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TO: NYPA BOARD OF TRUSTEES
FROM: EDWARD WELZ, CHIEF OPERATING OFFICER
DATE: MAY 9, 2013
SUBJECT: MONTHLY REPORT FOR THE BOARD OF TRUSTEES

This report covers performance of the Operations group in April 2013.

Operations

Plant Performance

Systemwide net generation¹ was 1,906,660 megawatt-hours² (MWh) for April 2013 which is above the projected net generation of 1,878,060 MWh. For the year, net generation was 7,992,399 MWh which is above the projected target of 7,856,124 MWh.

The fleet availability factor³ was 83.58 percent in April 2013 and 86.77 percent for the year. Generation market readiness factor⁴ was 99.87 percent in April, which is above the monthly target of 99.40 percent. Year-to-date generation market readiness factor was at 99.32 percent.

There was one significant forced outage occurred during April:

1. There was a leak in the draft tube door of Robert Moses Unit 4. The unit was out for 10 days.

Generation net revenue in April was \$9.8 million with a loss of revenue of \$0.03 million. For the year, net revenue was \$89.1 million while revenue loss was \$1.3 million.

Niagara River flows in April 2013 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 April 2013 were also below forecast. River flows are expected to be below historical levels beyond 2013.

Transmission Performance

Transmission reliability^[i] in April was 92.54 percent, which was below the target of 94.59 percent. Year-to-date transmission reliability is 95.64 percent, above the target of 94.85 percent.

The Feeder Y-49 remained out of service in April and is due back on line in May.

Safety

The NYPA DART (Days Away, Restricted or Transferred) Rate for April 2013 is 1.44 compared to the target of 0.78. For the year, the DART Rate is 0.77.

The Operations DART Rate for April 2013 is 1.06 compared to the target of 1.08. For the year, the DART Rate is 0.85.

In April, one lost time incident occurred at Niagara and another with a WPO Headquarters employee. The Headquarters employee twisted his upper body when emptying ice from a NYPA aircraft. At Niagara, a Buildings and Grounds person had a leg injured when carrying a recycling tote through a double doorway. Both incidents resulted in lost work time.

Environmental

There was one reportable incident in April 2013.

1. A release of R-22 refrigerant from an air conditioning unit at Niagara exceeded the NYSDEC reportable quantity of one pound.

For the year, there have been three incidents. The annual target is 32 incidents.

Relicensing – Niagara Power Project

With the arrival of Spring, the natural world comes alive, so Habitat Improvement Project maintenance and monitoring resumes. At Niagara the Common Tern HIP is being readied expecting another highly productive year.

Preparations continue for commencing construction of the Frog Island Habitat Improvement Project (HIP) this season. Bids have been received and construction costs should be close to the engineering estimate. A contract award is being proposed at the May Trustee's meeting. Design work on the Strawberry Island HIP, which is the last of the Niagara HIPs, continues.

Support continues to be provided for the Maid of the Mist proposal. Planning and coordination is being provided to minimize the disturbance and interruption of use of NYPA recreational facilities that will be impacted by this proposal.

Relicensing – St. Lawrence-FDR Power Project

The St Lawrence HIPs are also thawing out and maintenance and monitoring are in full swing. Most of this work is being conducted in conjunction with NYSDEC personnel supported by NYPA under our O&M agreement with NYSDEC.

Construction of the Nichols Island Controlled Level Pond HIP is proceeding well. The project is on schedule for completion early this summer.

Construction on the Little Sucker Brook HIP is back underway. The pumphouse is being completed. This will be followed by the installation of new water control structure across Rt. 37 in Waddington.

The new Coles Creek Marina building is nearly complete and will be open early this summer. This will provide an enormous improvement to the users of the Coles Creek Marina facilities.

Relicensing – Blenheim-Gilboa Project

Preparation of the preliminary licensing documents continues. A Strategy White Paper is being prepared to support executive decision making. At this time, no significant regulatory issues that would impact relicensing have been identified.

Life Extension and Modernization Programs

St. Lawrence LEM Upgrade

Unit 17 was taken out of service on January 2, 2013 to start unit automation work. The St. Lawrence Electrical, Mechanical, and Test departments continue to work on the demolition/installation activities including pulling and terminating cable, installation of the distribution feedback assembly, and GCS offline testing. The unit is projected to return to service on June 28, 2013. The 2013 scheduled completion date for the LEM Program remains unchanged.

Transmission LEM

Project teams continue coordinating activities to support engineering, procurement, and construction activities associated with the St. Lawrence Circuit Breaker and Relay Replacement as well as the Niagara Relay Replacement projects approved under the program. Protection system upgrade for the MSC-7040 transmission line (765kV) with Hydro-Quebec is on schedule to be completed in May 2013. Approval of a contract award for procurement of twenty-one 115kV and ten 230kV circuit breakers is being requested at the May Trustee meeting.

Relay replacements are on-going at Blenheim-Gilboa and Clark Energy Center.

Replacement of the spare auto-transformer at Massena Substation is in progress with equipment delivery expected in the fall of 2013.

Refurbishment of Auto-Transformer 1B at Marcy is ongoing with completion expected in June 2013. Approval of a contract award for refurbishment of the remaining auto-transformers and reactors at Marcy as well as Massena Substation is being requested at the May Trustee meeting.

Tower modeling of the weathering steel structures has commenced. Proposals have been received and are being evaluated for painting of transmission structures in the St. Lawrence region.

LPGP LEM

The fabrication of the spare GSU commenced and is scheduled to be delivered in August 2013. The first two new Unit Control Boards (UCB's) for the first two units to be upgraded (#11 and #5) were delivered. The new Unit 11 UCB and static excitation cabinet and transformer have been installed, and the installation of cable trays, conduits and cables are underway. The first new turbine was delivered from Japan four days ahead of schedule and the turbine shaft is presently being attached to the new runner in the Assembly Bay. The assembly of the second turbine commenced and the fabrication of the third turbine components are well underway. The fourth and portions of the fifth and sixth turbine components were released for fabrication.

The outage for the first unit started December 12, 2012 and refurbishment work is well underway; line boring for the new greasless bushings is nearly completed and the new wicket gates are scheduled to be installed the week of May 6th. As previously reported, the refurbishment work on Unit 11 stator was delayed due to a concern regarding the stator coil insulating material, potential "moisture content". The stator vendor, Andritz, addressed this issue by sending all of the coils (approximately 400 coils) to their facility located in Lachine, Quebec to be "dried out" via a baking process. The coils returned to the site and the installation process commenced on April 29th. A small portion of the coils are not meeting the electrical test criteria prior to installation and will not be used. A total of 378 coils are required. The installation progress has been very aggressive, they installed 150 coils in 5 days, and Andritz is working two daily shifts, six days a week in order to recover the time. A schedule recovery plan for this delay and the re-assembly sequence is presently being evaluated in order to maintain the return to service date of August 16, 2013. The LPGP LEM program is scheduled to be completed in 2020.

RMNPP Unit 13 Standardization

The outage for the standardization work commenced on September 14th, 2012. The unit re-assembly is proceeding and the return to service date is July 19, 2013 as scheduled. Voith completed the assembly of the new stator in the Assembly Bay as scheduled and testing commenced on April 30th.

Technical Compliance – NERC Reliability Standards

In April, Technical Compliance continued to oversee compliance enforcement actions related to several of the NERC Reliability Standards that are applicable to NYPA's NERC registrations. There are currently active enforcement actions for eight (8) self-reports of possible violations of the standards. One of these was submitted to the Northeast Power Coordination Council (NPCC) in 2011, one in 2012, and four (4) in January and two (2) in February 2013. In April, NYPA reached favorable settlement agreements with NPCC for the 2011 and 2012 self-reports with final closure to follow in a few months. For the January and February 2013 self-reports, mitigation plan documents have been submitted to NPCC and the mitigation activities are in progress.

The Federal Energy Regulatory Commission (FERC) approved the new Bulk Electric System (BES) definition in an order dated December 20, 2012 and further reaffirmed its order on April 18, 2013. The new definition will require transmission assets above 100 kV to be subject to the NERC Reliability Standards. In April, NYPA staff continued work to identify any compliance gaps for 40 newly identified BES elements under NYPA's current NERC registrations. In addition, NYPA met with National Grid to discuss Transmission Operator (TOP) and Transmission Planning (TP) responsibilities for NYPA newly identified BES assets located within National Grid's substations. Follow-up bi-lateral meetings with National Grid and other Transmission Owners are planned for May. NYPA continues to participate in meetings with the NYISO and the other NY Transmission Owners to assess both Transmission Operator (TOP) and Transmission Planning (TP) functional registration and compliance management impacts and actions pursuant to the new BES definition.

FERC issued a Notice of Proposed Rule (NOPR) regarding Critical Infrastructure Protection (CIP) Version 5 standards on April 18, 2013. There is a 60 day review period with industry comments due in June 2013. Based on the NOPR, Version 4 of the CIP standards will not be enforced. Version 3 will be replaced with Version 5, which will become effective July 1, 2015. The pending approval and adoption of Version 5 of the Critical Infrastructure Protection (CIP) standards will have substantive impacts on NYPA's CIP compliance program. Staff is in the process of performing classification assessment of those assets that will be affected by the revised standards to determine the scope and costs of the implementation plan that will ensure NYPA's compliance with the revised standards. Estimates of expenditures required for implementation of Version 5 are being developed for inclusion in the Operations budget plans for 2014-2015. The initial estimated expenditure for 2014-2015 is approximately \$10 million, with the majority of the expenditure being for additional physical security controls, including second-level physical access authentication on Control Centers and recording camera equipment.

Energy Resource Management

NYISO Markets

In April, Energy Resource Management (ERM) bid 2.1 million MWh of NYPA generation into the NYISO markets, netting \$37.14 million in power supplier payments to the Authority. Year-to-date net power supplier payments are \$198.81 million.

Fuel Planning & Operations

In April, NYPA's Fuels Group transacted \$26.5 million in natural gas and oil purchases, compared with \$9.5 million in April 2012. Year-to-date natural gas and oil purchases are \$129.9 million, compared with \$63.6 million at this point in 2012. The total \$66.3 million increase is mainly due to the higher cost of fuel and fuel consumption at the Astoria Energy II Plant (\$27.8million), Small Clean Power Plants (\$9.2 million), Richard M. Flynn Power Plant (\$4.1 million), and the 500-MW Combined Cycle Plant (\$25.2 million).

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 **Regional Greenhouse Gas Initiative (RGGI)** – A cooperative effort by Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. These nine 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 nine participating states. Regulated power plants can use a CO₂ allowance issued by any of the nine participating states to demonstrate compliance with the state program governing their facility. Taken together, the nine 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. New Jersey was a tenth state within the RGGI program but New Jersey's governor pulled the state out of the program in 2011.