy

- a. If, as a result of reduced water flows caused by hydrologic conditions, there is insufficient energy from the Project to supply the full Firm Hydroelectric Power and Energy requirements of the Neighboring State Customers, curtailments (*i.e.* reductions) in the amount of Firm Hydroelectric Power and Energy associated with the Allocation to which the Customer is entitled shall be applied on a *pro rata* basis to all firm power and energy customers served from the Project, as referenced in Service Tariff No. SL-1, General Provisions, Section B.

- b. The Authority shall provide no less than thirty (30) days' notice to Customer of any anticipated curtailments that could impact Customer's Electric Service under this Agreement.
- c. For each kilowatt-hour of Substitute Energy supplied by the Authority, the Customer will pay the Authority directly during the billing month: (1) the Market Cost of the Substitute Energy; and (2) any applicable NYISO charges and taxes the Authority incurs in connection with the provision of such Substitute Energy. Billing and payment for Substitute Energy shall be governed by the Billing and Payments provision of the Authority's Rules (Section 454.6) and shall apply directly to the Substitute Energy service supplied to the Customer.
- d. Upon written request by the Customer, the Authority will provide Substitute Energy to the Customer to replace the Firm Hydroelectric Power and Energy that would otherwise have been supplied under this Agreement. Such request shall be received by the Authority at least thirty (30) days prior to the start of the six-month NYISO Capability Period, during which time such Substitute Energy shall be supplied by the Authority. The provision of Substitute Energy may be terminated by the Authority or the Customer upon written notice of at least thirty (30) days prior to the start of the subsequent six-month NYISO Capability Period.

XIV. Environmental Attributes

In the event the Project output sold to Customer hereunder can, at any time, be claimed by Customer to have renewable characteristics in connection with a renewable portfolio, or renewable attributes or similarly intended program, Customer shall have the right to require the transfer, from the Authority to the Customer, of such attributes upon terms and conditions to be negotiated between the Authority and Customer. This Article XIV has been negotiated between the Parties and reflects the Parties' awareness that the laws, rules, regulations and markets for such environmental attributes are in an early stage of development and may undergo change. As a result, nothing in this Agreement shall be construed as a waiver of the rights of Authority or Customer concerning the ownership, availability, cost, and/or price of such attributes. In addition, not later than three (3) years after the effective date of this Agreement, the Parties shall meet and attempt to reach agreement on any amendments, revisions or additions to this Article XIV they find to be mutually satisfactory based on the information available at that time, provided that (i) neither Party shall be required to enter into any such amendment, revision or addition, and (ii) no such amendment, revision or addition shall be binding unless made in writing and duly approved by the Parties' respective governing bodies.

XV. Appointment of Customer Agent

Upon reasonable prior written notice to the Authority, Customer shall have the right to delegate to an agent any or all duties under this Agreement ("Customer's Agent") and the Authority acknowledges that such duties may be performed by Customer's

Agent. Such duties delegated to Customer's Agent may include the keeping of all records required by Authority, the payment of any or all amounts due to the Authority under this Agreement and any or all such other duties contained in this Agreement as may be specified by Customer; provided that the Customer may choose to assume and perform any or all of the duties previously delegated to Customer's Agent and provided further that nothing herein, including Customer's designation of such an agent, shall be deemed to be approval by the Authority of an assignment of any of Customer's duties and obligations under its Agreement with the Authority. Customer further reserves the right, on reasonable prior written notice to the Authority, to designate a different party as Customer's Agent at any time during the term of this Agreement.

XVI. Term and Termination of Service

Once initiated, service shall continue until the earliest of (a) termination by Customer with respect to all or part of its allocation upon ninety (90) days prior written notice, (b) termination by the Authority pursuant to the Rules upon required notice, or (c) April 30, 2032. Notwithstanding any provision to this Agreement to the contrary, the Authority may cancel service hereunder or modify the quantities of Firm Hydroelectric Power and Energy and/or Non-Firm Hydroelectric Energy allocated to Customer (a) if such cancellation or modification is required to comply with any ruling, order or decision of any regulatory or judicial body of competent jurisdiction (including any licensing or re-licensing order or orders of the Federal Energy Regulatory Commission or its successor agency), or (b) as otherwise provided herein or in the Rules.

XVII. Communications

The Authority acknowledges that each of the Neighboring State Customers has been appointed by the executive authority of each Designated State as that state's sole representative for all matters pertaining to this Agreement. Accordingly, the Authority agrees as follows:

(1) Before implementing any changes in procedures contemplated in this Agreement related to the sale of electricity, the Authority will notify the Customer for each such Designated State of the nature of and reasons for the proposed change and the date of its proposed implementation. In the absence of exigent circumstances, such notice shall be provided no fewer than sixty (60) days before the change is implemented.

(2) Any notification or communication required by paragraph (1) or by any other provision of this Agreement shall be provided in writing directly to the individual who has been designated by the Customer for each Designated State as the appropriate contact person, as set forth below:

[Name]

[Title]
[Organization]
[Address]
[phone #]
[e-mail address]

It shall be the responsibility of the individual designated above, and not the Authority, to provide the notification or communication required by paragraph (1) to the individual employed by each Customer in the highest executive or senior managerial position with direct responsibility for electric utility matters.

(3) Any notification or communication by the Customer regarding this Agreement shall be provided in writing directly to the individual in the position designated by the Authority as the appropriate contact person, as set forth below:

[Name]
[Title]
[Organization]
[Address]
[phone #]
[e-mail address]

XVIII. Legal or Regulatory Change

If at any time after the effective date of this Agreement there is any change to any law or regulation applicable to this Agreement, or to any tariff or rule of the NYISO or the RTO in which Customer is located, that substantially alters the contractual relationship between the Parties or the allocation of benefits hereunder, the Parties shall negotiate in good faith to determine whether any amendments, revisions or additions to this Agreement are necessary in order to maintain or restore the benefits of this Agreement to each Party as contemplated at the time of execution hereof. The Parties shall negotiate in good faith concerning any such amendments, revisions or additions to this Agreement, none of which shall be binding unless it is by agreement of the Parties in writing.

XIX. Applicable 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.

XX. Venue

Each Party consents to exclusive jurisdiction and venue of any state or federal 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.

XXI. Successors and Assigns

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, however, 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 in each case obtained, which consent shall not be unreasonably withheld.

XXII. Previous Agreements and Communications

This Agreement, together with the Relicensing Settlement Agreement, shall constitute the sole and complete agreement of the Parties hereto with respect to the matters herein set forth. Such agreement supersedes all previous agreements and communications between the Parties hereto, either oral or written, with reference to the subject matter of this Agreement.

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.

XXIII. Acceptance and Approvals

Upon approval of the Governor of the State of New York pursuant to Section 1009 of the Power Authority Act, and upon execution by the Parties, this Agreement, the provisions of which shall survive for the term hereof, together with the Service Tariffs and Rules both as they may be amended, shall constitute the contract between the Parties for Electric Service hereunder.

XXIV. 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 Federal Energy Regulatory Commission or a court of competent jurisdiction, such order shall not be deemed to invalidate the remaining terms or provisions hereof.

Notwithstanding the preceding paragraph, if any provision of this Agreement or the Relicensing Settlement 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 void and unenforceable.

XXV. Waiver

- a. 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.
- b. 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.

XXVI. 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 by email as a PDF file 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.

XXVII. Effectiveness of Agreement

This Agreement shall take effect on the later of May 1, 2017 or the date of its execution under Article XXII above.

CUSTOMER

BY _____

Authorized Officer's Title

Date _____

(Seal)

Attest by: _____

Accepted:

POWER AUTHORITY OF THE STATE OF NEW YORK

BY _____

Authorized Officer's Title

Date _____

(Seal)

Attest by: _____

Appendix A

I. ALLOCATION INFORMATION

Firm Hydroelectric Power and Energy Service pursuant to
Service Tariff No. SL-1. - X,000 kW (Contract Demand)

Non-Firm Hydroelectric Energy Service pursuant to
Service Tariff No. SL-2. - As available

II. DISTRIBUTING ENTITIES INFORMATION

Distributing Entities	Resale (Y/N)?
Village A	N
Village B	N
Village C	N
Village D	N
Village E	N
Village F	N
Village G	N
Village H	N
Village I	N
Village J	N

Appendix A

III. MONTHLY LOAD FACTORS – ADJUSTED ANNUALLY

Month	Weighted Average Load Factor - St. Lawrence 1/
Jan	xx.x%
Feb	xx.x %
Mar	xx.x %
Apr	xx.x %
May	xx.x %
Jun	xx.x %
Jul	xx.x %
Aug	xx.x %
Sep	xx.x %
Oct	xx.x %
Nov	xx.x %
Dec	xx.x %

1/ Per Agreement for the Sale of St. Lawrence Power & Energy to Neighboring States

Appendix B

NEW YORK POWER AUTHORITY RATE STABILIZATION RESERVE METHODOLOGY

The Rate Stabilization Reserve (RSR) is calculated consistent with Service Tariff SL-1 (Leaf 10 of 10) and SL-2 (Leaf 9 of 9) regarding the Flow Adjustment Computation (FAC). The calculation (an example of which is attached) is described below:

1. Calculate the total cost of service (CoS) for the Niagara/St. Lawrence projects.

Costs include: Operations and Maintenance, Indirect Overheads (Shared Services, Research and Development, debt service) and Capital Costs (using TOC¹ for equity funded and OC² for debt funded).
2. Reconciliation to the CoS by any excess capacity (UCAP) sales to the ISO.
3. Allocate costs to the demand function by multiplying the sum of the customers' billed demands by the preference demand charge, which has been inflated to include ancillary services production costs. This larger demand charge is used only for the purposes of the RSR.
4. Calculate the cost-based energy rate by dividing the remaining energy assigned costs by the annual metered generation.
5. Calculate the difference between the cost-based energy rate and the billed preference energy rate.
6. Multiply the difference in the rates by the actual annual billed preference energy sales to determine the annual change in the RSR.
7. Add the annual change to the RSR balance from the prior year-end to get the current year-end RSR balance.

Appendix B

8. If the current year-end balance is in excess of +/- \$25 million, the excess would be subject to a credit or a surcharge in the subsequent rate year. (See Service Tariff SL-1 (Leaf 10 of 10) and SL-2 (Leaf 9 of 9) for a description of the Flow Adjustment Computation (FAC)).

¹ Under the Trended Original Cost (TOC) method, straight-line depreciation is charged, but the depreciation charge is increased for inflation and the capital account is increased by an inflation factor. However, the Authority does not collect a return on its capital investment, *i.e.* it does not receive a real rate of return on its capital. The Authority made this method part of the *Auer* Settlement.

² Under Original Cost (OC) methodology, an asset or group of assets is depreciated over their useful lives on a straight-line basis (return of capital) and a return on capital is applied to the remaining value of the asset(s).



**NY Power
Authority**

President & Chief Executive Officer Report

Gil Quiniones

December 15, 2016

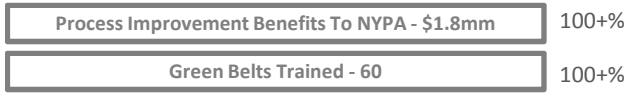
2016 Key Strategic Initiative Milestones

Key ● On track ● Some risk of missed deadline / will not be delivered in full ● Milestone will not be delivered ● Completed

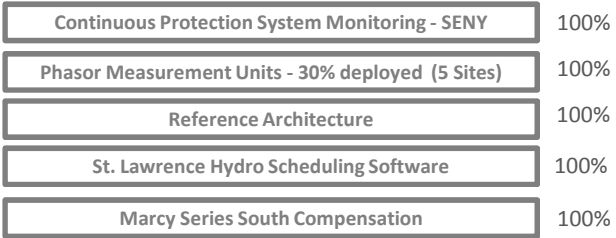
Customer Solutions



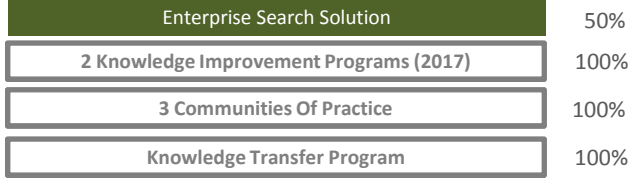
Process Excellence



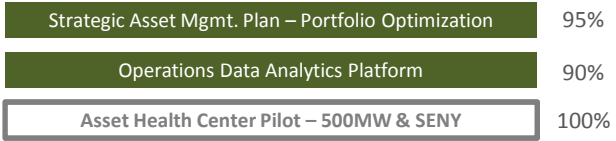
Smart G&T



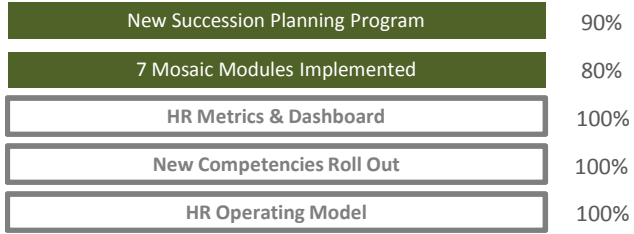
Knowledge Management



Asset Management



Workforce Planning



Canal Transfer Effort – Update

Operational transfer of the Canal Corporation (Canal) is on-track to occur on January 1st, 2017 (“Day 1”)



Office moves are in progress or have completed across Albany, Syracuse and Buffalo



Payroll testing successfully completed; go-live is scheduled for December 16th, 2016



Staffing is in place to support most Canal functions; contingency plans, utilizing contractors, have been enacted where necessary



A Transitional Service Agreement with Thruway is close to being finalized for areas of entanglement that cannot be separated ahead of Day 1












IT cutover activities are progressing without any major “showstoppers” expected



Contract assignment has been completed by the Procurement Team




NYPA Overall Performance

November 2016

Goal	Measure	Status	Year-To-Date 2016	
			Target	Actual
Maintain Infrastructure	Generation Market Readiness (%)		99.40	99.77
	Transmission System Reliability (%)		94.78	94.33
Financial Management	Debt Coverage (Ratio)		2.50	2.82
	O&M Budget Performance (\$ Millions)		433.7	397.5
Energy Services	MMBTU's Saved		401.4	349.9
	Energy Efficiency Investment in State Facilities (\$ Millions)		42.8	63.1
Workforce Management	Retention (# of Touchpoints)		750	1678*
Safety Leadership	DART Rate (Index)		0.78	0.97
Environmental Responsibility	Environmental Incidents (Units)		30	19

*Quarterly measure

Corporate Performance

Status	
	Meeting or Exceeding Target
	Below Target
	Significantly Below Target



**NY Power
Authority**

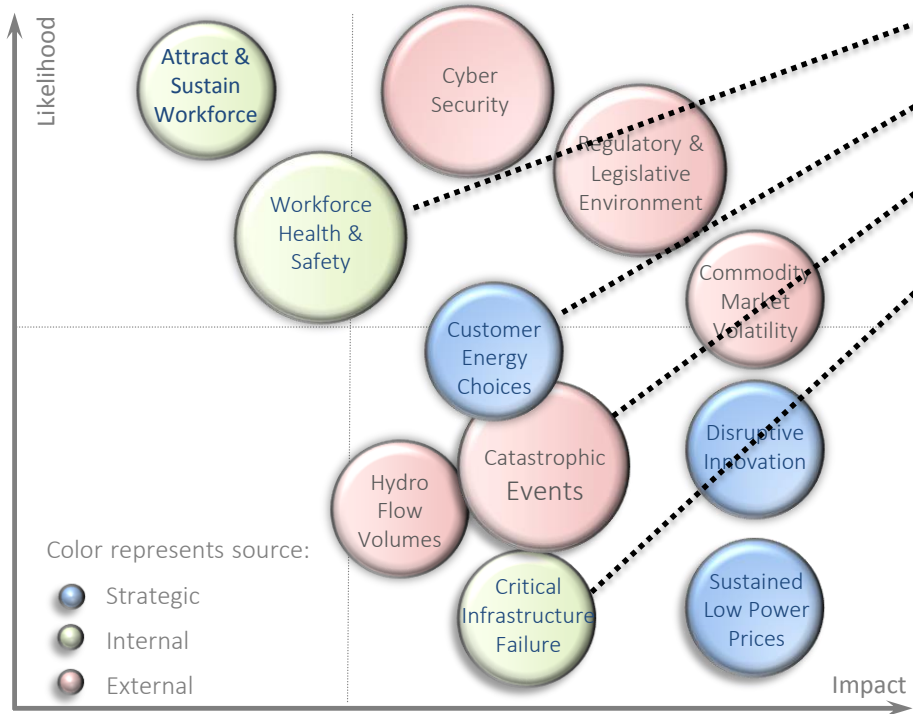
NYPA Risk Management

Soubhagya Parija

Chief Risk Officer, Senior Vice President

December 15, 2016

Top Enterprise Risks



Completed Action Plans Highlights

Workforce Health & Safety:

- Updated Health & Safety policies across NYPA.

Customer Energy Choices:

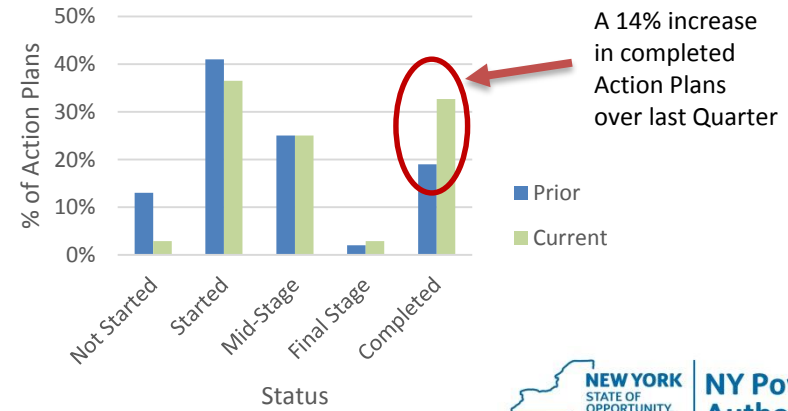
- Enhanced agility and streamlined communication to further align to customer preferences. Conducted surveys and reflect on lessons learned.

Catastrophic Event:

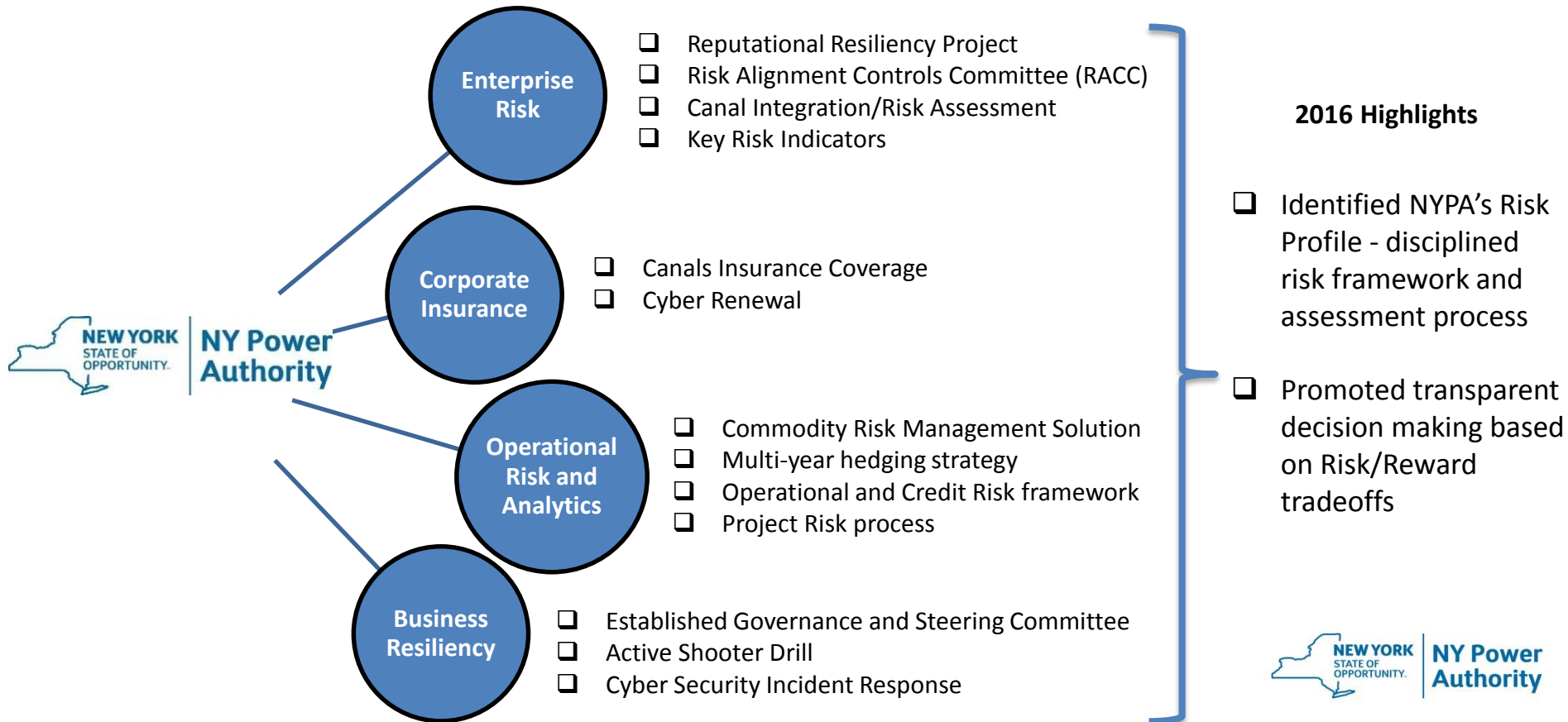
- Formalized mutual aid agreement discussions with other utilities.

Critical Infrastructure Failure:

- Utilized schematic design templates to perform a regimented review of protection systems to reduce the amount of errors across multiple sites.

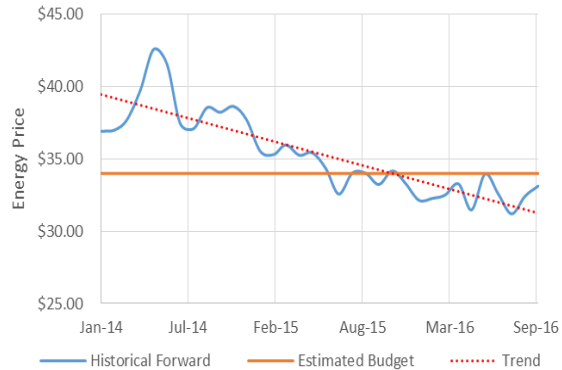


More Resilient NYPA

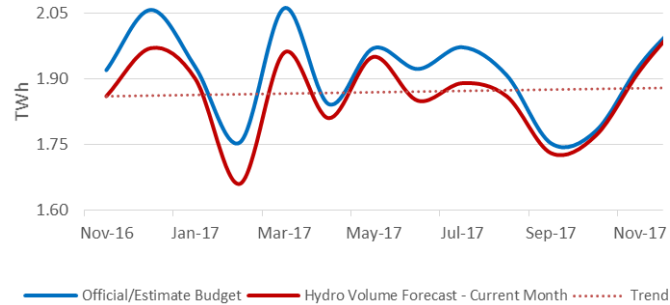


Key Risk Indicators Highlights

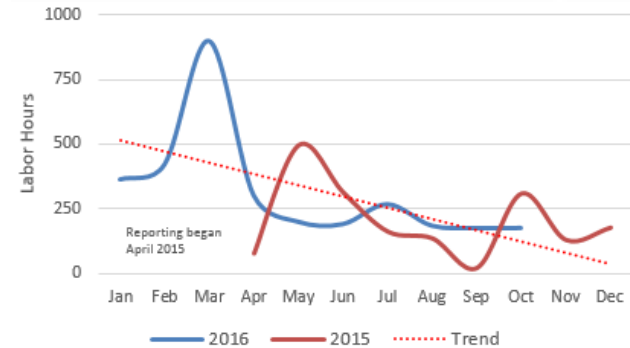
2017 Energy Pricing Trend



Hydro Volume Forecast



Critical Maintenance Hours



Key Insights

- Zone A energy prices continue to trend downward (the latest forecast is projecting an upward movement starting in 2021). Energy Resource Management and Risk Management proposed a multi-year hedging strategy to minimize the variability in financial results.
- Projected 2017 hydro volumes have declined for two consecutive months. ERM and Risk Management are evaluating financial products to reduce exposure to hydro volumetric uncertainty (RFP for hydro financial products expected in 1st Quarter of 2017).
- Recent changes to political climate may alter energy policies that may impact markets and legislation.



**NY Power
Authority**

Board of Trustees Meeting

Chief Operating Officer Report

Presented By:

Joseph F. Kessler PE

EVP & Chief Operating Officer

Performance Measures

Operations



Generation Market Readiness

99.76 v. 99.40

(actual v. target YTD)



Transmission Reliability

94.12 v. 94.75

(actual v. target YTD)

NYPA Overall



Environmental Incidents

16 v. 27

(actual v. target YTD)



Dart Rate

.84 v. .78

(actual v. target YTD)

Accomplishments - 2016

- NERC CIP v5 Compliant
- M&D Center Up & Running - Cornerstone of the ISOC
- SAMP
- Commissioned MSSC
- Installation of AIS Beacon



Look Ahead - 2017

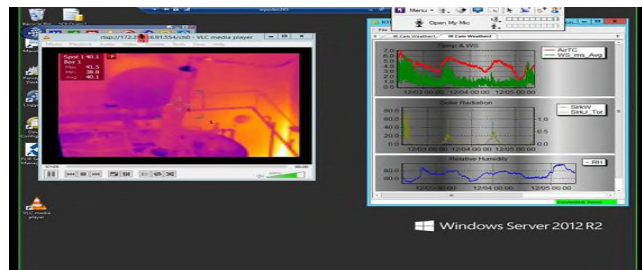
T-LEM



ISOC



Transformer Command & Control Center





**NY Power
Authority**

Chief Commercial Officer Report

Jill Anderson – Chief Commercial Officer, EVP - Energy Solutions

February 15, 2017

Commercial Ops: Wholesale

Contract & Market Revenue

\$2,016 MM v. \$2,289 MM
(actual v. budget October YTD)



12%

Market Context

\$33.54/MWh 2016 v. \$47.17/MWh 2015
(average monthly energy price October YTD)



29%

Fuel Costs

\$58.6 MM savings
(actual v. budget October YTD)

Commercial Ops: Economic Development



Transmission Business Development

Western NY: PSC Order Issued Directing NYISO to Proceed with Phase 2
Expect Project Selection in 2Q 2017

Eastern NY: NYISO Phase 1 Evaluation Completed
Next Steps PSC Order Confirming Need
Expect Project Selection in 1Q 2018



Economic Development *(inclusive of today's proposed actions)*

Recharge NY: 747.6 MW out of 910 MW allocated

All programs: 396,000 jobs, \$33 Billion capital committed

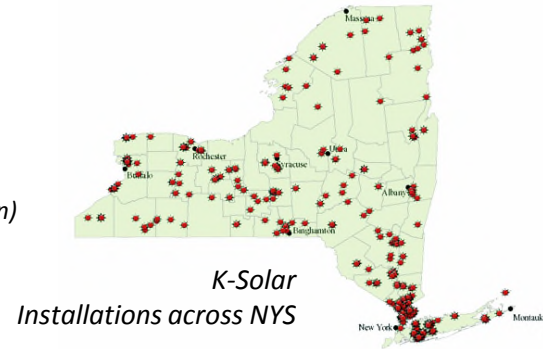
Commercial Ops: Customer

Energy Efficiency Implementation

Realignment of resources

\$140 MM in revenue target will be met (year end projection)

CES Business Plan updated



Grants & Initiatives

\$10.3 MM deployed to date in grants and initiative investments

NY Energy Manager: 1,140 buildings connected, with additional 60 expected by year-end

K-Solar: 44 contracts signed, 8 projects totaling 4.9 MW in construction by year-end

Overall net year-end: \$23.1MM invested in developing business opportunities

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	Syracuse Heat Treating Corporation	Syracuse	Onondaga	Central New York	NGRID	Provides heat treating services	474	236	25	0	25	\$1,000,000	7
	Central New York Region Sub-totals:							236	25	0	25	\$1,000,000	
2	Cox & Company, Inc.	Plainview	Nassau	Long Island	LIPA	Aerospace-related ice protection systems	1,000	466	196	30	226	\$2,500,000	7
	Long Island Region Sub-totals:							466	196	30	226	\$2,500,000	
3	PAR Technology Corporation	New Hartford	Oneida	Mohawk Valley	NGRID	Designs software systems for restuarants	760	350	200	0	200	\$4,800,000 ⁽¹⁾	7
	Mohawk Valley Region Sub-totals:							350	200	0	200	\$4,800,000	

Totals

1,052	421	30	451	\$8,300,000
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(1) These companies are also recommended for expansion-related allocations of RNY for separate and distinct job creation and capital investment commitments associated with proposed business expansions.

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	Calico Cottage, Inc.	Amityville	Suffolk	Long Island	LIPA	Manufacturer of fudge-making ingredients	800	500	73	5	\$13,000,000	⁽⁴⁾ 7
2	Modern Meadow, Inc.	Farmingdale	Suffolk	Long Island	LIPA	Biofabrication of animal-free leather	1,500	1,050	40	160	\$25,000,000	7
3	WHTB Glass LLC	Brookhaven	Suffolk	Long Island	LIPA	Manufacturer of architectural glass	3,300	2,310	0	143	\$18,900,000	7
	Long Island Region Sub-totals:							3,860	40	308	\$56,900,000	
4	PAR Technology Corporation	New Hartford	Oneida	Mohawk Valley	NGRID	Designs software systems for restaurants	300	210	200	30	\$1,100,000	⁽²⁾ 7
	Mohawk Valley Region Sub-totals:							210	0	30	\$1,100,000	
5	UltraCell Insulation, LLC	Lackawanna	Erie	Western New York	NGRID	Production of cellulose insulation	1,000	700	0	30	\$7,150,000	7
	Western New York Region Sub-totals:							700	0	30	\$7,150,000	

Totals

4,770	40	368	\$65,150,000
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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) These companies are also being recommended for retention-based RNY Power allocations 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) This applicant was previously approved for a retention-based RNY Power allocation. The base employment refers to the applicant's retained jobs; the majority 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	Beak & Skiff Holding Company, LLC	LaFayette	Onondaga	Central New York	NGRID	Production of fresh apple cider	94	46	59	0	\$250,000	(1)	7
	Central New York Region Sub-totals:												
								46	59	0	\$250,000		
2	Carolina Eastern - Crocker, LLC	Le Roy	Genesee	Finger Lakes	NGRID	Cornmeal grinding facility	90	46	2	0	\$100,000		7
3	Carolina Eastern - Crocker, LLC	Stafford	Genesee	Finger Lakes	NGRID	Custom blending of dry-bulk fertilizer	81	40	26	0	\$450,000		7
4	Iuvo Bioscience Operations, LLC	Rush	Monroe	Finger Lakes	NGRID	Pharmaceutical research and development	239	116	42	0	\$1,000,000		7
	Finger Lakes Region Sub-totals:												
								202	70	0	\$1,550,000		
5	Check-Mate International Products, Inc.	West Babylon	Suffolk	Long Island	LIPA	Manufacturer of high-precision tools	368	180	200	35	\$2,260,000		7
6	Comtech Telecommunications Corp.	Melville	Suffolk	Long Island	LIPA	Designs advanced communication systems	274	136	94	6	\$1,175,000		7
7	New Horizon Graphic, Inc.	Hauppauge	Suffolk	Long Island	LIPA	Commercial printing and finishing	280	140	41	0	\$500,000	(1)	7
8	Polygen Pharmaceuticals, Inc.	Edgewood	Suffolk	Long Island	LIPA	Manufacturer of generic pharmaceuticals	65	30	26	0	\$5,000,000	(1)	7
9	The Habco Corp.	Amityville	Suffolk	Long Island	LIPA	Cheese processing and packaging	275	120	40	0	\$1,500,000		7
10	V.E. Power Door Co., Inc.	Brentwood	Suffolk	Long Island	LIPA	Manufacturer of door and gate operators	40	20	28	0	\$560,000		7
	Long Island Region Sub-totals:												
								626	429	41	\$10,995,000		
11	Metal Solutions, Inc.	Utica	Oneida	Mohawk Valley	NGRID	Manufacturer of sheet metal	159	76	74	0	\$450,000		7
12	Munson-Williams-Proctor Arts Institute	Utica	Oneida	Mohawk Valley	NGRID	Regional fine arts center	544	176	102	0	\$500,000		7
13	NCI Group, Inc.	Rome	Oneida	Mohawk Valley	NGRID	Manufacturer of metal building components	161	80	80	0	\$400,000	(1)	7
14	Square Stamping Mfg. Corporation	Barneveld	Oneida	Mohawk Valley	NGRID	Metal stamping facility	158	76	26	0	\$250,000	(1)	7
	Mohawk Valley Region Sub-totals:												
								408	282	0	\$1,600,000		

Retention-Based Totals

1,282	840	41	\$14,395,000
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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)
15	Beak & Skiff Holding Company, LLC	LaFayette	Onondaga	Central New York	NGRID	Production of fresh apple cider	56	26	59	6	\$3,093,194	(1), (2)	7
16	Half in the Bag Brewery, LLC	Syracuse	Onondaga	Central New York	NGRID	Brewery for craft beers	90	46	0	6	\$498,612		7
17	LOOP Recycled Products of New York	Syracuse	Onondaga	Central New York	NGRID	Recycling center for paint products	250	126	0	20	\$300,000		7
	Central New York Region Sub-totals:							198	0	32	\$3,891,806		
18	Fontrick Door, Inc.	Batavia	Genesee	Finger Lakes	NGRID	Manufacturer of doors and windows	270	136	0	40	\$5,500,000		7
	Finger Lakes Region Sub-totals:							136	0	40	\$5,500,000		
19	New Horizon Graphic, Inc.	Hauppauge	Suffolk	Long Island	LIPA	Commercial printing and finishing	70	36	41	3	\$480,000	(1), (2)	7
20	Polygen Pharmaceuticals, Inc.	Edgewood	Suffolk	Long Island	LIPA	Manufacturer of generic pharmaceuticals	35	16	26	10	\$1,000,000	(1), (2)	7
21	Visual Millwork & Fixture Mfg., Inc.	Deer Park	Suffolk	Long Island	LIPA	Manufacturing and design of display products	240	120	40	15	\$6,495,000	(4)	7
	Long Island Region Sub-totals:							172	40	28	\$7,975,000		
22	Fusion Graphix, Inc.	Montgomery	Orange	Mid-Hudson	CHUD	Custom printing of promotional materials	35	16	6	2	\$110,000	(4)	7
	Mid-Hudson Region Sub-totals:							16	6	2	\$110,000		
23	NCI Group, Inc.	Rome	Oneida	Mohawk Valley	NGRID	Manufacturer of metal building components	500	250	80	80	\$10,355,000	(1), (2)	7
24	Square Stamping Mfg. Corporation	Barneveld	Oneida	Mohawk Valley	NGRID	Metal stamping facility	52	26	26	5	\$3,750,000	(1), (2)	7
	Mohawk Valley Region Sub-totals:							276	0	85	\$14,105,000		
25	Northwell Health, Inc.	Little Neck	Queens	New York City	CONED	Medical research and testing laboratory	1,796	596	230	21	\$48,224,456	(4)	7
	New York City Region Sub-totals:							596	230	21	\$48,224,456		

Expansion-Based Totals

1,394	276	208	\$79,806,262
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Retention & Expansion-Based Totals

2,676	1,116	249	\$94,201,262
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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 utilization.
- (4) There will be a base employment level associated with the applicant's RNY expansion-based allocation.

Line	Company	City	County	Economic Development Region	IOU	Description	Reason
1	Sole Devotion	Albany	Albany	Capital District	NGRID	Retail shoe store	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.
2	X3CNG Corp.	Bronx	Bronx	New York City	CONED	Compressed natural gas fueling station	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.
3	Valhalla, LLC	Buffalo	Erie	Western New York	NGRID	Retail coffee shop	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	Center for Development of Interest in Learning (CDOIL, Inc.)	Roosevelt	Nassau	Long Island	LIPA	Educational research and teacher training	Specific entities within the facility that would use and receive the benefit of an RNY allocation would not have a utility account or utility grade demand meter, and therefore it would not be possible for the utility to collect demand and usage data from specific users of RNY Power.
2	Beaverkill Farm, Inc.	Saugerties	Ulster	Mid-Hudson	CHUD	Horse boarding farm	The applicant's power demand is insufficient to support an award of RNY Power and to meet other program requirements, and a RNY Power allocation based on such power demand is unlikely to have a meaningful impact on the applicant's operating costs.
3	Catskill Interpretive Center	Mount Tremper	Ulster	Mid-Hudson	NYSEG	Visitor center for Catskills region	The applicant's power demand is insufficient to support an award of RNY Power and to meet other program requirements, and a RNY Power allocation based on such power demand is unlikely to have a meaningful impact on the applicant's operating costs.
4	Edelweiss Dairy, LLC	Freedom	Cattaraugus	Western New York	Not Applicable	Dairy farm	The applicant is served by a municipal electric utility which is not in a position to accept and account for RNY Power to individual customers. In addition, the applicant already enjoys competitive electric rates by virtue of the utility's receipt of low-cost NYPA hydropower.

(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 "5c iii-F"
 December 15, 2016**

Line	Company	City	County	Economic Development Region	IOU	Description	Reason
1	Catskill Center for Conservation and Development	Arkville	Delaware	Southern Tier	NYSEG	Environmental preservation & economic development	The applicant has been unresponsive to requests by staff for additional information, preventing a complete analysis of the application.

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	43North, LLC	Buffalo	Erie	Western NY	Business Plan Competition	Innov./Entrepreneur	\$2,000,000	\$15,300,000	N/A	N/A
2	PostProcess Technologies, LLC	Buffalo	Erie	Western NY	Machinery & Equipment	Business Investment	\$90,000	\$602,500	12	9
3	CL New Co., Inc. dba Campus Labs	Buffalo	Erie	Western NY	Building Renovation	Business Investment	\$400,000	\$4,130,000	101	75
Total:							\$2,490,000	\$20,032,500	113	84

Total Jobs Created & Retained: 197

Western NY Power Proceeds Allocation Board

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 operational relationships; promote the attractiveness of WNY as a hub for global trade.

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.

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- 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.
 9. The extent to which an award of Fund Benefits may result in a competitive disadvantage for other business in the State.
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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.

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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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Western NY Power Proceeds Allocation Board

Western New York Economic Development Fund Recommendation Memo

EXHIBIT 5c iv-C-1

Applicant Name:	43 North LLC ("43North")	REDC Region:	Western New York
Project Type:	Innovation/Entrepreneur Development	County:	Erie & Niagara
Industry:	Innovation/Entrepreneur Development	Locality:	City of Buffalo
Amount Requested:	\$2,000,000	Start Date:	November 1, 2016
		Finish Date:	December 31, 2019 (including incubator support)

RECOMMENDED OFFER

Recommended Total Award:	Up to \$ 2,000,000 (for 2017 and 2018 competitions)
Total Project Cost:	Approximately \$15,300,000 (for 2017 and 2018 competitions)
% of Project Cost Recommended:	Up to 13 %

PROJECT BUDGET (Proposed by Applicant)

Use of funds	Amount	Source of Funds	Amount
Salaries & Wages	\$2,100,000	WNY EDF (for 2017 & 2018 competitions)	
Rent/Lease, Incubator Space	\$200,000	Up to	\$2,000,000
Marketing, Finals Weeks, Travel, Professional Services, Operating Cost of Incubator	\$3,000,000	Committed: ESD	\$10,000,000
Awards to Winners (for 2017 & 2018 competitions)	\$10,000,000	Potential: Various Sponsors	\$3,300,000
Total:	\$15,300,000	Total:	\$15,300,000

REGIONAL IMPACT MEASUREMENTS

Job Commitments:	The Funding Track under which the application was submitted does not require job-related commitments. Nevertheless, supporting this project is expected to have the effect of preserving approximately 5 full time positions.
Average Salary of Jobs:	N/A
Indirect Jobs Created	TBD based on competition winners establishing a long term presence (greater than one year) in the Buffalo-Niagara region.



Western NY Power Proceeds Allocation Board

Western New York Economic Development Fund Recommendation Memo

EXHIBIT 5c iv-C-1

Other Impact	Enhanced venture capital investment in the region.		
PROJECT DESCRIPTION (Adapted from Application)			
<p>43North LLC would continue to operate the world’s largest business plan competition in 2017 and 2018 by offering up to \$5M in awards in each of two years (\$10M total) to multiple business winners. The program would include global outreach through social media, in-person roadshows, and use of traditional media to promote 43North and business investment in the Buffalo-Niagara region. In addition, 43 North will incubate winners from past competitions in their Buffalo space and in collaboration with other local entrepreneur support services from organizations like Buffalo Niagara Partnership, Buffalo Niagara Enterprise, Leadership Buffalo, University at Buffalo, and others.</p> <p>43North will also host a global audience during “43North Week” for the 2017 and 2018 competitions, which are held each year when the winners of the business idea competition are selected.</p>			
OTHER ECONOMIC DEVELOPMENT BENEFITS RECEIVED			
ESD: (Feb 2015)	\$1,000,000	NYPA :	\$
(April 2016)	\$1,040,000		
(October 2016)	\$10,000,000		
IDA:	\$	Other:	\$
PREVIOUS STATE ASSISTANCE OFFERED OR PROVIDED			
TYPE	AMOUNT	STATUS	
WNY Fund Proceeds	\$17,418,000 of 43North for 2014, 2015 and 2016	Awarded and partially disbursed	



Western NY Power Proceeds Allocation Board

Western New York Economic Development Fund Recommendation Memo

EXHIBIT 5c iv-C-1

BASIS FOR RECOMMENDATION (Adapted from Application)

Continuing the business plan competition for a fourth and fifth year aligns with the entrepreneurial strategy of the Western New York Regional Economic Development Council and Governor Cuomo's Buffalo Billion Investment Development Plan. 43North is a catalyst for entrepreneurship and business investment in Western New York, attracting entrepreneurs and venture capital investment to Buffalo from around the world as well as enhancing Buffalo's image as an attractive place for start-up businesses to be located.

The first year (2014) of the Launch NY/43North business competition succeeded in achieving significant positive media impact for Buffalo locally and nationally, with over 301 articles written, including in Forbes, Business Insider, and Fortune Magazine. In addition, 43North attracted over 2,600 qualified applicants to the competition from every U.S. state and 96 countries, demonstrating that Buffalo can be an attractive location for start-up businesses. The competition successfully held a "43North Week" event to showcase the finalists and awarded 11 winners. Over 30 start-ups also participated in the Bright Buffalo start up forum.

The second year (2015) of the business plan competition harnessed momentum from the first year of the competition. The 2015 roadshow took the team to 19 North American cities, with additional representation in India which culminated in over 3,000 qualified applicants from 50 states, nine Canadian provinces, and 117 countries. 110 of those applicants moved up as semifinalists. Over the next several weeks, each semifinalist team took part in a live video pitch with a team of volunteer judges final awards were made in late October. There have been 20 million social media impressions and 200+ media hits including New York Times, the Globe & Mail, Huffington Post and the Buffalo News.

The third year (2016) of the business plan competition generated over 500 qualified startup submissions in less than three months. The road show took the 43North team to over 50 stops throughout North America, India and Israel. And in 2016 there was another increase in women registrants for the business idea competition as they comprised 27 percent of the applicant pool.

The continuation of this program has the potential to result in creating several direct new starts ups in Buffalo, including "trailing" semi-finalists who choose to start their business and venture capitalists who invest in Buffalo due of the pool of growing start-ups. This in turn could catalyze direct and indirect job growth, and aligns with the WNYREDC to support entrepreneur development.



Western NY Power Proceeds Allocation Board

Western New York Economic Development Fund Recommendation Memo

EXHIBIT 5c iv-C-1

The Buffalo Niagara community has demonstrated tremendous support for this program by providing in-kind marketing and event support services from the Buffalo Niagara Enterprise. In addition many area business and economic development partners (including Insyte, UB STOR and CEL and Launch NY) provided on-going mentoring support services to semi-finalists and competition winners. Other area organizations including the Buffalo Niagara Partnership and Leadership Buffalo have come together to develop programs to provide personal and business support to the competition winners. Going forward, 43North will continue to seek collaborative support from area mentors, economic development partners and funders to provide optimal support to competition winners helping enhance its growth in Buffalo.

DISBURSEMENT TERMS

It is anticipated that Fund Benefits would be used to reimburse the applicant for working capital including, but not limited to, personnel, marketing, incubator services and overhead (approx. \$1,000,000 per year).

It is anticipated that Fund Benefits would be disbursed as follows, subject to final terms and conditions provided for in the Fund Benefits Agreement (“FBA”) between the New York Power Authority (“NYPA”) and the applicant:

1. Annual Operating Expense Funding

- a. Initial advance of up to \$500,000 annually for operating expenses disbursed at a time or times to be determined after execution of an FBA between NYPA and 43North.
- b. All subsequent advances and/or disbursements for operating expenses made contingent upon 43North (i) raising and receiving funds from other sources (e.g., sponsorships and donors) in amounts to be determined by NYPA, and (ii) achieving other milestones to be determined by NYPA.

2. Miscellaneous

It is anticipated that the FBA would include the following terms and conditions among others:

- a. Pre-approval by NYPA of: 43North’s marketing plan and budgets.
- b. Pre-approval by NYPA of the process for selecting finalists and winners, the final number of awards and the final amount of individual awards.
- c. Pre-approval by NYPA of competition criteria.
- d. Annual written reports to NYPA which address the following information at a minimum:



Western NY Power Proceeds Allocation Board

Western New York Economic Development Fund Recommendation Memo

EXHIBIT 5c iv-C-1

- Number, name and amount of prizes awarded to each of company.
 - Marketing impact – positive media hits about 43North and WNY.
 - Status of all prior 43North winners, including location, number of jobs and other funds raised each year following award by 43North.
 - Other funds (including sources and amounts) raised to support 43North.
- e. Additional reports to address specific issues as NYPA may require.
- f. That 43North require winners to agree to certain conditions to be determined by NYPA.
- g. 43North shall provide updates and solicit input from NYPA, and its designees, on no less than a quarterly basis.
- h. Pre-approval by NYPA of certain of 43North's expenditures.

The competition will be held in 2017 and 2018 with a total of up to \$10,000,000 in prizes awarded. All winners would be offered incubator space and support services and be required to locate their business in Western New York for at least one year following completion of the competition.



Western NY Power Proceeds Allocation Board

Western New York Economic Development Fund Recommendation Memo

EXHIBIT 5c iv-C-2

Applicant Name:	PostProcess Technologies LLC ("PPT")	REDC Region:	Western New York
Project Type:	Business Investment	County:	Erie
Industry:	Post processing of 3-D printed parts	Locality:	Buffalo
Amount Requested:	\$120,500	Start Date:	December 2016
		Finish Date:	August 2017
RECOMMENDED OFFER			
Recommended Total Award:	\$90,000		
Total Project Cost:	\$602,500		
% of Project Cost Recommended:	15%		
PROJECT BUDGET (Proposed by Applicant)			
Use of funds	Amount	Source of Funds	Amount
Machinery + Equipment	\$602,500	WNY EDF	\$120,500
		Cash Equity	\$482,000
Total:	\$602,500	Total:	\$602,500
REGIONAL IMPACT MEASUREMENTS			
Job Commitments:	Applicant will retain 12 full time equivalents ("FTE") and create 9 FTE positions over seven years.		
Average Salary of Jobs:	\$60,000		
Indirect Jobs Created			
Other Impact			



Western NY Power Proceeds Allocation Board

Western New York Economic Development Fund Recommendation Memo

EXHIBIT 5c iv-C-2

PROJECT DESCRIPTION (Adapted from Application)

PPT is an early stage company that has developed patent-pending high frequency surface machines, detergents, abrasives, polishers and other agents to automate the finishing of 3-D printed parts, currently conducted through manual approaches. Its method delivers consistent results, is scalable and removes post-processing bottlenecks thereby providing significant productivity gains in the form of reduced labor costs and process times. As demand for 3-D printed metal parts grows manufacturers are seeking efficient, cost effective methods for meeting large scale production. PPT’s line of machines can accommodate more than 1,200 different 3-D print materials and today it is working with customers representing a variety of industries including automotive, aerospace, dental, defense, medical and manufacturing.

PPT is requesting fund benefits to purchase demonstration equipment for a training and benchmarking lab that will help promote sales for finishing large metal parts. Effective sales approaches require PPT to demonstrate the productivity improvement gains possible as compared to current and expensive manual methods that rely on picks, brushes, wires and sanding to finish products. Having large surface finishing and support removal machines in house will significantly improve turnaround times, allow for more customer research and development and growth that keeps pace with a rapidly developing industry.

PPT is a Start-Up NY participant and operates from 1170 Main Street in Buffalo where it warehouses products and test machines that are manufactured locally. It is co-located with the Olmsted Center for Sight and hires the visually impaired to assist in helping with media packaging and machine shipping and recently running machines and finishing parts.

PPT looks to make WNY a 3-D manufacturing hub and is working with UB and other local universities to develop course work and degrees that allow them to hire key additive manufacturing (3-D), mechanical, chemical, process and application engineering talent at attractive salaries and conduct ongoing research & development as printer technology changes, new input materials are used and post processing methods and systems emerge so that PPT can remain an industry leader.

OTHER ECONOMIC DEVELOPMENT BENEFITS RECEIVED

ESD:	Start-Up NY	NYS Office of Community Renewal:	N/A
Economic Dev. Loan:	N/A	Other:	

PREVIOUS STATE ASSISTANCE OFFERED OR PROVIDED

TYPE	AMOUNT	STATUS
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Western NY Power Proceeds Allocation Board

Western New York Economic Development Fund Recommendation Memo

EXHIBIT 5c iv-C-2

N/A	\$	
BASIS FOR RECOMMENDATION (Adapted from Application)		
<p>PPT is a small, early stage company that is a first mover of automated technology for the post processing of 3-D manufactured parts. It has ambitious plans that include making WNY a 3-D manufacturing hub but currently requires significant amounts of working capital to sustain operations, attract talent and maintain competitive position as sales ramp up.</p> <p>PPT recently hired an outside CEO with a demonstrated track record for driving significant growth in two emerging technology companies. To position the company to compete in the emerging 3-D printed parts industry PPT will need to maintain an aggressive growth trajectory that calls for adding a substantial number of employees. An award of fund benefits will allow PPT to deploy existing financial resources to meet working capital needs, add jobs to support its strong growth objectives and continue establishing its strong market position.</p> <p>The project aligns well with REDC strategies and other regional support for the 3-D industry, such as the area's universities and the recent addition of a large 3-D printer installed at Buffalo Manufacturing Works.</p>		
ANTICIPATED DISBURSEMENT TERMS		
<p>Fund Benefits would be used to reimburse the applicant for a portion of costs associated with new machinery and equipment. It is anticipated that funds will be disbursed in arrears in a manner that is proportionate to the total for eligible expenses. 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 \$600K and is compliant with job commitments.</p>		



Western NY Power Proceeds Allocation Board

Western New York Economic Development Fund Recommendation Memo

EXHIBIT 5c iv-C-3

Applicant Name:	CL New Co., Inc. dba Campus Labs ("Campus Labs")	REDC Region:	Western New York
Project Type:	Business Investment	County:	Erie
Industry:	College Data Analytics Software	Locality:	Buffalo
Amount Requested:	\$400,000	Start Date:	November 2016
		Finish Date:	March 2017
RECOMMENDED OFFER			
Recommended Total Award:		\$400,000	
Total Project Cost:		\$4,130,000	
% of Project Cost Recommended:		10%	
PROJECT BUDGET (Proposed by Applicant)			
Use of funds	Amount	Source of Funds	Amount
Hard Costs	\$2,765,000	WNY EDF	\$400,000
Furniture & Fixtures	\$400,000	Developer	\$2,350,000
Equipment	\$320,000	Cash Equity	\$970,000
Training	\$250,000	Developer (Potential)	\$410,000
Demolition	\$160,000		
Architectural Design	\$150,000		
Soft Costs	\$85,000		
Total:	\$4,130,000	Total:	\$4,130,000
REGIONAL IMPACT MEASUREMENTS			
Job Commitments:	Applicant will retain 101 full time equivalents ("FTE") and create 75 FTE positions over five years.		
Average Salary of Jobs:	\$72,000		
Indirect Jobs Created			
Other Impact			



Western NY Power Proceeds Allocation Board

Western New York Economic Development Fund Recommendation Memo

EXHIBIT 5c iv-C-3

PROJECT DESCRIPTION (Adapted from Application)

In 2001, Campus Labs (formerly Student Voice) was formed by two SUNY Buffalo students who won a business plan competition for their idea to form a company and develop software to collect information from students that could be used to impact programs and services. Since that time, Campus Labs has evolved from serving one campus to over 1,000. Campus Labs quickly became the leading platform and service provider for assessment in higher education. Campus Labs provides the only specialized, comprehensive assessment program that combines data collection, reporting, organization, and campus-wide integration.

In 2012, Campus Labs was acquired by Higher One, Inc., located in New Haven, CT. Higher One was founded by three Yale students to streamline critical campus business office processes for colleges and universities and serves over 830 campuses across the country. Higher One grew Campus Labs' revenue at a compounded annual growth rate of ~21%, however the executive team recognized that its core expertise was in serving college business offices and made plans to divest Campus Labs. In October, 2015 Higher One reached an agreement to sell Campus Labs to Leeds Equity Partners for approximately \$91 million cash.

After being acquired for a second time and to accommodate plans for continued growth Campus Labs local founders are pursuing a long term presence by locating in more efficient space in Western New York. Campus Labs has identified a mostly vacant, underutilized building located at 298 Main Street in downtown Buffalo as ideal for establishing its local headquarters. The building is situated in the central business district, but currently lacks street presence and urban activity due to its underutilization. Renovations will include floor plan and electrical system upgrades to modernize commercial space and facilitate software development activities and the addition of an internal courtyard structure to allow for improved circulation. The building has been identified by the City's Office of Strategic Planning as attractive for redevelopment and would be transformed into a high-tech hub with Campus Labs as the anchor tenant.

OTHER ECONOMIC DEVELOPMENT BENEFITS RECEIVED

ESD:	\$2,000,000 Excelsior	NYS Office of Community Renewal:	N/A
Economic Dev. Loan:	N/A	Other:	N/A

PREVIOUS STATE ASSISTANCE OFFERED OR PROVIDED

TYPE	AMOUNT	STATUS
N/A	\$	



Western NY Power Proceeds Allocation Board

Western New York Economic Development Fund Recommendation Memo

EXHIBIT 5c iv-C-3

BASIS FOR RECOMMENDATION (Adapted from Application)

Approximately 15 years ago Campus Labs was created and began growing and innovating in Buffalo with the assistance of local stakeholders. Since then the value of the business has grown such that it was acquired two times since 2012. To some, it serves as an anchor for the growth of Buffalo's technology ecosystem. An award of fund benefits helps Campus Labs to maintain a presence in its birthplace, creates potential to significantly impact Buffalo by reviving a nearly vacant building in the City's central business district, supports the addition of new housing, creates walkability, facilitates the use of alternative transportation modes and offers job retention and creation at very attractive salaries.

ANTICIPATED DISBURSEMENT TERMS

Fund Benefits would be used to reimburse the applicant for a portion of costs associated with the construction portion of the project. It is anticipated that funds will be disbursed in arrears in a manner proportionate to the total for eligible expenses. 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 \$4.1 million and is compliant with job commitments.

Western New York Economic Development Fund Update¹

The Fund		
<i>this</i>	Total Deposits to the Fund to Date:	\$41,031,000
<i>plus</i>	Total Interest Earned on Deposits to Date:	\$156,909
=	Total Funds Deposited:	\$41,187,909
Expenditures		
<i>this</i>	Total Funds Deposited:	\$41,187,909
	Total Administrative Expenses Withdrawn:	\$0
	Disbursements to Grantees:	(\$19,218,524)
<i>plus</i>	Total Expenditures:	(\$19,218,524)
=	Current Fund Balance:	\$21,969,384
Awards		
<i>this</i>	Total Funds Deposited:	\$41,187,909
	Standard Projects:	\$29,464,998
	Energy Related Projects ² :	\$3,128,320
<i>minus</i>	Total Fund Benefits Approved by the Trustees³:	\$32,593,318
=	Total Fund Benefits Available to be Awarded by the Trustees⁴:	\$8,594,591
Energy-Related Projects		
<i>this</i>	Minimum Amount (15%) of the Fund Dedicated to Energy-Related Projects:	\$6,154,650
<i>minus</i>	Total Awards (8%) Made for Energy-Related Projects to Date (not including today):	\$3,128,320
=	Fund Benefits Currently Available to be Awarded for Energy-Related Projects Only:	\$3,026,330
Today's Recommendations		
<i>this</i>	Standard Projects:	\$2,490,000
<i>plus</i>	Energy-Related Projects or Project Components:	\$0
=	3 Total Recommendations Before the Board Today:	\$2,490,000
Expansion Power ("EP") and Replacement Power ("RP") Summary		
<i>this</i>	Estimated Unallocated EP and RP to Date (MW):	119
<i>plus</i>	Estimated Allocated but Unused Hydropower to Date (MW) ⁵ :	35
=	Total Estimated Unutilized EP and RP to Date (MW)⁶:	154

¹ The "Fund", known as the "Western New York Economic Development Fund", is created and administered by the New York Power Authority ("NYPA"). It is funded with the aggregate excess of revenues ("Net Earnings") received by NYPA from the sale of Expansion Power ("EP") and Replacement Power ("RP") produced at NYPA's Niagara Power Project that is sold in the wholesale energy market over what revenues would have been received had such Power been sold on a firm basis to an eligible EP or RP customer.

² As defined by the Western New York Power Proceeds Allocation Act, a minimum of 15% of Fund Benefits shall be dedicated to "energy-related projects, programs and services". In accordance with EDL § 189-a(6), "energy-related projects, programs and services" means: (1) energy efficiency projects and services; (2) clean energy technology projects and services; (3) high performance and sustainable building programs and services; and (4) the construction, installation and/or operation of facilities or equipment done in connection with any such projects, programs or services.

³ Funds awarded to applicants to the Fund who are recommended for an award by the WNYPPAB and approved by the NYPA Trustees are known as "Fund Benefits." Disbursement of Fund Benefits is subject to satisfaction of certain terms and conditions.

⁴ Total Fund Benefits Available to Be Awarded is calculated as Total Funds minus the sum of Total Fund Benefits Awarded and Total Administrative Expenses Withdrawn.

⁵ The NYPA Trustees may allocate EP or RP to eligible companies. Such customers may use the entire allocation, or such customers may "take down" only a portion of the allocation based on their needs at the time. EP and RP that is unallocated, or that is allocated but not taken down, is eligible to be used for WNYEDF "Net Earnings".

⁶ Unutilized EP and RP consists of an estimate of both unallocated hydropower and allocated hydropower that has not been taken down by customers.

WNYEDF Awards by County ⁷

Trustee Date (Multiple Items)

County	Company	Trustees Approvals (\$)
Erie	425 Michigan Ave, LLC	\$500,000
	Coolture	\$300,000
	Eden Valley Growers	\$80,000
	Field & Fork Network	\$166,912
	Ford Motor Company	\$1,000,000
	Forest Lawn Heritage Foundation	\$150,000
	Innomotive Solutions Group LLC	\$150,000
	Launch NY	\$5,418,000
	Living Green Insulation Products and Services, LLC	\$165,570
	Michigan Street African American Heritage Corridor Commission, Inc.	\$250,000
	Nexus Natural Gas LLC	\$570,000
	OSC Manufacturing & Equipment Services, Inc.	\$750,000
	PLS III LLC dba We Care Transportation Services	\$1,000,000
	Visit Buffalo Niagara	\$250,000
	43North LLC	\$6,000,000
	Explore and More...A Childrens Museum	\$1,700,000
	Buffalo Niagara Enterprise	\$65,836
	Amos Zittel & Sons	\$380,000
	D'Youville College	\$400,000
	Martin House Restoration Corporation	\$700,000
General Mills	\$500,000	
Buffalo Arts and Technology Center	\$380,000	
43 North LLC (II)	\$6,000,000	
Erie Total		\$26,876,318
Genesee	Yancy's Fancy, Inc.	\$500,000
Genesee Total		\$500,000
Niagara	Aquarium of Niagara	\$1,750,000
	Diversified Manufacturing, Inc.	\$450,000
	Global Outreach Mission, Inc.	\$154,500
	Niagara University	\$250,000
	Washington Mills	\$140,000
	NFIA Stakeholders Group, Inc.	\$24,750
	The WNY Women's Foundation, Inc.	\$100,000
	Cambria Asphalt Products	\$72,750
	Borderworx Logistics, LLC	\$285,000
	Tulip Manufacturing	\$1,000,000
	Niagara University (II)	\$500,000
	NFIA Stakeholders Group, Inc. (II)	\$90,000
	Platters Chocolates	\$200,000
Niagara Falls National Heritage Area	\$200,000	
Niagara Total		\$5,217,000
Grand Total		\$32,593,318

O&M 2017 - Budget by Organization

Exhibit 5d i-A: 1 of 4

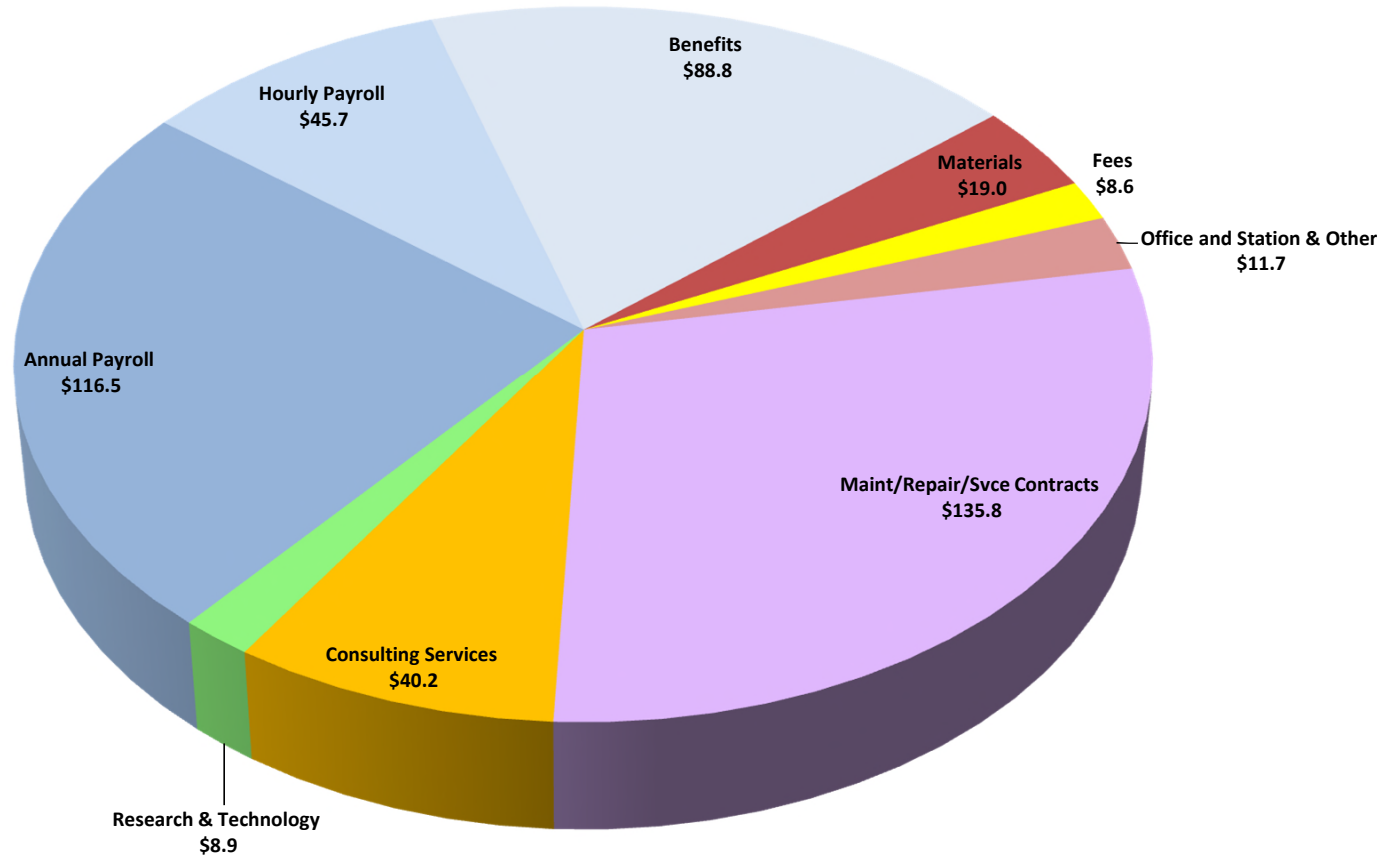
(\$000's)

	<u>2017</u> <u>Budget</u>		<u>2017</u> <u>Budget</u>
EXECUTIVE OFFICE		ENERGY MARKETING & BUSINESS DEVELOPMENT	
Executive	1,557.9	Energy Efficiency	500.0
Law	9,091.3	Economic Development	464.6
Internal Audit	4,504.8	Market Analysis & Administration	15.0
Corporate Affairs	11,960.4	NY Energy Manager	0.0
Risk Management	<u>5,043.5</u>	Integrated Grid	0.0
Office Total	32,157.8	Customer Energy Solutions	<u>0.0</u>
COMMERCIAL OPERATIONS		Office Total	979.6
SVP Commercial Operations	1,249.9	OPERATIONS	
Project & Business Development	3,614.4	Operations Headquarters	33,371.1
Energy Resource Management	<u>1,744.9</u>	Blenheim-Gilboa	22,440.2
Office Total	6,609.3	500 MW	34,468.8
BUSINESS SERVICES		Flynn	7,987.7
EVP & CFO Business Services	622.0	SENY	6,856.9
Budgets & Business Controls	2,562.4	SCPP	18,905.5
Controller	5,910.2	Niagara	62,834.7
Finance	694.9	St. Lawrence	37,386.6
Financial Planning	985.5	Small Hydros	13,721.1
Treasury	1,388.4	Transmission Lines	65,994.2
Procurement	9,913.7	Astoria Energy II O&M	<u>967.3</u>
Strategic Management	1,815.0	Office Total	304,934.2
Enterprise Excellence	<u>2,676.1</u>	Recharge New York	2,553.8
Office Total	26,568.2	Research & Development	8,924.0
INFORMATION TECHNOLOGY		Total before Lease/Invest.	440,958.3
Cyber Security	902.9	Eliminations & Adjustments	34,251.5
Information Technology	<u>29,301.3</u>	Astoria Energy II Lease	28,206.0
Office Total	30,204.2	Grand Total	503,415.7
ENTERPRISE SHARED SERVICES			
SVP Enterprise Shared Services	1,201.4		
VP Enterprise Shared Services	373.3		
Human Resources	11,894.0		
Knowledge Management	1,619.0		
Corporate Support Services	10,206.7		
Fleet Management	1,458.5		
Real Estate	607.8		
Chief Diversity Officer	<u>666.5</u>		
Office Total	28,027.2		

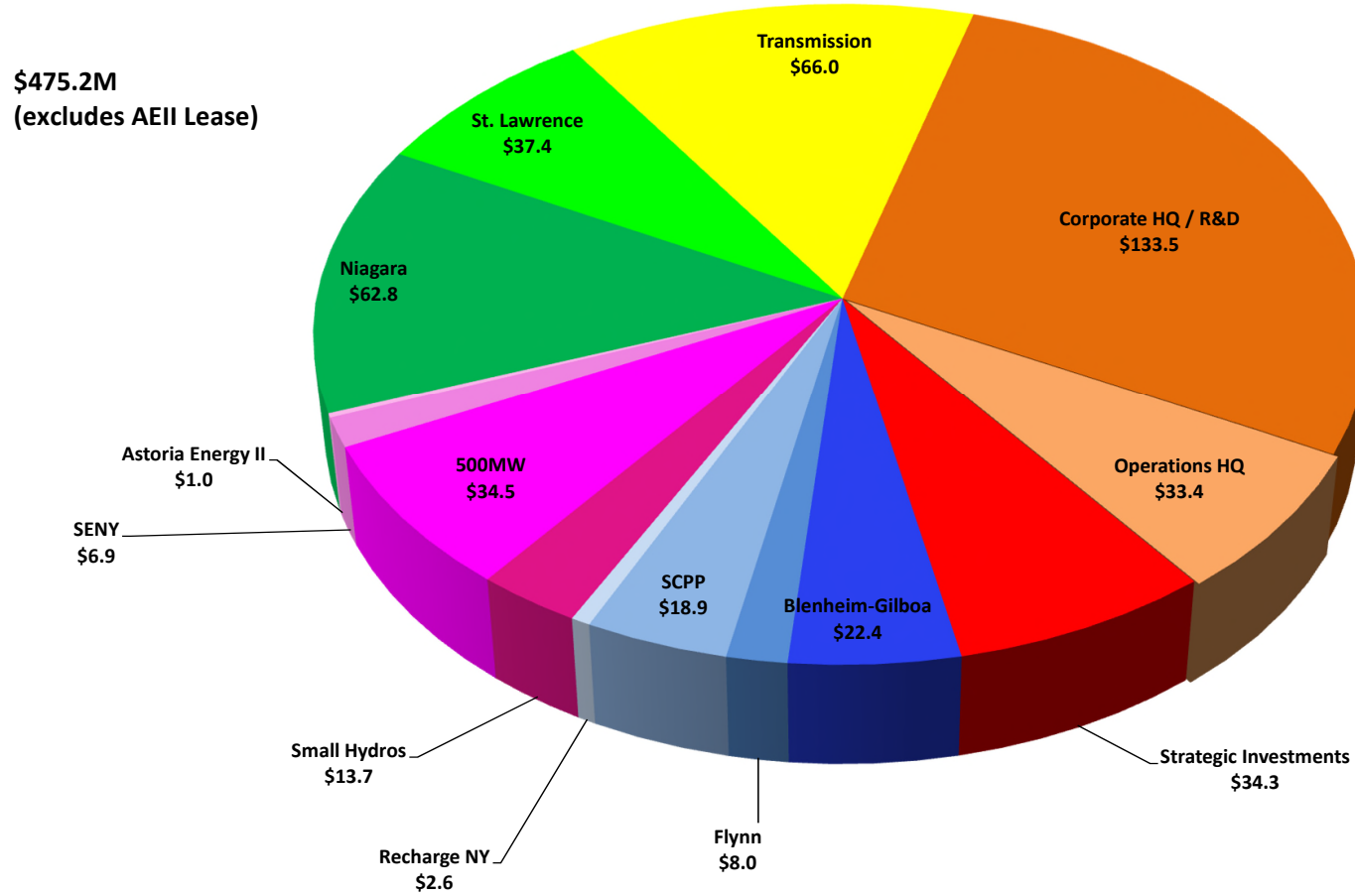
O&M: 2017 Budget By Cost Element (\$millions)

Exhibit A: 2 of 4

\$475.2M
(excludes AEII Lease)



O&M: 2017 Budget By Facility (\$millions)



* Astoria does not reflect annual Lease payments

O & M: Headcount 2017

Headquarters	<u>2017 Request</u>
* Executive Offices	170
Commercial Operations	55
Business Services	197
Human Resources & Enterprise Shared Services	109
Information Technology	130
Economic Development & Energy Efficiency	<u>179</u>
Headquarters Total	840
Operations	
Operations HQ	333
Transmission/Clark	131
Blenheim-Gilboa	108
500MW	64
R.M. Flynn	24
Niagara	246
St. Lawrence	<u>197</u>
Operations Total	1,103
NYPA Total	1,943

Reflects 25 new position requests, funded and embedded in departments

* Includes 20 funded and 15 unfunded new position requests

2017 Capital Budget Request (\$000's)

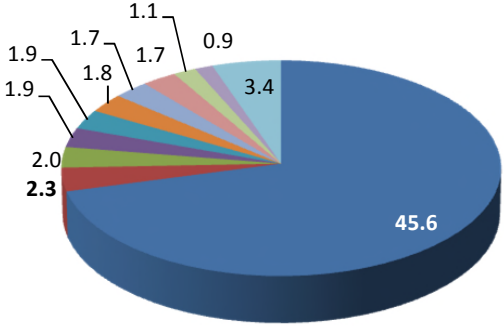
Exhibit B: 1 of 2

	2017 CAPITAL BUDGET
TRANSMISSION	88,317
OPERATIONS	
NIAGARA*	64,271
ST. LAWRENCE*	26,225
BLenheim- GILBOA*	8,171
500 MW	11,105
SCPP	2,717
FLYNN	0
SMALL HYDRO PLANTS	66
SUB-TOTAL OPERATIONS	200,874
OPERATIONS HEADQUARTERS	58,026
TOTAL CAPITAL	258,900

* Includes Relicensing and Compliance / Implementation Expense

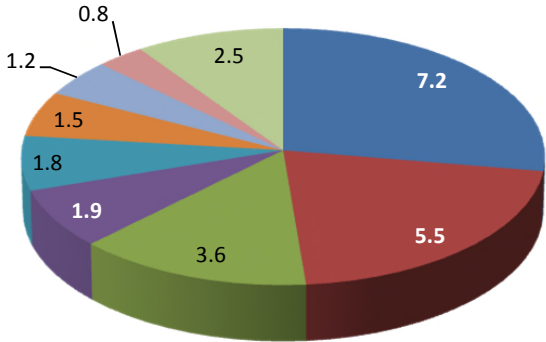
Capital Plan: 2017 Major Initiatives

Niagara 2017
(\$ millions)
Total \$64.3 million



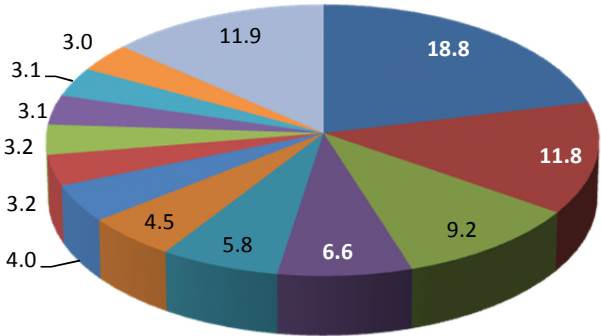
- LEWISTON PUMP GENERATING-LPGP
- NIAGARA -GANTRY CRANE INSPECTION
- RMNPP INTAKE COFFERDAM
- RMNPP TRASH RACK REPLACEMENT
- GENERATOR TRANSFORMER PROTECTION
- CHILLED WATER SYSTEM UPGRADE
- NIAGARA RELICENSING AND IMPLEMENTATION
- RMNPP LIFE EXTENSION & MODERNIZATION
- NIAGARA RM DRAFT TUBE GATES
- NIA SCADA HARDWARE AND SOFTWARE UPGRADE
- All Other Niagara Projects

St. Lawrence 2017
(\$ millions)
Total \$26.2 million



- STL GENERATOR(GSU) TRANSFORMER REPLACEMENT
- STL STATION SERVICE UPGRADE
- STL NEW RMSP FACILITIES/PARKS & RECREATION
- SAINT LAWRENCE RELICENSING AND IMPLEMENTATION
- TARGETED RECREATIONAL FACILITIES
- STL ROTOR MODIFICATION FOR STRESS REDISTRIBUTION
- STL SAFETY SYSTEMS
- All Other St. Lawrence Projects

Transmission 2017
(\$ millions)
Total \$88.3 million



- STL PV 20 LINE UPGRADE
- NIAGARA TRANSMISSION LEM
- STLT BREAKER & RELAY PROGRAM
- SGT: COMMUNICATIONS BACKBONE
- ENERGY CONTROL CENTER REDUNDANCY
- CEC MA1 & MA2 TRANSMISSION LINE UPGRADE
- ASSET MANAGEMENT HEALTH CENTER
- CEC TRANSMISSION LEM
- STL MA1 & MA2 STRUCTURE REPLMT PHASE II
- STL SWITCHYARD T-LEM
- NIAGARA RELAY REPLACEMENT
- LISC Y49 SPARE SHUNT REACTORS
- All Other Transmission Projects

**NEW YORK POWER AUTHORITY
FIVE YEAR PLAN
ENERGY EFFICIENCY**

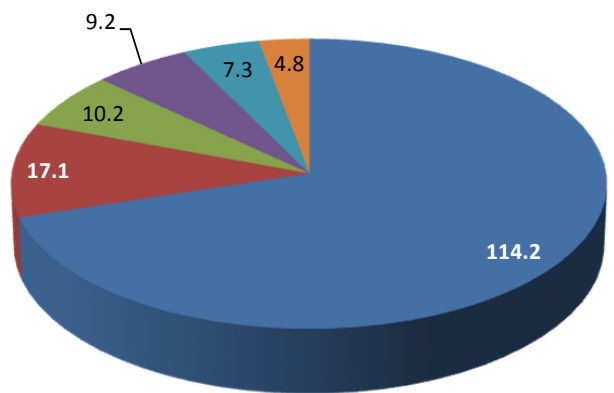
Energy Services 2017 Budget (\$000's)

Exhibit C: 1 of 2

<u>ENERGY EFFICIENCY & TECHNOLOGY</u>	2017
<u>LONG TERM AGREEMENTS</u>	
SENY GOVERNMENTAL SERVICES PROGRAM	162,823
SUB-TOTAL LONG TERM AGREEMENTS	162,823
<u>OTHER NYPA FUNDED PROGRAMS</u>	
ENERGY EFFICIENCY PROGRAM	44,175
MEUA VEHICLES PROGRAM	500
SUB-TOTAL OTHER NYPA FUNDED PROGRAMS	44,675
<u>POCR PROGRAMS</u>	
POCR REBATE PROGRAM	500
POCR - OTHER	509
SUB-TOTAL POCR	1,009
TOTAL ENERGY EFFICIENCY:	208,507

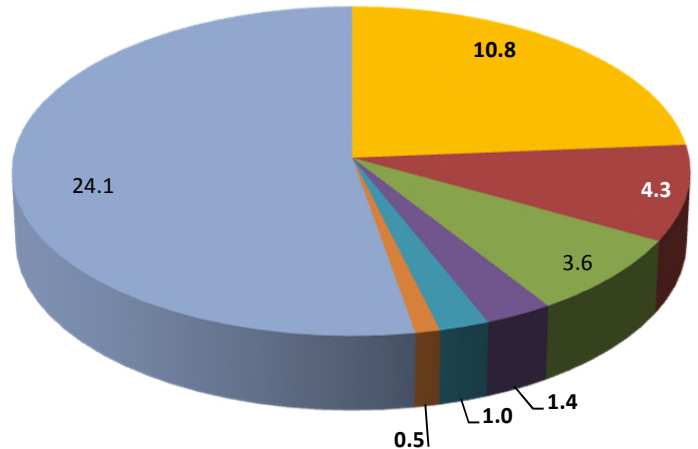
2017 Energy Services Programs

Long Term Agreement Program
 (\$ millions)
Total \$162.8 million



- New York City DEP Projects
- New York City DOC Projects
- CUNY Projects
- Metro North Railroad
- New York City Transit
- All Other Projects

Other Energy Services Programs
 (\$ millions)
Total \$45.7 million



- SUNY Projects
- New York State 'Counties and Towns
- New York State 'School Districts
- Office of General Services (OGS)
- POCR
- Municipal Vehicles
- All Other Projects

2017-2020

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 goals are to have the resources necessary to achieve its mission, to maximize opportunities to serve its customers better and to preserve its strong credit rating.

The Authority generates, transmits and sells electric power and energy; principally at wholesale. The Authority’s primary customers are municipal and rural electric cooperatives located throughout New York State, investor-owned utilities, high load factor industrials, statewide commercial/industrial and not-for-profit businesses, various public corporations located in Southeastern New York within the metropolitan area of New York City (“SENY governmental customers”) and certain neighboring states.

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 combined cycle electric generating plant located in Queens, New York (the “500-MW plant”) and the Richard M. Flynn combined cycle plant located on Long Island (“Flynn”).

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 and St. Lawrence-FDR projects; (b) long-term supplemental electricity supply agreements with the SENY governmental customers; (c) construction and operation of the 500-MW plant 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 bonds to lower the overall cost of debt; and (g) implementation of an enterprise-wide and energy/fuel risk management program. 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, and to serve customers’ needs in an increasingly dynamic energy marketplace.

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 responsibility for implementation of the Governor’s Executive Order No. 88, known as “BuildSmart NY” (to improve energy efficiency at State owned and managed buildings), the Five Cities Energy Efficiency Implementation Plans (for the cities of Albany, Buffalo, Rochester, Syracuse and Yonkers to reduce overall energy costs and consumption, strength the reliability of energy infrastructure, create jobs in local clean energy industries and contribute to a cleaner environment), and the K-Solar program (to reduce schools’ energy costs through the use of solar power). From January 2013 through June 2016, NYPA has provided approximately \$228 million in financing for energy efficiency projects at State agencies and authorities covered by Executive Order 88.

To achieve its goal of promoting energy efficiency, NYPA implements energy services programs aimed for the benefit of its SENY governmental 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 the reduction of the demand for electricity and the efficient use of energy. These programs provide funding for, among other things, high efficiency lighting technology conversions; high efficiency heating, ventilating and air conditioning systems and controls; boiler conversions; replacement of inefficient refrigerators with energy efficient units in public housing projects; distributed generation technologies and clean energy technologies; and installation of non-electric energy saving measures. The Authority has authorized, as of June 30, 2016, the expenditure of an aggregate of \$4.8 billion on these programs.

Legislation was enacted on April 4, 2016 which provided for the transfer to the Authority, effective January 1, 2017, of the New York State Canal Corporation, a public benefit corporation responsible for the management of the New York State Canal. Such enacted legislation provides that the Canal Corporation will become a subsidiary of the Authority. Such legislation also authorizes the Authority to reimburse the

NYS Thruway Authority for the operation and maintenance costs of the Canal System and the Canal Corporation for the interim period of April 1, 2016 through January 1, 2017. See “(c) Canal Corporation” for more information.

(a) NYPA’s Relationship with the 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 that does not receive State funds, tax revenues or credits. 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 changing water flows have a direct effect on hydroelectric generation levels. This 2017-2020 Approved Budget and Financial Plan (“Four-Year Plan”) relies on data and projections developed through the following timeframe:

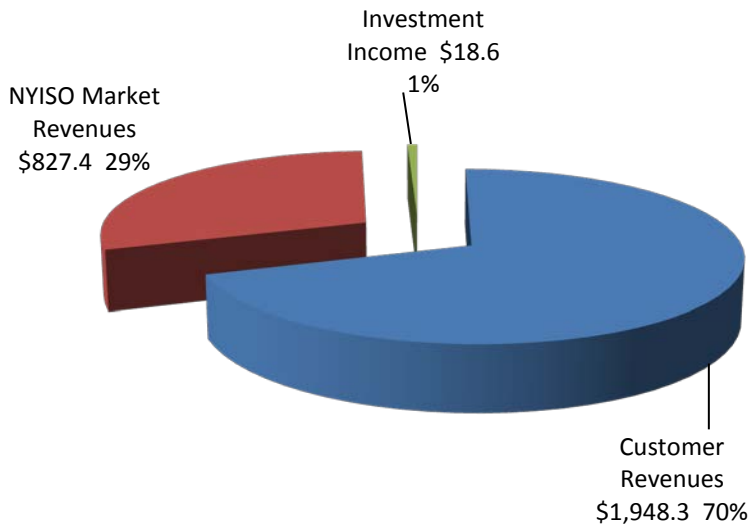
- During July – October 2016, develop preliminary forecasts of electric prices (both energy and capacity) and fuel expenses; NYPA customer power and energy use; NYPA customer rates; generation levels at NYPA power projects reflecting scheduled outages; and purchased energy & power requirements and sources.
- During July – October 2016, develop preliminary operations & maintenance and capital expense targets.
- November 2016 – post 2017-2020 Proposed Budget and Financial Plan for public inspection at five convenient locations and on NYPA’s internet website.
- During October – November 2016, update and finalize all forecasts and cost estimates.
- During November – December 2016, integrate above data to produce Final 2017-2020 Budget and Financial Plan.
- Seek authorization of NYPA’s Trustees to approve the 2017-2020 Budget and Financial Plan at their meeting currently scheduled for December 15, 2016 and submit the information to the State Comptroller’s Office; and make the document available for public inspection at five convenient locations and on NYPA’s internet website.

NYPA's Four-Year Projected Income Statements

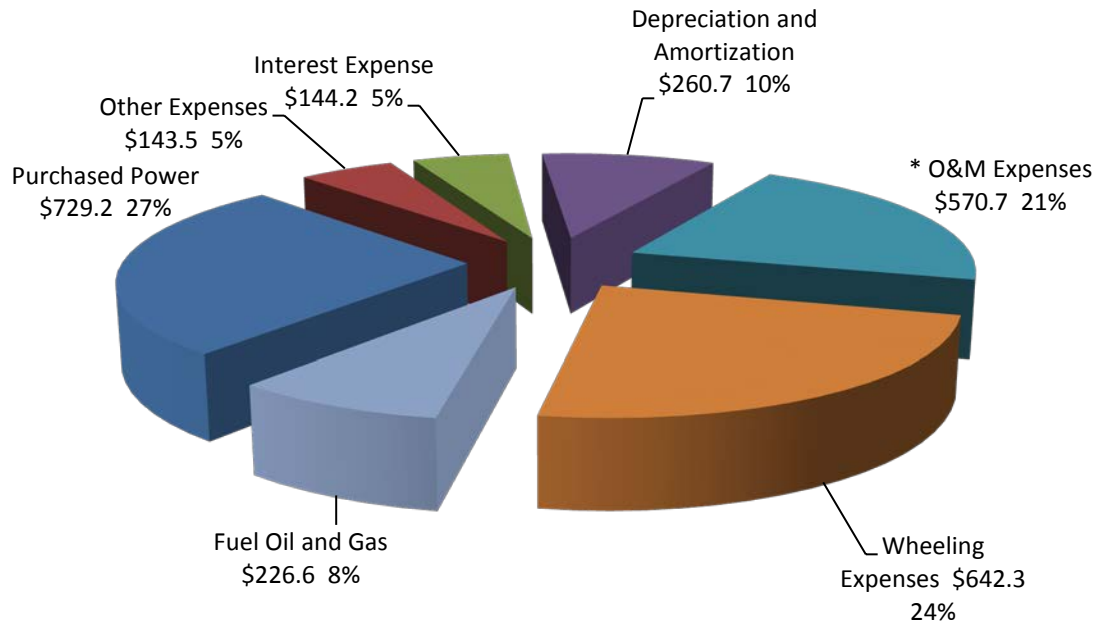
(in Millions)

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
<u>Operating Income:</u>				
Customer Revenues	\$1,948.3	\$1,962.0	\$2,011.4	\$2,036.3
NYISO Market Revenues	<u>\$827.4</u>	<u>\$927.0</u>	<u>\$946.4</u>	<u>\$946.5</u>
Total Operating Income	\$2,775.7	\$2,889.0	\$2,957.8	\$2,982.8
<u>Operating Expenses:</u>				
Purchased Power	\$729.2	\$847.9	\$903.0	\$907.9
Fuel	\$226.6	\$229.0	\$240.2	\$260.0
Wheeling Expenses	\$642.3	\$642.3	\$642.3	\$642.3
O&M Expenses	\$587.7	\$605.8	\$605.6	\$612.0
Other Expenses	\$143.5	\$135.6	\$115.6	\$105.8
Depreciation and Amortization	\$260.7	\$267.0	\$270.2	\$273.4
Allocation to Capital	<u>(\$17.0)</u>	<u>(\$12.4)</u>	<u>(\$12.4)</u>	<u>(\$12.4)</u>
Total Operating Expenses	\$2,573.0	\$2,715.2	\$2,764.5	\$2,789.0
NET OPERATING INCOME	\$202.7	\$173.8	\$193.3	\$193.7
<u>Other Income:</u>				
Investment Income	\$18.6	\$20.2	\$21.5	\$24.2
Other Income	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>
Total Other Income	\$18.6	\$20.2	\$21.5	\$24.2
<u>Non-Operating Expenses:</u>				
Interest Expense	\$144.2	\$140.1	\$141.3	\$144.2
Contributions to State	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>
Total Non-Operating Expenses	\$144.2	\$140.1	\$141.3	\$144.2
NET INCOME	\$77.1	\$53.9	\$73.5	\$73.8

2017 Budget – Sources
(in Millions)



2017 Budget – Uses
(in Millions)



* Reflects NYPA's Base O&M Expenses plus Administrative Expenses less the Allocation to Capital.

NYPA's Statement of Cash Flows

(in Millions)

Revenue Receipts :

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
Sale of Power, Use of Transmission Lines						
Wheeling Charges and other receipts	\$2,600.1	\$2,407.0	\$2,727.4	\$2,844.0	\$2,922.9	\$2,953.5
Earnings on Investments and Time Deposits	<u>\$19.9</u>	<u>\$13.9</u>	<u>\$16.8</u>	<u>\$21.4</u>	<u>\$23.3</u>	<u>\$26.0</u>
Total Revenues	\$2,620.0	\$2,420.9	\$2,744.2	\$2,865.4	\$2,946.2	\$2,979.5

Expenses:

Operation and Maintenance, including Transmission of Electricity by others, Purchased Power and Fuel Purchases	(\$2,264.9)	(\$2,259.0)	(\$2,412.0)	(\$2,547.3)	(\$2,596.0)	(\$2,623.4)
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Debt Service :

Interest on Bonds and Notes	(\$57.7)	(\$60.5)	(\$53.9)	(\$51.9)	(\$56.0)	(\$60.2)
Bonds and Notes Retired	<u>(\$138.0)</u>	<u>(\$57.5)</u>	<u>(\$58.1)</u>	<u>(\$36.8)</u>	<u>(\$39.1)</u>	<u>(\$41.5)</u>
Total Debt Service	(\$195.7)	(\$118.0)	(\$111.9)	(\$88.7)	(\$95.1)	(\$101.7)

Total Requirements	(\$2,460.6)	(\$2,377.0)	(\$2,523.9)	(\$2,636.0)	(\$2,691.1)	(\$2,725.1)
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Net Operations	\$159.4	\$43.9	\$220.3	\$229.4	\$255.1	\$254.4
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Capital Receipts :

Sale of Bonds, Promissory Notes & Commercial Paper	\$210.5	\$91.6	\$242.3	\$98.7	\$282.8	\$149.1
Less : Repayments	(\$106.0)	(\$100.0)	(\$160.7)	(\$29.7)	(\$23.3)	(\$50.9)
Earnings on Construction Funds	\$0.0	\$0.2	\$0.2	\$0.3	\$0.4	\$0.3
DSM Recovery Receipts	\$91.4	\$125.0	\$231.7	\$271.0	\$174.8	\$201.8
Temporary Asset Transfer Return from NYS	\$21.0	\$21.0	\$43.0	\$43.0	\$43.0	\$43.0
Other	<u>\$93.3</u>	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>
Total Capital Receipts	\$310.2	\$137.8	\$356.5	\$383.3	\$477.7	\$343.3

Capital Additions & Refunds :

Additions to Electric Plant in Service and Construction Work in Progress, and Other costs	(\$473.0)	(\$478.6)	(\$527.9)	(\$595.8)	(\$639.1)	(\$661.2)
Construction Funds - Net Transfer	<u>\$0.0</u>	<u>(\$0.2)</u>	<u>(\$0.2)</u>	<u>(\$0.3)</u>	<u>(\$0.4)</u>	<u>(\$0.3)</u>
Total Capital Additions & Refunds	(\$473.0)	(\$478.8)	(\$528.1)	(\$596.1)	(\$639.5)	(\$661.5)

Net Capital	(\$162.8)	(\$341.0)	(\$171.6)	(\$212.8)	(\$161.8)	(\$318.2)
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Net Increase/(Decrease)	(\$3.4)	(\$297.1)	\$48.7	\$16.6	\$93.3	(\$63.8)
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(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 significant 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 facilities 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 Four-Year Plan models Trustee-approved rate increases for customers as well as prospective rate increases.

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: the Power for Jobs ("PFJ") and Energy Cost Savings Benefits ("ECSB") programs. RNYPP is a permanent power program administered by the Authority and the Economic Development Power Allocation Board ("EDPAB"). The RNYPP utilizes 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 455 MW of hydropower was, until August 1, 2011, provided to residential and domestic customers of three upstate utilities. 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. PFJ and ECSB program customers that applied for, but were not awarded RNYPP allocations, were eligible for certain transitional electricity discounts. This transitional electricity discounts program provides for declining levels of discounts through June 30, 2016 when the program terminates, if payment of such discounts is deemed feasible and advisable by the Authority's Trustees. As of June 30, 2016, approximately \$9.8 million of such discounts have been paid with approximately an additional \$3.4 million in payments remaining to be made. 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 supplemented the market revenues through the use of internal funds, from the August 2011 start of the program through June 30, 2016, totaling cumulatively \$114 million.

In June, 2016 the Authority made an agreement for the sale of 245 MW of firm hydroelectric power and energy from the St. Lawrence-FDR project to Alcoa at its West Plant facilities. This contract with the Aluminum Company of America ("ALCOA") for an aggregate of 245 MW has been executed effective October 1, 2015 through March 31, 2019, replacing prior long-term contracts with ALCOA. The contract

provides for rate adjustments based upon a formula containing various indices, and has provisions for price adjustments based on the price of aluminum on the London Metal Exchange. The contract has job compliance provisions based on employment commitments. In response to certain economic factors surrounding the aluminum smelting industry, and in response to ALCOA's announcement that it would curtail smelting operations at its Massena plant, the Authority's Trustees in December 2015 approved execution of this Agreement with ALCOA to replace prior power sales contracts that totaled 478 MW.

The Authority estimates that the total costs associated with the relicensing of the St. Lawrence-FDR Project for a period of 50 years will be approximately \$210 million, of which approximately \$192 million has already been spent as of September 30, 2016. These total costs could increase in the future as a result of authorities reserved by FERC in the New License. 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 ("NNY Fund"), 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.

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 NNY Fund have been incorporated into this 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. Starting in May 2013, proceeds from the WNY Fund have been 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 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 500-MW 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 and grandfathered transmission rights offset the cost of the energy purchased. A set amount of capacity from the Blenheim-Gilboa project is also dedicated to serving a portion of this customer class.

In 2005, the Authority and its major New York City governmental customers entered into long-term supplemental electricity supply agreements ("2005 LTA"). Under the 2005 LTA, the NYC governmental customers agreed to purchase their electricity from the Authority through December 31, 2017, with the NYC governmental customers having the right to terminate service from the Authority at any time on three years' notice and, under certain limited conditions, on one year's notice, provided that they compensate the Authority for any above-market costs associated with certain resources used to supply these customers. The Authority and the New York City governmental customers are currently in negotiations for a continued electricity and supply agreement.

Under the 2005 LTA, the Authority modifies rates annually through a formal rate proceeding if there is a change in fixed costs to serve the New York City governmental customers. Generally, changes in variable costs, which include fuel and purchased power, are captured through annual contractual pricing adjustment mechanisms.

In 2007, the Authority entered into new supplemental electricity supply agreements (“2007 Supplemental Agreements”) with more than one-hundred governmental customers in Westchester County, resulting in the Westchester governmental customers remaining full requirements customers of NYPA. The Westchester County customers can terminate the contract upon one year’s notice, effective no sooner than the January 1st following such notice. The Authority may modify the rates charged the customer pursuant to a specified procedure; an energy charge adjustment mechanism is applicable to all variable costs; the customer is committed to pay for any supply resources secured for it by the Authority under a collaborative process; and NYPA will continue to make available financing for energy efficiency projects and initiatives, with costs thereof to be recovered from the customer.

For purposes of the Four-Year Plan, it is assumed that both the 2005 LTA and the 2007 Supplemental Agreements will be extended through the Four-Year Plan forecast period, such that the SENY governmental customers will continue to be served and rates for these customers will be set on the basis of the cost to serve these loads.

Blenheim-Gilboa Customers

The Authority had a contract for the sale of 50 MW of firm capacity from the Blenheim-Gilboa plant to the Long Island Power Authority (“LIPA”) which expired in April of 2015. The Authority additionally has an active contract for the sale of 250 MW of firm capacity to the Authority’s New York City governmental customers, the rates for which are reset periodically on the basis of cost. The remainder of the plant’s capacity is used to meet the requirements of some of the Authority’s other business and governmental customers and/or sold in the NYISO market. For purposes of the Four-Year Plan, it has been assumed that the allocation to the New York City governmental customers continues.

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. The plant at the Vernon location is assumed to be retired during the forecast period pursuant to the terms of an agreement entered into at the time of construction.

For the 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 auction. NYPA sells the energy produced by the SCPPs into the NYISO energy market.

Flynn

The Flynn project is a combined-cycle facility with a net dependable capability of 162.7 MW. The entire output of the plant had previously been sold to LIPA, however LIPA terminated the Flynn contract on April 30, 2014. The Flynn project now operates as a merchant plant, with capacity and energy output sold into the NYISO market. The forecast is for Flynn to operate as a merchant plant for the next four years.

Transmission Projects

The Authority owns approximately 1,400 circuit miles of high voltage transmission lines, the major lines being the 765-kV Massena-Marcy line, the 345-kV Marcy-South line, the 345-kV Niagara-to-Edic line, and the 345-kV Long Island Sound Cable.

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. NYPA receives cost recovery through the NYISO tariff mechanism known as the NYPA Transmission Adjustment Charge (“NTAC”), which recovers transmission 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 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. Annual updates commensurate with projected costs are assumed to continue throughout the forecast period.

Hudson Transmission Project

Following a request for proposals issued by the Authority in March 2005, the Authority executed a firm transmission capacity purchase agreement with HTP in April 2011. HTP constructed a 345-kV underground/submarine transmission line extending from Bergen County, New Jersey to Con Edison's West 49th Street substation in midtown Manhattan. The transmission line commenced operation in June 2013, and is operating as a merchant facility.

The Authority executed a Firm Transmission Capacity Purchase Agreement (FTCPA) with HTP, which provides the Authority with 75% of the Line's 660 MW of transmission 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. The costs of those interconnection and transmission upgrades associated with the Line are estimated to be approximately \$343 million. As of June 30, 2016, the Authority paid approximately \$315 million of such costs related to the interconnection and transmission upgrades. 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 transmission tariff. Such RTEP costs are estimated to grow significantly in future years, 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 initial 20-year term of the FTCPA. PJM's RTEP charges contribute to this under-recovery. PJM's RTEP cost allocation methodology for certain upgrades, such as the Bergen-Linden Corridor and Edison Rebuild projects, is being challenged at FERC 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. The Authority's challenge has also pointed out that the RTEP share allocated to HTP may be greatly exacerbated by Con Edison's upcoming termination of its PJM transmission rights (schedule to occur after April 2017) that could shift significant RTEP costs to the Authority. Depending on a variety of factors, including the outcome of FERC's review and whether any other parties decide to terminate their PJM transmission rights, HTP could be allocated, and NYPA could be obligated to pay, substantially more RTEP costs. Any RTEP costs relating to the Bergen-Linden Corridor and Edison Rebuild projects would be paid over a number of years once construction of the improvements commences, which is expected in 2017.

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 the Four-Year Plan, projected energy rates are based on available forward price curves while the capacity rates are estimated using the NYISO demand curve methodology.

Fuel Expenses

Fossil-fuel purchases in the 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.

Strategic Initiatives

The Authority is pursuing several 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.

The Four-Year Plan reflects costs and revenues with respect to these initiatives.

Canal Corporation

Legislation was enacted on April 4, 2016 (the “Canal Transfer Legislation”) which provided for the transfer to the Authority, effective January 1, 2017, of the New York State Canal Corporation (the “Canal Corporation”), a corporation responsible for the management of the New York State Canal System. The current Canal System, which was constructed more than a century ago, provides extensive inter-modal linkage within and beyond the State’s borders and includes four major canals, canalized natural waterways, five lakes, feeder reservoirs and numerous shipping terminals. It consists of 57 locks, 20 lift bridges, 22 reservoirs, 203 buildings, 114 dams and many other structures critical to the maintenance and operations of the waterways and its feeder systems.. The Canal System links the Hudson River with Lake Champlain, Lake Ontario, the Finger Lakes, the Niagara River and Lake Erie, passes through 25 counties and is in close proximity to more than 200 villages, hamlets and towns. The Canal System is a significant recreation-way and tourist destination. The Canal Transfer Legislation provided that the Canal Corporation will become a subsidiary of the Authority, and the Authority will be responsible for the management and operation of the Canal System. The Canal Transfer Legislation authorizes the Authority, to the extent that the Authority’s Trustees deem it feasible and advisable, to transfer moneys, property and personnel to the Canal Corporation and also authorizes the Authority to issue subordinated debt for the purposes of financing the construction, reconstruction, development and improvement of the Canal System. The Canal Transfer Legislation also authorizes the Authority to reimburse the NYS Thruway Authority (the “Thruway Authority”) for the operation and maintenance costs of the Canal System and the Canal Corporation for the interim period of April 1, 2016 through January 1, 2017.

The Authority and the Thruway Authority executed a Canal Reimbursement Agreement, dated as of July 6, 2016, providing for the monthly reimbursements authorized in the Canal Transfer Legislation. As of December 7, 2016, the Authority has remitted, cumulatively, approximately \$37 million to the Thruway Authority for reimbursement for the months of April through September 2016. Because the Authority does not currently own the Canal Corporation, all reimbursement costs, including those for capital related activities, are being treated as non-operating expenses for the Authority’s 2016 fiscal year. Beginning with the fiscal year beginning on January 1, 2017 when the Canal Corporation becomes a subsidiary of the Authority, it is expected that the accounts and activities of the Authority and the Canal Corporation will be reported on a consolidated basis.

The Authority has undertaken a planning and implementation process to prepare for the transfer of the Canal Corporation. As part of this process, the Authority is seeking to determine what the required intermediate and long term level of the Authority's financial support to the Canal Corporation will be. Given the age of the Canal System, the Authority expects that significant maintenance and capital investments will be required to assure its continuing operation. For the purposes of preparing this Four-Year Plan, certain assumptions have been made with respect to expenses and revenues related to the Canal Corporation. The actual level of such expenditures may be affected by a variety of factors.

Investment and Other Income

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 National Mortgage Association and Federal Home Loan Bank, 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 U.S. Government.

Other Income

On November 21, 2000 ("Closing Date"), the Authority sold its nuclear plants, the Indian Point 3 ("IP3") and James A. FitzPatrick ("JAF") Projects, to two subsidiaries of the Entergy Corporation for cash and non-interest bearing notes totaling \$967 million, maturing over a 15-year period. The present value of these payments recorded on the Closing Date, utilizing a discount rate of 7.5%, was \$680 million. In addition, the Authority entered into two "value sharing agreements" ("VSAs") with the Entergy subsidiaries whereby the Authority is entitled to receive annual payments up to a maximum of \$72 million, with the last VSA cash payment made in early 2015 while being recorded as revenue on the 2014 income statement.

On August 8, 2016, the Authority entered into certain agreements with Entergy Nuclear Operations, Inc. and certain of its affiliates (collectively, "Entergy") related to the sale by Entergy to Exelon Generation Company, LLC of the James A. Fitzpatrick nuclear power plant. Such agreements provide for the transfer, subject to approval by the Nuclear Regulatory Commission, from the Authority to Entergy of the nuclear decommissioning trust funds ("NDTFs"), as well as all remaining nuclear decommissioning financial obligations, relating to the nuclear plants that the Authority sold to Entergy in 2000. In addition, the Authority provided a standby letter of credit to Entergy Nuclear Fitzpatrick, LLC in the amount of \$35 million, which may be drawn upon by the beneficiary upon certain conditions, including, among others, the failure of independent regulatory bodies to provide their approval of the sale. The Authority expects the sale to be completed in 2017. The letter of credit was issued on August 8, 2016 by T.D. Bank, NA under a Reimbursement Agreement whereby the Authority is obligated to reimburse T.D. Bank immediately for any draws upon the letter of credit.

Operations and Maintenance Expenses

NYPA's O&M plan by cost element for 2017-2020 is as follows:

Operations and Maintenance Forecast by Cost Element

(in Millions)

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
Payroll				
Regular Pay	\$ 203.9	\$ 210.2	\$ 216.6	\$ 223.2
Overtime	\$ 9.7	\$ 10.0	\$ 10.4	\$ 0.7
Other Payroll	<u>\$ 4.8</u>	<u>\$ 4.9</u>	<u>\$ 5.0</u>	<u>\$ 5.1</u>
Total Payroll	\$ 218.5	\$ 225.1	\$ 232.0	\$ 239.1
Benefits				
Employee Benefits	\$ 40.8	\$ 42.0	\$ 43.2	\$ 44.5
Pension	\$ 41.2	\$ 42.6	\$ 44.1	\$ 45.6
OPEB	\$ 28.1	\$ 29.2	\$ 30.5	\$ 31.8
FICA	<u>\$ 16.0</u>	<u>\$ 16.5</u>	<u>\$ 17.0</u>	<u>\$ 17.6</u>
Total Benefits	\$ 126.1	\$ 130.4	\$ 134.8	\$ 139.4
Materials/Supplies	\$ 21.9	\$ 22.6	\$ 23.3	\$ 24.0
Fees	\$ 8.7	\$ 9.0	\$ 9.3	\$ 9.7
Office & Station	\$ 19.2	\$ 19.8	\$ 20.5	\$ 21.2
Maintenance Repair & Service Contracts	\$ 154.6	\$ 162.5	\$ 148.5	\$ 140.4
Consultants	\$ 44.7	\$ 43.1	\$ 44.5	\$ 46.0
Charges to:				
Outside Agencies	\$ (0.4)	\$ (0.5)	\$ (0.6)	\$ (0.7)
Capital Programs	<u>\$ (42.8)</u>	<u>\$ (44.2)</u>	<u>\$ (45.6)</u>	<u>\$ (47.0)</u>
Total Charges	\$ (43.2)	\$ (44.6)	\$ (46.1)	\$ (47.7)
Research & Development	\$ 8.9	\$ 9.2	\$ 9.6	\$ 9.9
Subtotal	\$ 559.5	\$ 577.2	\$ 576.4	\$ 581.9
Astoria Energy II	\$ 28.2	\$ 28.6	\$ 29.2	\$ 30.0
TOTAL NYPA O&M	\$ 587.7	\$ 605.8	\$ 605.6	\$ 612.0

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, 2015 expressed as a percentage of average depreciable capital assets was 2.80%. NYPA has recently completed a study of the depreciation provisions on its Transmission and General Plant assets. The results of this depreciation study are currently under review.

Other Expenses

The Other Expenses category largely reflects various accruals (e.g., Other Post-Employment Benefit prior service obligations) and other miscellaneous expenses, 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 certain of the 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.

Regulatory Risks

On August 1, 2016, the New York Public Service Commission ("PSC") issued an order establishing a Clean Energy Standard ("CES") to implement the clean energy goals of the State Energy Plan ("SEP") that 50% of New York's consumed electricity be provided by renewable electricity sources by 2030, and statewide greenhouse gases be reduced by 40% by 2030. The CES imposes two requirements on load serving entities identified in the order ("Affected LSEs"): (1) an obligation to purchase "Zero Emission Credits" ("ZECs") from the New York State Energy Research Development Authority to support the preservation of existing at risk zero emissions nuclear generation, in an amount representing the Affected LSE's proportional share of ZECs calculated by the amount of electric load it serves in relation to the total electric load served by all LSEs in the New York Control area ("ZEC Purchase Obligation"); and (2) an obligation to support renewable generation resources to serve the Affected LSE's retail customers to be evidenced by the procurement of qualifying Renewable Energy Credits ("RECs") in quantities that satisfy prescribed minimum percentage proportions of the total retail load served by the Affected LSE ("REC Purchase Obligation") (collectively, the "CES Program"). While the Authority is not subject to PSC jurisdiction for purposes of the CES Order, it (i) supports the SEP's clean energy goals, (ii) may consider the SEP's planning objectives and strategies when making energy-related decisions, and (iii) supplies electricity to end-use customers in the State in a manner similar to an Affected LSE. Therefore, the Authority expects to (i) assume a ZEC Purchase Obligation on behalf of NYPA's affected load, and (ii) support the achievement of the 50% by 2030 renewable energy goal for the end-user load for which it serves as LSE.

The Regional Greenhouse Gas Initiative ("RGGI") is a cooperative effort by Northeastern and Mid-Atlantic states, including New York, to hold carbon dioxide emission levels steady from 2009 to 2014 and then reduce such levels by 2.5% annually in the years 2015 to 2018 for a total 10% reduction. 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 the 500-MW Plant are subject to the RGGI requirements as is the Astoria Energy II plant. The Authority has participated in program auctions commencing in September 2008 and expects to recover RGGI costs through its power sales revenues. Beginning 2014, 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 91 million tons in 2014), and will decline by 2.5% each year from 2015 through 2020. This reduction has increased the price for carbon dioxide allowances, which the Authority acquires to cover operation of its fossil-fueled power plants and the Astoria Energy II plant. The Authority is monitoring federal legislation and proposed programs that would impact RGGI.

In 2013, President Obama sent a memorandum to the Environmental Protection Agency (the "EPA") on "Power Sector Carbon Pollution Standards" (the "Presidential Memorandum") as part of the President's Climate Action Plan. The Presidential Memorandum requires the EPA to propose carbon pollution standards for power plants. On August 3, 2015, the EPA met a milestone by releasing its final Clean Power Plan Rule for existing power plants. The objective is to reduce by 2030 carbon pollution (carbon dioxide emissions) nationwide from the power sector (plants in operation before December 31, 2012) by 32% from 2005 levels. Under the EPA's regulations for existing sources, the State will have one year to submit its implementation plan to the EPA. The State will need to be compliant with carbon dioxide reduction starting in 2022, with the state's final goal to be met in 2030. The Authority continues to monitor developments in this area.

During 2011, the U.S. Environmental Protection Agency ("EPA") issued a series of rulings to establish the Cross-State Air Pollution Rule ("CSAPR"). 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. Following decisions by the U.S. Court of Appeals (D.C. Circuit) and the U.S. Supreme Court, the EPA issued an interim final rule on November 21, 2014 to amend the compliance deadline from 2012 and

2013 to 2015 and 2016 for CSAPR's Phase 1 emissions budgets, and from 2014 to 2017 for Phase 2 emissions budgets and assurance provisions. On July 28, 2015, the D.C. Circuit remanded part of CSAPR to the EPA for reconsideration, finding that the EPA erred in 2014 sulfur dioxide and ozone budgets for 13 states by imposing uniform emission reductions instead of assessing each upwind state's contribution (the D.C. Circuit found the result is over-control of emissions in those states based on emissions budgets). While the emissions budgets were not vacated, the DC Circuit remanded the matter for EPA to develop compliant regulations. The Authority continues to operate its fossil-fueled plants within the allocated allowances and anticipates that operation of its fossil fueled power plants will not be impacted by CSAPR.

Congressional 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.

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 2016, the Authority filed for a formula rate annual TRR consistent with those principles, which resulted in the current \$198.5 million TRR. The formula rate annual TRR is incorporated into the NYISO Open Access Transmission Tariff ("OATT"). This 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 in subsequent years, has authorized the Authority, "as deemed feasible and advisable by the trustees," to make a series of "voluntary contributions" into the State treasury in connection with the PFJ program and for other purposes. Since December 2002, the Authority has made voluntary contributions to the State of \$475 million in connection with the PFJ program and an additional \$743 million unrelated to the PFJ program. The PFJ program was replaced by the RNYPP beginning July 1, 2012 with the enacting legislation authorizing transitional electricity discounts through June 30, 2016 for those PFJ and ECSB customers applying for but not receiving RNYPP allocations. For the forecast period, the Authority estimates these transitional payments at \$3.4 million for 2016 and \$1.7 million for 2017.

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". 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. On May 24, 2011, the Authority's Trustees adopted a 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 that in deciding whether to make contributions, transfers, or payments, the Authority shall use as a reference the maintenance of a debt service coverage ratio of at least 2.0, in addition to making other determinations required by the General Resolution.

In addition to the authorization for the voluntary contributions, the Authority was authorized by February 2009 budget legislation to make certain temporary asset transfers to the State of funds 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 have 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. On April 24, 2014, the Authority and the State executed an Amendment to the MOU that became effective on July 29, 2014 and provides that the State shall, subject to

appropriation by the State Legislature, return the \$103 million over 5 State fiscal years. As of September 30, 2016, the Authority has received an aggregate of \$60 million. The remaining installments provided for by the Amendment to the MOU are \$21 million for State Fiscal Year 2017-2018, and \$22 million for State Fiscal Year 2018-2019. The Authority has assumed that the \$215 million shall be returned over a number of years, beginning in 2017.

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 greater 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.

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 21.6 TWH in 2017, 22.1 TWH in 2018, 22.3 TWH in 2019, and 22.0 TWH in 2020. 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 2017-2020 that estimated the potential net income that could result over a reasonable range of hydroelectric generation occurrences. The effects on estimated net income, assuming all other factors remain unchanged, were as follows:

	<u>Low Generation</u>		<u>High Generation</u>	
	Net Hydroelectric Generation	NYPA Net Income Change <i>(in Millions)</i>	Net Hydroelectric Generation	NYPA Net Income Change <i>(in Millions)</i>
2017	19.2 TWH	(\$61.0)	22.7 TWH	\$29.1
2018	19.7 TWH	(\$64.4)	23.3 TWH	\$30.0
2019	19.8 TWH	(\$64.2)	23.4 TWH	\$29.9
2020	19.6 TWH	(\$63.7)	23.1 TWH	\$29.7

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 mitigate downside effects, many of NYPA's customer contracts provide for the complete or partial pass-through of these costs. To moderate cost impacts to its customers, 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 meet customer needs; 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. Commodities 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 ("Swaps"). The requirements and processes are set forth in regulations promulgated by the Commodities Futures Trading Commission ("CFTC"). Pursuant to CFTC rules thus far, the Authority, as a public entity and electric utility which uses swaps solely to manage its risk, will be exempted from posting collateral beyond that of any existing credit support annexes in support of its open over-the-counter ("OTC") 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 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 process, 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. 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.

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 based on the specific, unique natural threats at each of its generation facilities. The Authority maintains close working relationships with local first responders and government agencies to ensure its ongoing preparedness.

Canal Corporation

Based on the information available during the integration process, the Authority has identified several risk areas relating to the Canal Corporation and will assess risk mitigation options across multiple enterprise risk fronts in an effort to manage or reduce potential exposures. As more information becomes available, the Authority may identify additional risk areas.

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 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 is 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, three groups of Mohawk Indians (collectively, the "St. Regis Plaintiffs"), including a Canadian Mohawk tribe, filed lawsuits in the U.S. District Court for the Northern District of New York 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 (the "St. Regis Litigation"). These islands are within the boundary of the Authority's St. Lawrence-FDR Project and Barnhart Island is the location of significant St. Lawrence-FDR Project facilities. Settlement discussions were held periodically between 1992 and 1998. In 1998, the Federal government intervened on behalf of the St. Regis Plaintiffs.

The parties agreed to a land claim settlement, dated February 1, 2005, which if implemented would include, among other things, the payment by the Authority of \$2 million a year for 35 years to the St. Regis Plaintiffs, the provision of up to 9 MW of low cost Authority power for use on the reservation, the transfer of two Authority-owned islands; Long Sault and Croil, and a 215 acre parcel on Massena Point to the St. Regis Plaintiffs, and the St. Regis Plaintiffs withdrawing any judicial challenges to the Authority's new license, as well as any claims to annual fees from the St. Lawrence-FDR Project.

The legislation required to effectuate the settlement was never enacted and the litigation was reactivated. In November 2006, all defendants moved to dismiss the complaints of the St. Regis Plaintiffs as well as the United States' complaint based on the lengthy delay in asserting the land claims (i.e., the laches defense). On September 28, 2012, the U.S. Magistrate recommended dismissal of all land claims brought against the Authority by the St. Regis Plaintiffs as well as the Federal government. The U.S. Magistrate upheld the Authority's laches defense and also recommended dismissal on the same grounds of all claims by the same plaintiffs against the other defendants relating to all but one of the other challenged mainland parcels.

In orders dated July 2013, the District Court accepted the Magistrate's recommendation and granted the Authority judgment on the pleadings. The Court accepted all but one of the Magistrate's other recommendations, which resulted in dismissal of all land claims against the other defendants except those relating to two mainland parcels. Barring an appeal by the plaintiffs, all claims against the Authority have been dismissed and the lawsuit against the Authority is concluded.

The State and the St. Regis Mohawk Tribe (the "Tribe") have been discussing a settlement of the land claims, as well as other issues between the State and the Tribe. On May 28, 2014, the State, the Tribe, St. Lawrence County and the Authority executed a Memorandum of Understanding (the "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. In addition, on or before a final settlement of the litigation, all parties to the St. Regis Litigation would have to agree to a settlement of all outstanding claims, including parties that did not execute the St. Regis MOU, such as the two other Mohawk groups, the federal government and Franklin County. Before any settlement becomes effective and the Authority is obligated to make any payments contemplated by the St. Regis MOU, however, federal and state legislation must be enacted which approves the settlement and extinguishes all Mohawk land claims.

Tropical Storm Irene

In August 2012, the County of Schoharie, eight towns and villages therein, and one school district (the "Municipalities") initiated a lawsuit in Schoharie County Supreme Court against the Authority involving the heavy rains and widespread flooding resulting from Tropical Storm Irene's passage through the Northeast in August 2011. The Municipalities essentially alleged that they sustained property damage and lost tax revenues resulting from lowered assessed valuation of taxable real property due to the Authority's negligence in its operations at the Blenheim-Gilboa pumped-storage hydroelectric facility located on the Schoharie Creek in Schoharie County, New York. The Municipalities' complaint seeks judgment "in an amount to be determined at trial with respect to each [of the ten plaintiffs] in the sum of at least \$5,000,000, plus punitive damages in the sum of at least \$5,000,000" as well as attorney fees. As of October 31, 2014, all of the Municipalities have discontinued their lawsuits against the Authority.

In February 2012, a private landowner filed a similar lawsuit in Schoharie County Supreme Court on behalf of a park campground and makes nearly the same allegations made by the Municipalities with the plaintiff seeking at least \$5 million in damages, at least \$5 million in punitive damages, as well as attorney's fees. In December 2012, the Authority was served with a third lawsuit by five plaintiffs arising out of Tropical Storm Irene and the Authority's operation of its Blenheim-Gilboa Pumped Storage Project. The five plaintiffs include three individual landowners owning properties located in Schoharie, NY and Central Bridge, NY and claiming damages in the aggregate amount of \$1.55 million, and two corporations also owning properties in Schoharie, NY and claiming damages in the aggregate amount of \$1.05 million. On October 27, 2014, the Court granted the Authority's motion to change the place of trial. The Court directed the Clerk of Court to transfer the proceedings to Albany County. Discovery, which is joined for these two remaining actions, is ongoing.

Long Island Sound Cable Project

In January 2014, one of the Long Island Sound Cable Project underwater cables was severely impacted by an anchor and /or anchor chain dropped by one or more vessels, causing the entire electrical circuit to fail and the circuit breaker to trip. As a result of the impact to the cable, dielectric fluid was released into Long Island Sound. The Authority incurred approximately \$34 million in costs arising out of this incident and has recovered approximately \$18.9 million from its insurers. The Authority believes that it will be able to recover the full amount of its damages through legal proceedings and contractual obligations.

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 2016 Budget
(in Millions)

	Original Budget <u>2016</u>	Forecast <u>2016</u>	Variance Better/(Worse) <u>2016</u>
<u>Operating Revenues:</u>			
Customer Revenues	\$1,860.2	\$1,741.5	(\$118.7)
NYISO Market Revenues	<u>\$839.5</u>	<u>\$716.9</u>	<u>(\$122.6)</u>
Total Operating Revenues	\$2,699.7	\$2,458.4	(\$241.3)
<u>Operating Expenses:</u>			
Purchased Power	\$706.1	\$565.5	\$140.5
Fuel	\$221.8	\$162.5	\$59.2
Wheeling Expenses	\$629.1	\$609.2	\$19.9
O&M Expenses	\$458.9	\$458.6	\$0.3
Other Expenses	\$186.4	\$208.4	(\$22.0)
Depreciation and Amortization	<u>\$229.4</u>	<u>\$230.0</u>	<u>(\$0.6)</u>
Total Operating Expenses	\$2,431.7	\$2,234.4	\$197.2
NET OPERATING REVENUES	\$268.1	\$224.0	(\$44.1)
<u>Other Income:</u>			
Investment Income	\$29.0	\$24.2	(\$4.8)
Other Income	<u>\$2.5</u>	<u>\$12.0</u>	<u>\$9.5</u>
Total Other Income	\$31.5	\$36.2	\$4.7
<u>Non-Operating Expenses</u>			
Interest & Other Expenses	\$158.7	\$220.1	(\$61.4)
Contributions to State	<u>\$90.0</u>	<u>\$91.0</u>	<u>(\$1.0)</u>
Total Non-Operating Expense	\$248.7	\$311.1	(\$62.4)
NET INCOME	\$50.8	(\$51.0)	(\$101.8)

(f) Reconciliation of 2016 Budget and 2016 Revised Forecast

The 2016 year-end net income projection is (\$51.0) million, which is \$101.8 million below budget. This negative variance is primarily a result of low energy market prices and the unbudgeted Canal Corporation expenses. These factors are driving the variance in Operating Revenues, Fuel, Purchased Power and Non-Operating Expenses.

(g) Statement of 2015 Financial Performance

**New York Power Authority
Net Income - Actual vs. Budgeted
For the Year ended December 31, 2015
(in millions)**

	Actual	Budget	Variance Favorable/ (Unfavorable)
Operating Revenues			
Customer	\$1,820	\$1,985	(\$165)
NYISO Market Revenues	\$805	\$1,113	(\$308)
Total Operating Revenues	\$2,625	\$3,097	(\$473)
Operating Expenses			
Purchased Power	\$689	\$868	\$180
Fuel	\$236	\$292	\$56
Wheeling	\$599	\$618	\$19
Operations & Maintenance	\$440	\$474	\$34
Other Expenses	\$145	\$213	\$69
Depreciation & Amortization	\$237	\$231	(\$6)
Allocation to Capital	(\$15)	(\$17)	(\$2)
Total Operating Expenses	\$2,330	\$2,679	\$349
Operating Income	\$295	\$419	(\$124)
Nonoperating Revenues and Expenses			
Nonoperating Revenues			
Investment Income	\$14	\$39	(\$24)
Other income	\$11	\$4	\$7
Total Nonoperating Revenues	\$25	\$43	(\$17)
Nonoperating Expenses			
Contribution to New York State	\$90	\$90	\$0
Interest and Other Expenses	\$156	\$166	\$10
Total Nonoperating Expenses	\$246	\$256	\$10
Nonoperating Income (Loss)	(\$220)	(\$213)	\$7
Net Income	\$74	\$206	(\$132)

Net Income for the year ended December 31, 2015 was \$74 million, which was \$131.5 million lower than budget of \$205.5 million. This negative variance is primarily the result of lower net margins on sales at Niagara, St. Lawrence and the SCPPs resulting from lower prices, and the impact of lower generation caused by low precipitation and less than normal ice thaw. These factors are driving the variance in Operating Revenues, Fuel, and Purchased Power.

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

	<u>2017</u> <u>Request</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
Headquarters	830	830	830	830
Power Generation	925	925	925	925
Transmission	168	168	168	168
R&D	20	20	20	20
Canal Corp	<u>482</u>	<u>482</u>	<u>482</u>	<u>482</u>
TOTAL	2,425	2,425	2,425	2,425

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

As the Authority is projecting positive net income for the 2017-2020 period, there are no planned gap-closing programs.

(j) Material Non-recurring Resources – source and amount

See discussion in “Other Income” section.

(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>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
Revenue Bonds	\$963,690	\$927,710	\$1,023,651	\$982,991
Adjustable Rate Tender Notes	\$0	\$0	\$0	\$0
Subordinated Note	\$21,200	\$20,395	\$19,575	\$18,740
Commercial Paper Notes	\$397,444	\$321,624	\$441,347	\$531,371
<u>Grand Total</u>	<u>\$1,382,334</u>	<u>\$1,269,729</u>	<u>\$1,484,573</u>	<u>\$1,533,102</u>

New York Power Authority
Debt Service as Percentage of Pledged Revenues (Accrual Basis)
(Debt Service in thousands)

	2017		2018		2019		2020	
	<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	\$100,102	3.58%	\$79,154	2.72%	\$80,930	2.72%	\$86,070	2.86%
Adjustable Rate Tender Notes	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%
Subordinated Debt	\$1,505	0.05%	\$1,504	0.05%	\$1,505	0.05%	\$1,504	0.05%
Commercial Paper Notes	\$7,220	0.26%	\$8,153	0.28%	\$10,347	0.35%	\$17,206	0.57%
<u>Grand Total Debt Service</u>	<u>\$108,827</u>	<u>3.89%</u>	<u>\$88,811</u>	<u>3.05%</u>	<u>\$92,783</u>	<u>3.11%</u>	<u>\$104,781</u>	<u>3.48%</u>

New York Power Authority
Planned Use of Debt Issuances
(in thousands)

<u>TYPE</u>	<u>Amount</u>	<u>Assumed Interest Rate</u>	<u>Project / Description</u>
<u>Period January 1, 2017 – December 31, 2017</u>			
Tax Exempt Commercial Paper	\$64,358	0.82%	Energy Efficiency Program
Taxable Commercial Paper	\$3,105	1.02%	Energy Efficiency Program
Tax Exempt Revenue Bonds	\$89,285	4.25%	Transmission
Taxable Revenue Bonds	\$99,670	5.50%	Lewiston Pump Generating Plant
Total Issued 2017	<u>\$256,418</u>		
<u>Period January 1, 2018 – December 31, 2018</u>			
Tax Exempt Commercial Paper	\$94,396	0.87%	Energy Efficiency Program
Taxable Commercial Paper	\$4,335	1.16%	Energy Efficiency Program
Total Issued 2018	<u>\$98,731</u>		

**Period January 1, 2019 –
December 31, 2019**

Tax Exempt Commercial Paper	\$143,876	1.01%	Energy Efficiency Program
Taxable Commercial Paper	\$4,655	1.36%	Energy Efficiency Program
Tax Exempt Revenue Bonds	\$72,442	4.25%	Robert Moses Power Plant/Transmission
Taxable Revenue Bonds	\$61,794	5.75%	Robert Moses Power Plant/Lewiston Pump Generating Plant
Total Issued 2019	<u>\$282,767</u>		

**Period January 1, 2020 –
December 31, 2020**

Tax Exempt Commercial Paper	\$140,503	1.15%	Energy Efficiency Program
Taxable Commercial Paper	\$8,633	1.51%	Energy Efficiency Program
Total Issued 2020	<u>\$149,136</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 (Accrual Basis)

Outstanding (Issued) Debt

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2017	\$55,332,806	\$46,542,649	\$101,875,454
2018	\$37,082,722	\$44,019,756	\$81,102,478
2019	\$39,419,111	\$43,352,175	\$82,771,286
2020	\$44,087,333	\$42,187,024	\$86,274,358

Proposed Debt

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2017	-	\$6,951,483	\$6,951,483
2018	-	\$7,708,386	\$7,708,386
2019	-	\$10,011,277	\$10,011,277
2020	\$658,056	\$17,848,427	\$18,506,482

Total Debt

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2017	\$55,332,806	\$53,494,132	\$108,826,937
2018	\$37,082,722	\$51,728,141	\$88,810,863
2019	\$39,419,111	\$53,363,452	\$92,782,563
2020	\$44,745,389	\$60,035,451	\$104,780,840

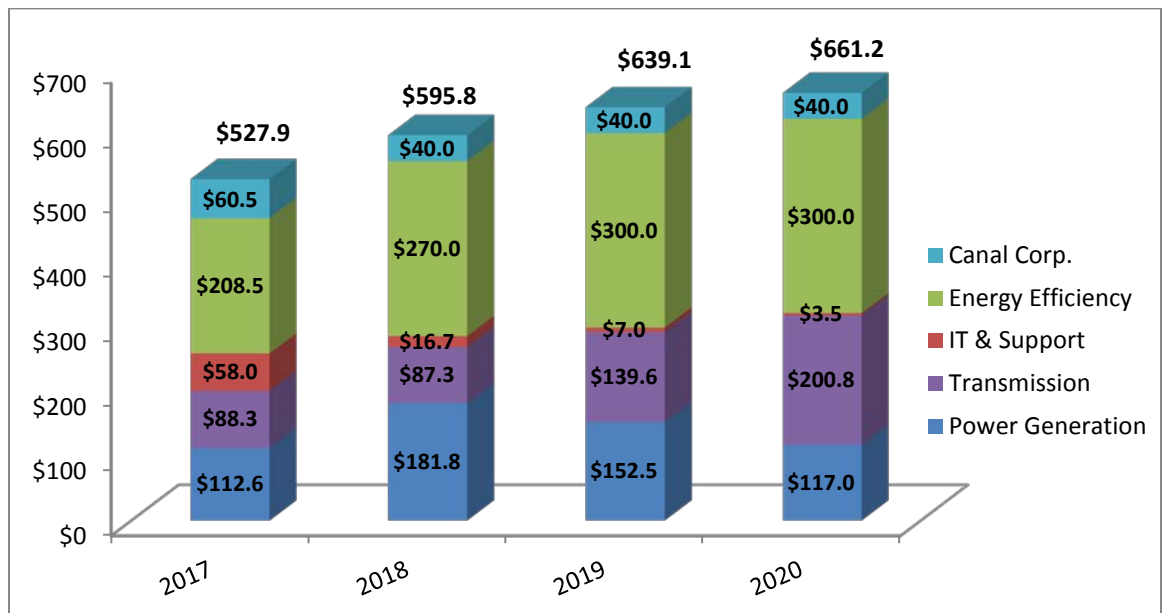
Capital Commitments and Sources of Funding

The Authority's commitments for various capital improvements are approximately \$2.4 billion over the financial period 2017-2020. 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.

Given the information available during the integration process, some assumptions regarding capital commitments with respect to the Canal Corporation have been made for the purposes of preparing this Four Year Plan.

(In thousands)	2017	2018	2019	2020
Transmission Life Extension & Modernization (LEM)	\$ 28,742	\$ 43,292	\$ 90,160	\$ 89,857
St. Lawrence MA1 & MA2 Structure Replacement Phase II	\$ 3,154	\$ 3,067	\$ 3,188	\$ 3,195
Small Clean Power Plants System Hardening	\$ 282	\$ 11,533	\$ 13,047	\$ 13,591
Blenheim Gilboa Relicensing	\$ 3,978	\$ 3,480	\$ 13,47	\$ -
Advanced Hot Gas Path Components at the 500MW Facility	\$ -	\$ 20,009	\$ -	\$ -
Western New York Energy Link	\$ -	\$ 2,150	\$ 24,150	\$ 70,150
St. Lawrence Transmission Breaker & Relay Program	\$ 9,247	\$ 7,546	\$ 6,372	\$ 8,161
Robert Moses Niagara Power Project Life Extension & Modernization Program	\$ 1,723	\$ 41,862	\$ 41,320	\$ 41,567
Canal Corp	\$ 60,463	\$ 40,000	\$ 40,000	\$ 40,000
Lewiston Pump Generating Plant (LPGP) LEM	\$ 45,614	\$ 27,726	\$ 41,864	\$ 29,505
Total Energy Efficiency	\$ 208,510	\$ 270,000	\$ 300,000	\$ 300,000
Other	\$ 166,160	\$ 125,163	\$ 77,690	\$ 65,218
GRAND TOTAL	\$ 527,873	\$ 595,828	\$ 639,137	\$ 661,245

2017-2020 Capital Commitments by Function
(in millions)



**Certification of Assumptions and Method of Estimation for
Budget and Financial Plan 2017-2020 in accordance with the
Comptroller's Regulation § 203.9 Certification**

December 15, 2016

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 2017-2020" 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



Robert Lurie
Chief Financial Officer

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