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TO: NYPA BOARD OF TRUSTEES
FROM: GIL C. QUINIONES, CHIEF OPERATING OFFICER
DATE: OCTOBER 26, 2010
SUBJECT: MONTHLY REPORT FOR THE BOARD OF TRUSTEES

This report covers the month of September. Despite some significant unplanned events in generation and transmission, market readiness and reliability measures were above monthly targets. Year-to-date lost opportunity cost from unscheduled outages of the generation assets continues to be a marginal share of year-to-date generation revenue.

Power Supply

Plant Performance

Systemwide net generation¹ in September was 1,897,563 megawatt-hours² (MWh), compared to projected net generation of 1,939,264 MWh. For the year, actual net generation is 18,103,326 MWh, which is below the year-to-date net generation target of 19,024,727 MWh.

The fleet availability factor³ was 97.8 percent during September and is 95.2 percent for the year. The generation market readiness factor⁴ was 99.8 percent in September, which was above the monthly target of 99.4 percent. For the year, generation market readiness is also 99.8 percent.

There were two significant unplanned generation events⁵ in September. Unit 7A at the 500-MW Combined Cycle Plant needed a repair on the main stop and control steam valve⁶, resulting in a five-hour outage⁷ and lost revenue of \$0.08 million. The Pouch Terminal Gas Turbine unit had an outage due to low oil pressure, and repairs lasted over one week and resulted in lost revenue of \$0.02 million. The total lost opportunity cost of all unscheduled outages in September was less than \$0.14 million, compared with generation revenue of \$179.7 million.

The year-to-date lost opportunity cost is \$0.70 million compared to generation revenue of \$1,530 million.

River flows at the Niagara project were below historical averages in September, and are forecast to be well below normal for the next several months due to low precipitation in the Great Lakes Basin that has continued since December 2009. At the St. Lawrence-FDR project, flows were below forecast in September and are expected to be below historical averages for the rest of the year.

Transmission Performance

Transmission reliability⁸ in September was 98.26 percent, which was above the target of 97.34 percent. The year-to-date actual reliability is 96.06 percent, below the target of 96.51 percent. Performance has been affected by some unanticipated outages in 2010, several forced outages⁹, and some scheduled outages¹⁰ that have taken longer than expected.

There were three significant unplanned transmission events¹¹ in September for a total of 990 hours. The Niagara-Rochester line was out for 108 hours due to a failed current transformer¹². There were two outages in the north-central part of the system that were attributed to other utilities, and so did not affect NYPA's transmission reliability measure: the Fitzpatrick-Edic line had a 442-hour forced outage due to equipment failure in Entergy's substation, and the Fitzpatrick-Scriba line had a 440-hour emergency outage¹³ in order to isolate and repair the equipment that forced Fitzpatrick-Edic out of service.

Life Extension and Modernization Programs

Work on Unit 23 at the St. Lawrence-FDR project, the 13th of the 16 units, was completed on September 27 as part of the project's Life Extension and Modernization¹⁴ (LEM) program. The LEM upgrade of Unit 24 began on September 29 and is expected to be completed in May 2011. The 2013 scheduled completion date for the LEM project remains unchanged.

Engineering and preliminary planning continues on the Lewiston Pump Generator LEM program. Design of the new turbines and generator step up transformers commenced with the vendors.

Transmission Initiative

NYPA is continuing to work with National Grid, Con Edison, and the Long Island Power Authority (LIPA), regarding a proposed transmission line that would deliver power from Canada and upstate renewable energy projects to New York City. An executive-level meeting between NYPA, National Grid, Con Edison and LIPA to further discuss the Transmission Initiative is anticipated for later this year.

Organizational Realignment

The assessment of potential operational interfaces between the Power Generation and Transmission groups has been issued and the final meeting with the consultant and NYPA took place in September. Action items were finalized, and the Senior Vice President of Transmission will provide a plan to respond to the recommendations with deliverable dates for resolution.

Environmental

There was one environmental event in September. At the Niagara Power Project, there was a release of an unknown amount of oil associated with the catastrophic failure of CT 3119 (the current transformer that caused the outage on the Niagara-Rochester line, discussed above). Clean-up measures were enacted and contaminated materials were properly disposed.

The total year-to-date number of recordable environmental incidents is 19. The 2010 maximum target for recordable environmental incidents is 25.

Technical Compliance – NERC Reliability Standards

As discussed in March's COO report, NYPA reported potential non-compliance and submitted mitigation plans to the Northeast Power Coordinating Council¹⁵ (NPCC) related to three standards. By the end of August, the North American Electric Reliability Council¹⁶ (NERC) approved the plans and submitted them to the Federal Energy Regulatory Commission (FERC)¹⁷. On September 30, NYPA sent NPCC a notice that it had elected to enter into settlement discussions for these self reports. NYPA is awaiting a response from NPCC to confirm receipt of the request and the scheduling of the initial conference.

On July 2, NYPA reported five additional potential violations of standards that apply to NYPA's Critical Infrastructure Protection (CIP) program. These relate to the "Physical Security of Critical Cyber Assets" (CIP-006) and the "Cyber Security – Systems Security Management" (CIP-007) standards. Mitigation plans for four of these self reports were submitted to NPCC in September. One mitigation plan for CIP-006 has yet to be submitted.

Also discussed in the March report, NYPA responded to a Compliance Inquiry letter sent by the NPCC in late February requesting information and documentation regarding a system event that occurred at the Niagara Power Project on February 1 that took a 345 kV transmission line to Ontario, Canada, out of service. This Compliance Inquiry is still open.

In August, Power Supply completed its assessment of the organizational and staffing requirements for managing compliance to NERC's Reliability Standards and issued its final report with recommendations. The assessment recommended placing six full-time-equivalent positions in the Reliability Standards and Compliance group, including four program managers and two engineers reporting to the Vice President of Technical Compliance. These positions were reallocated within Power Supply in order to not increase overall staffing. By the end of September, the four program managers and one of the engineer positions were filled. A candidate for the second engineer position has been identified. Meeting the requirements of

numerous NERC reliability standards is challenging the Power Supply organization, which must assign significant time and personnel resources to ensure compliance.

Internal Audits initiated a 2010 audit of the NERC Reliability Standards compliance in June. The initial phase focused on the CIP standards and included site visits to Clark Energy Center and St. Lawrence-FDR facilities. In September, a draft report summarizing the audit was reviewed by the Vice President of Technical Compliance and the Chief Compliance Officer.

In September, NERC issued an alert relating to the management of system frequency response¹⁸ of the North American Interconnections; it has shown a significant decline for several years. This request requires Generator Owners or Generation Operators to provide information and settings for generator governors¹⁹ for all generators rated 20 MVA²⁰ or higher, or plants that aggregate to a total of 75 MVA or greater net rating at the point of interconnection (i.e. wind farms). NYPA expects to respond to this alert well in advance of its December 9 due date.

Energy Resource Management

NYISO Markets

In September, Energy Resource Management bid more than 1.8 million MWh of NYPA generation into the NYISO markets, netting \$34.4 million in power supplier payments to the Authority.

Production at the Niagara and St. Lawrence-FDR is still below expectations due to low river flows. Production remains 10 percent lower than what was experienced at the same time last year. It is expected that flows will remain lower than forecasted, contributing to the net revenue shortfall. Energy prices are significantly higher relative to last year, but still approximately \$10/MWh below historical average, which also has negatively impacted net revenue. At Blenheim-Gilboa, September production and revenues have fallen as a result of entering into the shoulder period between the summer peak and winter off-peak markets. The Small Clean Power Plants (SCPP's) and the 500-MW Combined Cycle Plant are exceeding year-to-date forecasted net margin.

Fuel Planning & Operations

In September, NYPA's Fuels Group transacted \$14 million in natural gas and oil purchases, compared with \$24 million in September 2009. Year-to-date natural gas and oil purchases are \$169 million compared with \$274 million year-to-date in September 2009. Total year-to-date reduction of \$105 million is mainly attributed to cessation of operation at the Poletti Power Project (-\$60 million year-over-year) and lower cost of fuel to meet higher generating output for the 500-MW unit (-\$52 million). Decreased costs at the Flynn Plant (-\$10 million) due to outage were offset by higher costs associated with increased generation at the SCPP's (+\$17 million).

Regional Greenhouse Gas Initiative

On December 1, Auction 10 of the Regional Greenhouse Gas Initiative²¹ (RGGI) CO₂ Budget Trading Program will be held, but NYPA currently has no plans to participate having secured all current RGGI obligations.

Office of the Chief Operating Officer

LPPC Fall 2010 CEO Meeting

NYPA and LIPA hosted the Large Public Power Council's (LPPC)²² Fall 2010 CEO meeting in New York City, October 16 – 18. CEO's and staff from the group's 24 member utilities heard reports from LPPC's four Task Forces on Government Relations, Tax and Finance, Environment, and Energy Regulation, and participated in discussions with special guests, including FERC Commissioner John Norris and political correspondent and author John Heilemann.

Climate and clean energy goals continue to be key industry issues for the LPPC member utilities. While the US Environmental Protection Agency is developing regulations to curtail emissions of greenhouse gases and other pollutants from stationary sources (including electric generating units), LPPC supports an alternative approach that includes comprehensive Federal legislation that caps emissions and provides incentives to support clean and renewable energy sources. Members eagerly await the outcomes of the November elections, which will influence whether Federal climate and clean energy legislation is passed in 2010, and/or prioritized in 2011. LPPC also supports region-specific considerations given to transmission project planning and cost allocation, and is developing a plan to engage FERC and NERC on reliability standards that are requiring increasing and significant resources from member utilities to ensure compliance.

FERC Notice of Proposed Rulemaking on Transmission Planning and Cost Allocation

In June, FERC solicited comments from industry stakeholders on proposed amendments to Order 890²³ that would direct local and regional transmission planning to consider public policy requirements (i.e. renewable energy goals), require neighboring planning regions to develop interregional transmission plans, and remove rights-of-first refusal granted to incumbent transmission providers from FERC-approved tariffs.

NYPA participated in comments submitted to FERC in September by LPPC, as well as comments drafted by the New York Transmission Owners (NYTO's). The two sets of comments were mostly consistent, but LPPC considered issues of FERC jurisdiction and the impacts on its nationwide group of public power entities; the NYTO's restricted its commentary to impacts on New York's transmission planning. For example, LPPC argued that FERC does not have the authority to require that public policy goals be considered in transmission plans, while the NYTO's noted that the NYISO's Comprehensive System Planning Process currently

considers public policy initiatives, including the development of renewable resources and demand reduction programs.

Generally, both sets of comments urged FERC to consider the uniqueness of regional transmission planning and cost allocation, and not to impose generic transmission planning templates on stakeholders.

Environmental Protection Agency (EPA) Proposed “Transport Rule”

In September, NYPA submitted comments on EPA’s proposed “Transport Rule”, published August 2. The rule addresses a Clean Air Act requirement that one State not contribute significantly to nonattainment of any other State with respect to any primary and secondary National Ambient Air Quality Standards. EPA used an integrated planning model to develop emissions budgets for sulfur dioxide and nitrous oxides in 32 States (including New York), and used a similar methodology to allocate emissions allowances to individual electricity generating units in compliance years 2012 and 2014.

NYPA submitted that because EPA used an integrated planning model based entirely on economic inputs, it ignored each unit’s historical heat rate, permitted emissions, contractual agreements, and relevant reliability rules. As a result the emissions allocations were severely restrictive and could jeopardize operations of otherwise clean power plants, as well as system reliability. Several other electric generating utilities have submitted concerns about their unit allocations, and it appears that the EPA’s modeling assumptions and allocation methodology may be an industry-wide issue.

Sustainability Action Plan

NYPA continues to make progress on implementing the 41 action items laid out in the Sustainability Action Plan. Accomplishments this month include: launching an industrial hygiene²⁴ study at Blenheim-Gilboa and the 500-MW project, with a particular emphasis on noise and indoor air quality; selecting consultants to assist in enhancing our Job Hazard Analysis program; developing the framework for NYPA’s annual sustainability report, which will follow the Global Reporting Initiative’s²⁵ guidelines and be released along with the Annual Report in 2011; conducting energy audits at the Niagara Power Project and St. Lawrence-FDR facilities; initiating waste audits at White Plains and the major generating facilities; and, finally, completing a climate change adaptation plan for NYPA’s facilities in New York City.

GLOSSARY

¹ **Net Generation** – The energy generated in a given time period by a power plant or group of plants, less the amount used at the plants themselves (station service) or for pumping in a pumped storage facility. Preliminary data in the COO report is provided by Accounting and subject to revision.

² **Megawatt-hour (MWh)** – The amount of electricity needed to light ten thousand 100-watt light bulbs for one hour. A megawatt is equal to 1,000 kilowatts and can power about 800 homes, based on national averages.

³ **Availability Factor** – The Available Hours of a generating unit over the Period Hours (hours in a reporting period when the unit was in an active state). Available Hours are the sum of Service Hours (hours of generation), Reserve Shutdown Hours (hours a unit was not running but was available) and Pump Hours (hours a pump storage unit was pumping water instead of generating power).

⁴ **Generation Market Readiness** – The availability of generating facilities for bidding into the NYISO market. It factors in available hours and forced outage hours which drive the results.

⁵ **Significant Unplanned Generation Events** – Forced or emergency outages of individual generator units of duration greater than 72 hours, or with a total repair cost of greater than \$75,000, or resulting in greater than \$50,000 of lost revenues.

⁶ **Main Stop and Control Steam Valve** - For combined cycle applications, main stop and control valves are designed to protect steam turbines from overspeed, optimize turbine output and performance, and assist in starting up the steam turbine.

⁷ **Outage** – An outage exists whenever a unit is not synchronized to the grid system and not in a Reserve Shutdown state. An outage starts when the unit is either desynchronized from the grid or when it moves from one unit state to another (for example, goes from a reserve shutdown to a maintenance outage.) The outage ends when the unit is synchronized to the grid or moves to another unit state. An outage is Planned if it was submitted in advance for a predetermined duration. An outage is Scheduled if it was either submitted in advance (Planned) or can be delayed a few days (Maintenance).

⁸ **Transmission Reliability** – A measurement of the impact of forced and scheduled outages on the statewide system's ability to transmit power.

⁹ **Forced Outages** – An outage that requires immediate removal of a unit from service, automatically. This outage is considered Unplanned and Unscheduled.

¹⁰ **Scheduled Outages** – An outage is Scheduled if it was either submitted in advance (Planned) or can be delayed a few days (Maintenance).

¹¹ **Significant Unplanned Transmission Events** – Forced or emergency outages of individual transmission lines which directly affect the reliability of the state’s transmission network, or affect the availability of any component of the state’s transmission network for greater than 8 hours, or that have a repair cost greater than \$75,000.

¹² **Current Transformer** - A current transformer is used to measure line current for metering and protective relaying, and is designed to step the transmission system flows down to a level that is safe to bring into a relay build where one can measure a scaled down current.

¹³ **Emergency Outage** – An outage that requires immediate removal of a unit from service, under an operators’ control. This outage is considered Unplanned and Unscheduled.

¹⁴ **Life Extension and Modernization Programs**—Major undertaking in which all the turbines at the St. Lawrence-Franklin D. Roosevelt project are being replaced and the generators and other components significantly refurbished. The programs are intended to ensure that the projects operate at maximum efficiency far into the future.

¹⁵ **Northeast Power Coordinating Council (NPCC)** - The Northeast Power Coordinating Council, Inc. (NPCC) is the cross-border regional entity and criteria services corporation for Northeastern North America. NPCC’s mission is to promote and enhance the reliable and efficient operation of the international, interconnected bulk power system in Northeastern North America pursuant to an agreement with the Electric Reliability Organization (ERO) which designates NPCC as a regional entity and delegates authority from the U.S. Federal Energy Regulatory Commission (FERC), and by Memoranda of Understanding with applicable Canadian Provincial regulatory and/or governmental authorities. The ERO to which NPCC reports is the North American Electric Reliability Corporation (NERC).

¹⁶ **North American Electric Reliability Corporation (NERC)**—The organization that develops and enforces mandatory reliability standards for the bulk power system in the United States, issues long-term and seasonal reliability forecasts and monitors the power system. (NERC standards are also mandatory and enforceable in parts of Canada.)

¹⁷ **Federal Energy Regulatory Commission (FERC)** – An independent agency that regulates the interstate transmission of electricity, natural gas, and oil. FERC also reviews proposals to build liquefied natural gas (LNG) terminals and interstate natural gas pipelines as well as licensing hydropower projects.

¹⁸ **Frequency Response** – A measure of the effectiveness with which a circuit, device, or system transmits the different frequencies applied to it.

¹⁹ **Governors** – The governor system controls the power applied to the prime over shaft in an electric generator, which regulates the generator speed (RPM’s) or generator power (MW) to balance output with the load on the grid.

²⁰ **MVA** - Millions of voltamperes, which are a measure of apparent power, the product of the voltage (in volts) and the current (in amperes). It comprises both active and reactive power.

²¹ **Regional Greenhouse Gas Initiative (RGGI)** – A cooperative effort by Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. These ten states have capped CO₂ emissions from the power sector, and will require a 10 percent reduction in these emissions by 2018. RGGI is composed of individual CO₂ Budget Trading Programs in each of the ten participating states. Regulated power plants can use a CO₂ allowance issued by any of the ten participating states to demonstrate compliance with the state program governing their facility. Taken together, the ten individual state programs function as a single regional compliance market for carbon emissions, the first mandatory, market-based CO₂ emissions reduction program in the United States.

²² **Large Public Power Council (LPPC)** – An organization comprised of 23 of the nation's largest locally owned and controlled, not-for-profit power systems. LPPC works to develop and advance consumer-oriented positions on national energy issues.

²³ **Order 890** – Published on February 15, 2007, FERC Order 890 directed a number of changes and requirements to its pro forma transmission tariff, designed to ensure non-discriminatory open access to transmission service.

²⁴ **Industrial Hygiene** – The science of anticipating, recognizing, evaluating, and controlling workplace conditions that may cause worker injury or illness, using environmental monitoring and analytical methods to detect the extent of worker exposure and employ engineering, work practice controls, and other methods to control potential health hazards.

²⁵ **Global Reporting Initiative (GRI)** – An organization that developed the world's most widely used sustainability reporting framework through a consensus-seeking process engaging participants from business, civil society, labor, and professional institutions. The GRI framework includes a standardized approach to sustainability reporting and sector-specific supplemental frameworks, including one for the electric utility sector.