NEW YORK STATE OF OPPORTUNITY. | NY Power Authority

Memorandum

Date: **May 24, 2016**

To: **THE TRUSTEES**

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

Subject: **Employee Resource Requirements – Smart Generation/Transmission and Asset Management Strategic Initiatives**

SUMMARY

The Trustees are requested to authorize the conversion of twenty-four (24) contractors to permanent employees and the addition of twenty (20) permanent employees to support the Authority's Infrastructure Modernization Strategic Initiatives – Smart Generation & Transmission ("G&T") and Asset Management.

BACKGROUND

Contractor Conversions

The Authority has traditionally relied upon contractors and consultants to manage peaks in workload, including meeting resource needs for large capital, non-recurring O&M, emergent, joint works and third-party reimbursable projects. Although capital budgets have grown over the past seven years, the Authority has not responded by adding staff needed to support the increased workload, and as a result, became dependent on long-term contractors and consultants as "Extension of Staff" to meet its base work load. This situation has become unsustainable for the following reasons:

- In Operations alone, costs for contractors and consultants have increased from $990k in 2009 to $13.55 million in 2015 to support new and ongoing projects, a total of over $52.95 million to date since 2009.

- Consultants are typically more costly than permanent, full-time employees. A recent analysis performed by Operations comparing the costs of consultants and full-time employees concludes that, on average, consultants are 45% to 78% more costly than permanent employees with similar experience and expertise. While some contractors and consultants will continue to be needed to support peak workload situations and provide specific areas of expertise not available within the Authority, converting the recommended contractors will significantly reduce overall costs of managing the current and planned workload.

Infrastructure Modernization Strategic Initiatives

As part of its Infrastructure Modernization Strategic Initiatives, the Authority has been evaluating numerous projects in terms of technical feasibility and economic attractiveness. This evaluation has resulted in the following projects that have favorable economic benefits and will need to be supported by Authority staff:

- Western New York Energy Link – A new 345 kV transmission circuit to reduce chronic system congestion that inhibits the most efficient generation resources from meeting inter-zonal needs. This project represents New York State Electric and Gas Corporation and the Authority's recommended solution to the New York Independent System Operator's Public Policy Transmission Need.

- Communications Backbone – A fiber optic and microwave system connecting the Authority's facilities across the state. This state-of-the-art backbone is a foundational project that will enable and support a host of Smart Grid and Infrastructure Modernization projects that require significant and secure data traffic.

- Data Analytics and Reference Architecture – An information technology-dominated effort to develop and implement a strong data foundation to support other Smart Grid projects. This project is also a foundational project in that, the appropriate up-front data architecture will enable and facilitate many future Smart Grid enhancements.

- Smart Condition Monitoring – This project will enable the Authority to monitor, in real time, the operating condition of its assets such as transformers, power circuit breakers and transmission infrastructure to avoid costly failures and improve overall reliability.

- Next-Generation Energy Management System – A commercial synchronous grid-control system, utilizing high-fidelity sub-second data that provides improved grid observability and situational awareness as well as more automated, real-time control and flexibility to the operators of the grid. Such a system will help optimize power flows, minimize production costs and congestion, and enable faster and more precise reaction to system changes, among other benefits

- Asset Health Monitoring & Diagnostics Center – Central to both the Smart G&T and the Asset Management Strategic Initiatives is the development of an Asset Health Monitoring & Diagnostics ("M&D") Center. The Asset Health M&D Center will analyze data for critical assets to support smart asset management decisions by optimizing existing and future data streams.

- Asset Management – A Strategic Asset Management Plan aligned to ISO-55000 that will result in greater collaboration, financial savings around reduced inventory costs, increased asset utilization, and maintenance optimization.

While all of these projects will continue to undergo further technical and economic evaluations, current business case analysis indicate these strategic projects will provide a positive net present value to the Authority and/or the state's electricity customers. It is important to also note that most of these investments may be included in the Authority's transmission rate base as regulated by the Federal Energy Regulatory Commission.

These projects – and others under consideration – will help transform the operation of New York's grid in terms of enhanced reliability and lower future costs; however, they require the addition of staff to successfully develop and execute.

DISCUSSION

Members of the Authority's management team have updated the Board periodically on NYPA's Strategic Plan and associated initiatives. The plan sets forth an ambitious Infrastructure Modernization effort that will:

- Reduce costly transmission congestion throughout the state.

- Facilitate the integration of large scale renewable generation.

- Increase the situational awareness and, therefore, reliability of New York's bulk power system through the installation of advanced monitoring and control devices supported by a new communications backbone.

- Enhance the Authority's ability to monitor the condition of critical facilities and components.

- Support the introduction and value-enhancing improvements throughout New York's bulk power system.

- Systematically improve Authority facilities in a timely and economic fashion.

After thorough assessment, the Authority intends to pursue significant and economic projects that contribute to the objectives listed above. To develop these projects, however, the Authority needs additional in-house technical resources.

Large Infrastructure Modernization projects, such as the Western New York Energy Link and the Communication Backbone, will create jobs and spur significant job growth and economic activity beyond the Authority.

The Authority has undertaken a thorough effort to estimate the number and type of staff required to implement the projects. This resource requirement aligns with the original projections captured in the original business plans and is expected to peak at about fifty-three (53) additional employees by the year 2020; however, the initial requirement at this juncture is limited to twenty (20). This was based on a "no regrets" analysis designed to ensure that the new employees could be easily and economically redeployed if certain of the proposed projects were cancelled. All the recommended new Authority positions will be technical personnel (i.e., engineering, information technology, and project management) supporting large capital Infrastructure Modernization projects.

The recommended twenty-four (24) contractor conversions in Engineering, Project Management and IT will support ongoing projects and strategic initiatives that are core to ensuring foundational elements that further enhance the Smart G&T and Asset Management Strategic Initiatives necessary to improve reliability and operation of the system.

FISCAL INFORMATION

The conversion of the 24 contractors to permanent employees is expected to save the Authority an estimated $1.6 million per year. The addition of 20 new employees to support the Authority's Infrastructure Modernization Strategic Initiative projects is expected to cost about $3.5 million per year. However, most of these costs may be recoverable through the Authority's FERC-regulated transmission rate base. Importantly, the projects selected are expected to generate positive net present values.

RECOMMENDATION

The Senior Vice President – Technology and Innovation , the Senior Vice President and Chief Engineer – Operations Support Services, the Vice President – Project Management, and the Vice President – Engineering, recommend that the Trustees endorse the conversion of the twenty-four (24) contractors to permanent full-time NYPA employees and the addition of twenty

(20) new employees to support the Authority's Smart Generation & Transmission and Asset Management Strategic Initiatives.

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

Gil C. Quiniones
President and Chief Executive Officer

R E S O L U T I O N

RESOLVED, That the Trustees hereby authorize the conversion of twenty-four (24) contractors to permanent employees and the addition of twenty (20) permanent employees to support the Authority's Infrastructure Modernization Strategic Initiatives – Smart Generation & Transmission 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 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.