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TO: NYPA BOARD OF TRUSTEES
FROM: EDWARD WELZ, CHIEF OPERATING OFFICER
DATE: NOVEMBER 16, 2012
SUBJECT: MONTHLY REPORT FOR THE BOARD OF TRUSTEES

This report covers performance of the Operations group in October 2012.

Operations

Plant Performance

Systemwide net generation¹ was 1,780,304 megawatt-hours² (MWh) in October 2012, compared to projected net generation of 2,282,815 MWh. Year-to-date net generation is 20,803,312 MWh, compared to the target of 23,091,159 MWh.

The fleet availability factor³ was 83.8 percent in October 2012, and 89.4 percent for the year. Generation market readiness factor⁴ was 99.5 percent in October, compared with the monthly target of 99.4 percent. Year-to-date generation market readiness factor was at 99.7 percent.

No significant outages occurred during the month. Only one significant outage that began in August continued into October:

- a) A failure occurred on the Main Generator Step-Up Transformer at Gilboa Unit 2. The unit is expected to return to service by the end of December 2012.

Generation net revenue in October was \$13.6 million with a loss of revenue of \$0.06 million for the month. Year-to-date Generation net revenue was \$181.4 million and lost opportunity cost was \$0.96 million.

Niagara River flows in October 2012 continued to be below the historical average, and are expected to be below average for at least the next two years. St. Lawrence River flows during October 2012 were also below forecast. River flows are expected to be below historical levels beyond 2013.

Transmission Performance

Transmission reliability^[i] in October was 91.70 percent, which was above the target of 91.13 percent. Year-to-date transmission reliability is 97.62 percent, above the target of 96.67 percent.

There were no significant unplanned transmission events to report in October.

Environmental

There were three reportable events for October 2012. For the year, there have been 29 reportable incidents. The year-to-date target as of October 2012 is 25.

Relicensing – Niagara Power Project

A joint NYPA and State Parks ribbon cutting ceremony for the now-completed Reservoir State Park improvement project was held on October 23.

With OPRHP reaching a final decision regarding coatings for Schoellkopf and Whirlpool overlooks railings, the railing are now being fabricated and installed.

Once this work is completed, the Recreational Enhancement Projects associated with the Niagara Relicensing will be nearly complete.

Work continues at the HIPs. Excavation work is completed for the Motor Island HIP, and implementation of the planting plan is underway. NYS Dept. of State has provided their concurrence with the plan to restore Frog Island. Design studies are underway to support detailed design of the last of the HIPs, at Strawberry Island, which is expected to be constructed in 2014 and 2015.

Relicensing – St. Lawrence-FDR Power Project

Construction of the pumphouse for the Little Sucker Brook controlled level pond continues. Work is completed except for pump installation, completion of the roof and final wiring. Work is pended awaiting installation of electric service by National Grid, who has been unable to schedule an installation time because of ongoing storm recovery work (Sandy).

The WHWMA pumphouse is complete. Start up and testing was conducted successfully in October. There have been some minor startup issues but none that prevent turning the facility over to DEC for operation

Construction of the Nichols Island Controlled Level Pond has commenced. Sand Road, the western access to the project, is being reconstructed. Land clearing for the other roads and dikes is beginning at the east end of the HIP from Bradford Island.

Two additional lake sturgeon spawning beds are being installed in the RMPD tailrace this fall. The hopper barge and tugs are in route to the site. Actual bed placement is expected to take place beginning November 19.

Relicensing – Blenheim-Gilboa Project

Baseline study field work is complete for this season. Preparation of the preliminary licensing documents continues. At this time no significant regulatory issues that would impact relicensing have been identified.

Life Extension and Modernization Programs

St. Lawrence LEM Upgrade

Work on Unit 20 at the St. Lawrence-FDR Power Project, the 16th of the 16 units, began on May 9, 2012, as part of the Project's Life Extension and Modernization^[1] (LEM) program. Turbine overhaul with Alstom and rotor refurbishment with GE have been completed. Unit re-assembly with St. Lawrence Site Staff continues. All major mechanical tasks including installation of the turbine assembly and rotor assembly has been completed. Unit Return to Service (RTS) remains on track for 12/21/12. The 2013 scheduled completion date for the LEM project remains unchanged.

LPGP LEM

The third feeder outage (Feeder 4) to replace the third GSU, and potheads at the Switchyard and LPGP in addition to upgrading of the Isolated Phase Bus sections commenced on October 1, 2012 as scheduled and will be completed on November 27, 2012. The third GSU has been assembled and installed in the bay, the fourth GSU arrived at the site on November 6th (delayed due to hurricane). The new Unit Control Board for the first unit to be upgraded (#11) will be inspected and tested starting the week of November 6th and the software development continues. The assembly of the first new turbine continues in Hitachi's facility located in Japan and is scheduled to arrive at LPGP in April 2013. The fabrication of the second and third turbines components are well underway and the fourth turbine was released for fabrication. The first unit outage is scheduled to begin December 2012 with the program completion scheduled for 2020. Additional expenditure authorization will be requested from the Trustees at an interim November Trustee Meeting.

RMNPP Unit 13 Standardization

The outage for the standardization work commenced on September 14th, due to Unit 3 generator step up transformer (GSU) failure. Voith has commenced with assembly of the

new stator in the Assembly Bay which is scheduled to be completed in April 2013 in time for installation into Unit 13.

Technical Compliance – NERC Reliability Standards

In October, Technical Compliance continued to oversee compliance enforcement actions related to several of the NERC Reliability Standards that are applicable to NYPA's NERC registrations. The actions and statuses are briefly stated below:

- a. **PRC-005-1 R2 - Transmission and Generation Protection System Maintenance and Testing** (NERC Violation ID: NPCC2011-00236): NYPA self-reported to the Northeast Power Coordinating Council (NPCC) a potential violation of the requirement R2 of PRC-005-1 on February 11, 2011. The associated mitigation plan closure documents were reviewed and accepted by NPCC staff in early 2012. NYPA met with NPCC staff on August 15, 2012 for the initial settlement discussions. As a result of that meeting, NPCC staff requested some additional information that was provided to NPCC on October 3, 2012.
- b. **CIP-004-3 R2 - Cyber Security - Personnel and Training** (NERC Violation ID: NPCC20122-00446): NYPA self-reported to NPCC a possible violation of requirement R2 of CIP-004-3 on February 16, 2012. The mitigation plan and associated closure documents were submitted to NPCC for review and approval in April 2012. NPCC submitted them to NERC for approval on May 18 and NERC approved them and submitted them to FERC on June 14. NYPA is awaiting the initiation by NPCC of settlement discussions.
- c. **CIP-004-3 R4 - Cyber Security - Personnel and Training** (NERC Violation ID: NPCC2012-200459): NYPA self-reported to NPCC a possible violation of requirement R4 of CIP-004-3 on March 12, 2012. The mitigation plan was submitted to NPCC in April 2012 and was completed in late June 2012. The mitigation plan closure documents were submitted to NPCC in July 2012 for review and approval. NPCC verified the completion of the mitigation activities on September 4, 2012. This possible violation was closed in October under NERC's Find, Fix, and Track (FFT) process as a remediated issue. Remediated issues are reported to FERC in an informational filing. No penalty or sanction was assigned to this remediated issue.
- d. **CIP-006-3 R4 - Cyber Security – Physical Security of Critical Cyber Assets** (NERC Violation ID: NPCC2012-200657): NYPA self-reported to NPCC a possible violation of requirement R4 of CIP-006-3 on June 21, 2012. Upon review, NPCC dismissed the R4 self-report and issued a possible violation of CIP-006-3 R1.6. The mitigation plan was submitted to NPCC for review and approval on August 16, 2012. On

September 05, 2012 NPCC accepted the submitted mitigation plan and forwarded the Mitigation plan to NERC for its review and approval. On October 3, NYPA submitted the mitigation closure documentation. NPCC verified the completion of the mitigation activities on October 17, 2012. As a result, this possible violation will be eligible for closure under NERC's Find, Fix, and Track (FFT) process as a remediated issue. The remediated issues will be reported to FERC in an informational filing. No penalty or sanction will be assigned to this remediated issue. In October, NYPA successfully completed eighteen (18) self-certifications for the Critical Information Protection (CIP) NERC Reliability Standards. In addition, compliance assessments were successfully completed for an additional sixteen (16) CIP standards in preparation for self-certifications due in November 2012. These self-certifications were or will be made pursuant to NYPA's registration as a Transmission Owner, Generator Owner, Generator Operator and Load Serving Entity.

NYPA met with NYISO staff to review NYPA's list of newly identified Bulk Electric System (BES) assets, pursuant to the new BES definition that FERC is expected to approve before the end of 2012. The requirements of any standards related to this change in definition will be enforceable approximately two (2) years after FERC approves the new definition. The purpose of NYPA's meeting with the NYISO was to discuss the assignment of Transmission Operator (TOP) and Transmission Planner (TP) compliance accountability for NYPA's newly identified BES assets. The NYISO will retain compliance accountability for approximately 50% of NYPA's 41 newly identified assets, since the NYISO already has operational control of those assets pursuant to existing agreements with NYPA. NYPA also plans to engage other New York Transmission Owners (TO) regarding compliance accountability for the remaining assets. In addition, NYPA may be able to exclude certain of these new assets from being subject to the reliability standards.

NYPA continues to implement its work plan for responding to a 2010 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). The assessment revealed that there are about 260 line clearance discrepancies in NYPA's 1,400 miles of transmission lines; about 50 of which are on lines rated as high priority. Staff has engaged contractors and other utilities to remediate the discrepancies on the high priority lines. Northline Utilities and Macedon Excavating are progressing with work in the field. NYSEG has completed remediation of one of two high priority underbuilds on distribution lines owned by NYSEG. In addition, a cost reimbursement agreement has been finalized with National Grid and is pending approval. Other third parties with permits are also addressing mitigation of other discrepancies. Work on the high priority lines is targeted to be completed by the end of 2012. However, the utilities have informed NYPA that efforts associated with recent impacts of Hurricane Sandy may have an impact on the schedule. Remediation of

discrepancies on the medium priority lines is being planned for completion in 2013. A contract has been awarded to Quanta Technology / Realtime Utility Engineers to develop engineering packages for mitigating the discrepancies on the medium and low priority transmission lines.

Energy Resource Management

NYISO Markets

In October, Energy Resource Management (ERM) bid 1.97 million MWh of NYPA generation into the NYISO markets, netting almost \$31.75 million in power supplier payments to the Authority. Year-to-date net power supplier payments are \$412.9 million.

Fuel Planning & Operations

In October, NYPA's Fuels Group transacted \$20.2 million in natural gas and oil purchases, compared with \$12.9 million in October 2011. Year-to-date natural gas and oil purchases are \$176.2 million, compared with \$220.3 million at this point in 2011. The total \$44.1 million decrease is mainly due to the lower cost of fuel/lower generation at the 500-MW Combined Cycle Plant (-\$27.1 million for fuel cost and -\$15.3 for March/April outage), Small Clean Power Plants (-\$16.7 million) and the Richard M. Flynn Power Plant (-\$14.0 million), which was offset by the start up of the Astoria Energy II Plant (+\$29.0 million) in July of 2011.

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.

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

^[ii] **Life Extension and Modernization Program** — A 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 program is intended to ensure that the project operates at maximum efficiency far into the future.