

123 Main Street
White Plains, NY 10601-3170
914.681.6675
Edward.Welz@nypa.gov



Edward Welz
Chief Operating Officer

TO: NYPA BOARD OF TRUSTEES
FROM: EDWARD WELZ, CHIEF OPERATING OFFICER
DATE: JANUARY 10, 2014
SUBJECT: MONTHLY REPORT FOR THE BOARD OF TRUSTEES

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

Operations

Plant Performance

Systemwide net generation¹ was 2,261,387 megawatt-hours² (MWh) for December which is above the projected net generation of 2,043,960 MWh for the month. For the year, net generation was 24,891,557 MWh which is above the projected target of 23,220,635 MWh.

The fleet availability factor³ was 87.42 percent in December and 87.63 percent for the year. Generation market readiness factor⁴ was 99.75 percent in December, which is better than the monthly target of 99.40 percent. Year-to-date generation market readiness factor was at 99.65 percent, which is above the annual target of 99.40%.

There were no significant forced outages⁵ in December.

Generation net revenue in December was \$21.8 million with a loss of revenue of \$0.05 million. For the year, net revenue was \$323.4 million while revenue loss remains at \$1.72 million.

Niagara River flows in December were slightly above the historical average and are expected to be near normal levels for the next two years. St. Lawrence River flows during December were at forecast level. River flows are expected to be near historical levels at the beginning of 2014, and then fall below average for the rest of the year.

Transmission Performance

Transmission reliability⁶ in December was 98.49 percent, which was above the target of 97.53 percent. The 2013 transmission reliability is 96.14 percent, above the target of 96.08 percent.

There were no significant unplanned transmission events⁷ in December to report.

Safety

The NYPA DART (Days Away, Restricted or Transferred) Rate for December was 1.60 compared to the target of 0.78. For the year, the DART Rate is 0.61.

The Operations DART Rate for December is 2.43 compared to the target of 1.08. For the year, the DART Rate is 0.79.

There were two lost time incidents in December that met the DART criteria. For the year, there have been 11 injuries that resulted in lost time and met the DART criteria.

Environmental

There were two reportable incidents in December:

1. At Vischer Ferry, a small oil leak was discovered from an unknown source when Unit 2 was shutdown. About 5 gallons of oil was released inside the unit.
2. At Niagara, 3 gallons of diesel fuel was released when a pipe was clipped during excavation at the fuel tanks.

For the year, there have been thirty-one (31) incidents. The annual target is 32 incidents.

Relicensing – Niagara Power Project

Design work for the Strawberry Island HIP continues. Foundation work for a new stairway at Art Park has been substantially completed and is now shutdown for the winter.

Support continues to be provided for the Maid of the Mist project which is progressing very well. Planning and coordination is being provided to minimize the disturbance and interruption of use of NYPA recreational facilities that are being affected by this undertaking.

Relicensing – St. Lawrence-FDR Power Project

Construction of this season's Adjoining Landowner Shoreline Stabilization projects will begin shortly. Experience has shown that this work is best done with frozen ground and low water levels.

Relicensing – Blenheim-Gilboa Project

Preparation of the preliminary licensing documents is complete and they have been distributed for executive review and approval. The formal FERC Relicensing process will commence in the first quarter of 2014. At this time, no significant regulatory issues that would impact relicensing have been identified.

Life Extension and Modernization Programs

Transmission LEM

T-LEM is a multiyear program that will upgrade the Authority's existing transmission system to maintain availability, increase reliability, and ensure regulatory compliance. The Program encompasses Authority transmission assets in the Central, Northern, and Western Regions. The Program is estimated to cost \$726 million and is comprised of several projects:

- St. Lawrence Breaker & Relay Replacement:
 - STL Breaker Installation: RFQ issued with bids due January 7, 2014.
 - STL Breaker Procurement: Contract issued to HVB for procurement of circuit breakers.
 - STL Station Service Upgrade Procurement: Procurement is on hold pending completion of assessment to determine replacement strategy.
 - Massena Substation Relay Replacement: Equipment is on order. Outages scheduled for February – March 2014.
 - 100MVAR Capacitor Banks: Award is being processed. CH2M is working on the final design package.
- CEC Autotransformer/Reactor Refurbishment:
 - ABB has completed the first reactor refurbishment (#1A).
- Massena Substation Reactor Refurbishment:
 - ABB has ordered long-lead materials to begin the first reactor refurbishment (#1A) in 2014.
- ADK Substation Spare Autotransformer Procurement:
 - The proposals have expired. Rebidding is pending resolution of MA1&2 upgrade as to whether the substation will remain at 230kV or be upgraded to 345kV.
- NIA, BG & CEC Relay Replacements:
 - The project team continues to design, procure equipment and install relays.
- Massena Substation Autotransformer Replacement:
 - The spare auto-transformer has arrived in the US. The vendor has encountered transportation issues due to lack of a rail car in order to move the equipment to Massena. A revised schedule is being developed by the vendor.
 - Remaining auto-transformers are scheduled for delivery and installation in 2014.

- Tower Modeling:
 - Tower modeling of the weathering steel structures and grillage was completed.
- Tower Painting :
 - Tower painting proposals were received and are being evaluated for work at STL and NATL starting in 2014; work has been deferred to 2015.
- NIA, STL, CEC & BG Switchyard LEM & STL Substation LEM:
 - The project team has assessed switchyard and substation equipment and determined the priority of equipment replacements.
 - Project Plans have been issued for review.
- PV-20 Submarine Cable Replacement:
 - Preliminary engineering activities are ongoing by CHA in collaboration with VELCO.

LPGP LEM

The spare GSU was delivered and swapped with the first new GSU in order to gain operation time under the warranty and was placed in service date on December 16, 2013. The second turbine assembly was completed and is scheduled to arrive on site in mid-January 2014 as planned. The assembly of the third and fourth turbines commenced in Hitachi's facility located in Japan. The new turbine blade design, "LBR3", will be incorporated into the fifth runner as previously reported; the new blade "mold castings" are presently being fabricated and the band and crown have been poured.

The second unit outage, Unit 5, commenced on October 15, 2013 as scheduled and the refurbishment work is well underway including the additional repairs to the stay ring and vanes and the installation of a custom turbine liner wall transitional stainless steel section, this was unexpected. Hitachi and their sub-contractor, Gracon, work crews are working multiple shifts, six days a week, in order to try and recover the schedule. The return to service date is May 23, 2014 which is one month shorter than the first unit. The LPGP LEM program is scheduled to be completed in 2020.

Technical Compliance – NERC Reliability Standards

- Enforcement Actions – Northeast Power Coordinating Council (NPCC):
 - Eleven (11) enforcement actions, related to various requirements.
 - The mitigation plans for the open enforcement actions were completed and are being reviewed by the NPCC enforcement staff.
- Internal Investigation of Possible Violations:
 - In December, one new possible violation was identified for investigation and one (1) was closed.
 - Three (3) investigations, relating to various requirements, are currently in progress.

- Other Compliance Activities:
 - ***Self-Certifications:*** There were no self-certifications of compliance due for standards applicable to NYPA in December.
 - ***Critical Infrastructure Protection (CIP) Standards - Version 5:*** On November 21, 2013 FERC approved the CIP Version 5 reliability standards and nineteen new or revised definitions related to the new standards. FERC's draft final rule also approved the implementation plan. NYPA must demonstrate compliance to the revised standards by April 1, 2016. Staff continues to perform a classification assessment of those assets that will be affected by the revised standards to confirm the scope and costs of the implementation plan that will ensure NYPA's compliance with the revised standards. Expenditure estimates for implementation of CIP version 5 have been included in the Operations budget plan for 2014-2016.
 - ***Compliance Management Agreements with Other Utilities:*** NYPA and Con Edison executed Memoranda of Understanding for management of compliance accountabilities and task responsibilities for the Transmission Owner reliability standards applicable to substations that NYPA owns and that Con Edison maintains and operates for NYPA; the Sprainbrook and Astoria Annex Substations.
 - ***NERC Reliability Assurance Initiative (RAI):*** NYPA, along with other generation and transmission companies in North America, including Large Public Power Council (LPPC) and American Public Power Association (APPA) members, has been actively supporting the North American Electric Reliability Corporation (NERC) and NPCC in moving this important program forward. NYPA continued to participate in two NPCC pilot programs to test new compliance monitoring and enforcement tools; one is focusing on methods for assessing a company's internal controls for managing compliance and one is focusing on new tools for processing minimal risk violations of the standards. These pilot programs are being conducted in several regions across the country to establish the basis for a more risk-based, continent-wide compliance monitoring process. Furthermore, at the request of NERC, NYPA staff has or is participating in three (3) Industry Focus Groups related this initiative.

Energy Resource Management

NYISO Markets

In December, Energy Resource Management (ERM) bid 2.44 million MWh of NYPA generation into the NYISO markets, netting \$62.7 million in power supplier payments to the Authority. Year-to-date net power supplier payments are \$586.8 million.

Fuel Planning & Operations

In December, NYPA's Fuels Group transacted \$31.8 million in natural gas and oil purchases, compared with \$26.5 million in December 2012. Year-to-date natural gas and oil purchases are \$324.3 million, compared with \$227.8 million at this point in 2012. The total \$96.5 million increase is mainly due to the higher cost of fuel and/or fuel consumption at the Astoria Energy II Plant (\$40.9 million), Small Clean Power Plants (\$13.2 million), Richard M. Flynn Power Plant (\$3.6 million), and the 500-MW Combined Cycle Plant (\$38.8 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 **Significant Unplanned Generation Events** – Those events (forced or emergency outages of individual generator units) of duration greater than 72 hours, or have a total repair cost of greater than \$75,000, or result 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** – Those 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.