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TO: NYPA BOARD OF TRUSTEES
FROM: EDWARD WELZ, ACTING CHIEF OPERATING OFFICER
DATE: DECEMBER 15, 2011
SUBJECT: MONTHLY REPORT FOR THE BOARD OF TRUSTEES

This report covers performance of the Operations group in November.

Power Supply

Plant Performance

Systemwide net generation¹ was 2,552,071 megawatt-hours² (MWh) in November, compared to projected net generation of 2,230,700 MWh. Year-to-date net generation is 25,376,647 MWh, compared to the target of 23,268,791 MWh.

The fleet availability factor³ was 91.0 percent in November and is 96.5 percent for the year. Generation market readiness factor⁴ was 100.0 percent in November, compared with the monthly target of 99.4 percent. Year-to-date generation market readiness factor is 99.9 percent.

There were no significant unplanned generation events⁵ in November.

Generation revenue in November was \$143.7 million, with no loss of revenue for the month. Year-to-date lost opportunity cost is \$2.31 million, about 0.12 percent of year-to-date generation revenue of \$1,850.0 million.

Niagara River flows in November 2011 were above the historical average. They are expected to be above average in the beginning of 2012. St. Lawrence River flows during November 2011 were above forecast. River flows are expected to be at or above historical levels average for 2012.

Transmission Performance

Transmission reliability⁶ in November was 95.43 percent, which was below the target of 99.27 percent. Year-to-date transmission reliability is 96.98 percent, below the target of 97.63 percent.

There were no significant unplanned transmission events⁷ in November.

Environmental

There were no reportable events for November.

Year-to-date number of recordable environmental incidents is 31; the 2011 target is 27.

Relicensing – Niagara Power Project

The Empire State Development Corp. was briefed on the financial benefits to Western NY from Niagara Relicensing.

The ninety percent design for the Frog Island Habitat Improvement Project was presented and approved by the Ecological Standing Committee so that the regulatory permitting process can begin.

Exterior and interior construction work continues at Reservoir State Park including utilities at the new comfort station and Winter Pavilion and outdoor ice skating rink grading. Landscaping work was completed at the Niagara intakes, with shelter and kiosk fabrication for the intakes area still ongoing and planned for installation in February 2012.

Relicensing – St. Lawrence-FDR Power Project

Bids were received for construction of the Little Sucker Brook Habitat Improvement Project. Foundation walls were poured for the construction of the new pumphouse on the Wilson Hill Causeway. This work will continue through the winter, weather permitting. Construction of two new fishing piers in Waddington that will be compliant with the Americans with Disabilities Act continues started with the installation of pier foundations.

Relicensing – Blenheim-Gilboa Project

Phase One of Blenheim-Gilboa Project relicensing has commenced with the award of a contract to the Lead Relicensing Consultant who will be preparing the Preliminary Application Document to be filed by NYPA along with a Notice of Intent late in 2013.

Technical Compliance – NERC Reliability Standards

NYPA continues to implement its work plan for responding to a 2010 North American Electric Reliability Corporation⁸ (NERC) Alert Recommendation that requires NYPA to review

its current facility ratings methodology for their solely and jointly owned transmission lines to verify that the methodology used to determine facility ratings is based on actual field conditions (In particular line ground clearances). NYPA's assessment progressed as planned in November. The consultants performing the analyses of NYPA's transmission facilities confirmed that all studies will be completed by the end of 2011. NYPA will review the results of the analyses with the NYISO in January 2012 and discuss next steps. Any remediation plans will be coordinated with the NYISO and will be reported to NERC through the Northeast Power Coordinating Council⁹ (NPCC).

In November, the industry cast final recirculation ballots and approved both the revised Bulk Electric System (BES) Definition and the Technical Principles for Demonstrating BES Exceptions. The NERC Board of Directors is expected to approve both in late January 2012 with FERC approval anticipated in March 2012. With the adoption of the new BES definition, NYPA has to provide NPCC with a Transition Plan for applying the NERC Reliability Standards to all BES transmission and generation assets, if any, according to the new definition. In NYPA's case, additional transmission elements will become part of the BES. NYPA's Transition Plan is currently under development and will be submitted to NPCC in January 2012.

Representatives from the NYISO and the New York Transmission Owners (NYTOs) continue to work together to plan for reliability compliance management obligations that could result from the revised BES definition. Discussions in November continued to focus on reaching agreement on the methodology for managing the requirements for Transmission Operator (TOP) and Transmission Planner (TP) registration for newly defined BES assets under the new definition. The NYISO and the NYTOs are developing a document that will be the basis for an agreement in which they will share the functional responsibility and compliance accountability for the NERC Reliability Standards and requirements applicable to new BES assets in New York. The impacts of the potential new functional registrations for NYPA continue to be monitored and reviewed by the NYPA staff.

Research & Technology Development (R&TD)

R&TD and Project Management awarded a contract to GE Bently for the Real Time Continuous Monitoring for Niagara Lewiston Pumped Generation Plant (LPGP). This is a joint project to install a condition monitoring system to measure the hydro generators' air-gap and shaft vibration to alert plant personnel of any abnormalities. This system is flexible and can incorporate future expansions.

R&TD (along with Power Supply and Public Affairs) hosted the November 9 Brown Bag Briefing by Arshad Mansoor (Senior Vice President, R&D, EPRI). R&TD also hosted the EPRI quarterly breakout meetings for the Environmental, Generation, and Power Delivery and Utilization program areas.

The review of the final Thermal Energy Storage Study report was completed and a presentation was prepared for disseminating the results and recommendations to Power Supply. The presentation will recommend proceeding with the initial design phase for a thermal energy storage system using ice harvester technology at the Astoria 500 MW plant.

Two maintenance procedures which required an outage of the 500-MW Combined Cycle Plant's combustion turbine and HRSG 7A and the Mark VI Controllers H7A and G7A respectively were performed. The first concerned the Desuperheater Performance Tuning and Optimization Project. The second was related to the Combustion Dynamic Monitoring (CDM) project and staff provided support to the Wood Group to install an additional modbus communication module for increasing data transfer from the Mark VI Controller for combustion turbine 7A to the CDM System.

R&TD staff held discussions with the contractor and the Computer Applications group regarding the Dynamic Line Rating project's secure data exchange with the SCADA/Energy Management System (EMS). Additional discussions took place with NYPA IT regarding wireless communications systems to be deployed.

Energy Resource Management

NYISO Markets

In November, Energy Resource Management bid more than 2.5 million MWh of NYPA generation into the NYISO markets, netting \$49.5 million in power supplier payments to the Authority. Year-to-date net power supplier payments are \$520.0 million.

Fuel Planning & Operations

In November, NYPA's Fuels Group transacted \$16.3 million in natural gas and oil purchases, compared with \$12.5 million in November 2010. Year-to-date natural gas and oil purchases are \$236.5 million, compared with \$194.3 million at this point in 2010. The total year-to-date \$42.2 million increase is mainly attributed to the start up of Astoria Energy II Plant (+\$41.5 million), increased fuel cost at the 500-MW Combined Cycle Plant (+\$3.5 million), and increased generation at the Small Clean Power Plants (+\$6.3 million) and the Richard M. Flynn Power Plant (+\$3.5 million), which was offset by cessation of operations at the Poletti Power Project (-\$12.6 million, the last day of operations was January 31, 2010).

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 pumped storage unit was pumping water instead of generating power).

⁴ **Generation Market Readiness Factor** – The availability of generating facilities for bidding into the New York Independent System Operator (NYISO) market. It factors in available hours and forced outage hours that 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 **Transmission Reliability** – A measurement of the impact of forced and scheduled outages on the statewide system's ability to transmit power.

⁷ **Significant Unplanned Transmission Events** – Forced or emergency outages of individual transmission lines that 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 eight hours, or have a repair cost greater than \$75,000.

⁸ **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).

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