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Chief Operating Officer

TO: NYPA BOARD OF TRUSTEES  
FROM: GIL C. QUINIONES, CHIEF OPERATING OFFICER  
DATE: JUNE 28, 2011  
SUBJECT: MONTHLY REPORT FOR THE BOARD OF TRUSTEES

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This report covers the performance of the Operations group in May. This month was highlighted by the performance of NYPA's generating facilities. There were no unscheduled outages, no missed generation revenues, and net generation exceeded expectations. Transmission reliability, despite two forced outages in May, continues to exceed year-to-date expectations.

### Power Supply

#### *Plant Performance*

Systemwide net generation<sup>1</sup> was 2,282,721 megawatt-hours<sup>2</sup> (MWh) in May, compared to projected net generation of 2,022,905 MWh. Year-to-date net generation is 10,378,305 MWh, compared to the net generation target of 10,133,429 MWh.

The fleet availability factor<sup>3</sup> was 93.4 percent in May and is 95.7 percent for the year. Generation market readiness factor<sup>4</sup> was 100 percent, 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 events<sup>5</sup> in May.

Generation revenue in May was \$152.1 million, with no revenue lost from unscheduled outages. Year-to-date lost opportunity cost remains at \$1.28 million, about 0.17 percent of year-to-date generation revenue of \$729.1 million.

River flows at the Niagara project were above forecast in May and are now forecast to be normal in 2011 and above average in the beginning of 2012. At the St. Lawrence-FDR project, flows were above forecast and are expected to be above average through 2011 before returning to historical average in 2012.

### *Transmission Performance*

Transmission reliability<sup>6</sup> in May was 99.61 percent, which was below the target of 99.66 percent. Two forced outages – one of the Marcy Capacitor Bank<sup>7</sup> #2 and one of the Flexible Alternating Current Transmission Systems (FACTS)<sup>8</sup> device – affected the measure. Year-to-date transmission reliability is 99.00 percent, above the target of 98.16 percent.

There were no significant unplanned transmission events<sup>9</sup> in May. Overall, in 2011 there have been 111 hours of emergency outages<sup>10</sup> affecting transmission reliability, compared to a projected year-to-date target of 444 hours, and no transmission line forced outage<sup>11</sup> hours, compared to a projected year-to-date target of 770 hours.

### *Life Extension and Modernization Program*

Work on Unit 24 at the St. Lawrence-FDR Power Project, the 14<sup>th</sup> of the 16 units, continues as part of the project's Life Extension and Modernization<sup>12</sup> (LEM) program. At the time of this writing, the return to service date was scheduled for June 23, 2011, with the outage for the next unit to follow on the next day. More information will be available in the next COO Report. The 2013 scheduled completion date for the LEM project remains unchanged.

### *Environmental*

There were seven reportable events in May.

Three events took place within the Southeast New York region. At the Kent Gas Turbine facility in Brooklyn, a failed turbine lube oil line resulted in two separate releases of turbine oil, each approximately 80 gallons. Both releases were contained inside the unit. At the 500-MW Combined Cycle Plant, a failed compression fitting on an air conditioning unit resulted in the release of 50 gallons of compressor oil.

NYP&A reported three events at the Niagara Power Project: a leak of approximately three gallons of oil from an electrical transformer; a violation of a State Pollution Discharge Elimination System (SPDES)<sup>13</sup> permit for suspended solids based on sampling at one of the plant's outfalls<sup>14</sup>; and the loss of approximately 9.5 pounds of refrigerant from an air conditioning unit at the General Maintenance Building.

On the transmission system, the failure of a metering current transformer<sup>15</sup> at the Village of Fairport Municipal Light District resulted in the loss of two to three gallons of transformer oil.

Year-to-date number of recordable environmental incidents is 18; the 2011 target is 25.

### *Transmission Initiative*

NYPA continues 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. Since June 2010, PA Consulting has conducted a series of economic analyses for the project, including a comparison of the load-weighted zonal electricity prices, production costs, generators' costs, and emissions under the Base Case and the Transmission Initiative Case. In addition, PA Consulting analyzed several scenarios: one that includes the transmission line between New York City and New Jersey proposed by Hudson Transmission Partners, one that assumes high natural gas prices and one that assumes low prices, and one with 400 MW of offshore wind. The results of these analyses indicate that there is a net benefit in statewide production costs and a reduction in emissions with the construction of the Transmission Initiative. National Grid, NYPA and PA Consulting continue working with Con Edison and LIPA to address their concerns about assumptions in the economic analyses.

### *Technical Compliance – NERC Reliability Standards*

In May, NYPA Compliance Evidence Managers approved the evidence that will be submitted to the Northeast Power Coordinating Council (NPCC)<sup>16</sup> as part of NYPA's two scheduled audits of North American Electric Reliability Corporation<sup>17</sup> (NERC) Mandatory Reliability Standards. As previously reported, NYPA will be audited for its compliance with Reliability Standards for the Bulk Electric System pursuant to Federal Energy Regulatory Commission<sup>18</sup> (FERC) Order No. 693 in June, and in July it will be audited for Critical Infrastructure Protection<sup>19</sup> (CIP) standards, pursuant to FERC Order No. 704.

NYPA submitted comments to NERC on the draft revised definition of the Bulk Electric System (BES), issued in April pursuant to FERC Order No. 743. In June, NERC's BES Definition Standard Drafting Team (which includes one representative from NYPA) will consider the industry's comments on the draft definition. NYPA's comments were shared with NPCC staff and Large Public Power Council (LPPC)<sup>20</sup> members.

NYPA Technical Compliance staff continues to work with the New York Independent System Operator<sup>21</sup> (NYISO) and the New York Transmission Owners to discuss and develop an action plan for addressing the statewide impacts of the implementation of the new BES definition. The team met on May 24 at the NYISO and completed a review of the Transmission Operator (TOP) compliance requirements that will apply to assets that will be newly designated as part of the BES. At the meeting, the team agreed to estimate resource impacts for three different TOP compliance management models and select the most cost-effective approach for New York State. Also, the NYISO plans to initiate discussions with the New York Transmission Owners on Transmission Planning registration impacts. The next meeting of the team will be in late June and will include representatives from NPCC for the purpose of discussing NPCC's views on the proposed TOP compliance management models.

NYPA has a responsibility to implement its assessment plan developed in response to NERC's Alert Recommendation to Industry regarding overhead transmission line ground clearances pursuant to the NERC Facility Ratings Standards. NYPA must report progress on the implementation of its plan every six months beginning on July 15, 2011. NYPA participated in a May 12 teleconference of the technical staffs of the New York Transmission Owners to discuss the methods being used to assess potential clearance violations and the management of any mitigation actions. A second meeting of the New York Transmission Owners' technical staffs was planned for late June.

## Energy Resource Management

### *NYISO Markets*

In May, ERM bid over 2.2 million MWh of NYPA's generation into the NYISO markets, netting \$37.5 million in power supplier payments to the Authority. Year-to-date net power supplier payments are \$171.5 million.

### *Fuel Planning & Operations*

In May, NYPA's Fuels Group transacted \$14 million in natural gas and oil purchases, compared with \$12.2 million in May 2010. Year-to-date natural gas and oil purchases are \$98.6 million, compared with \$100.1 million at this point in 2010. The total year-to-date \$1.5 million reduction is mainly attributed to cessation of operations at the Poletti Power Project (-\$12.6 million, the last day of operations was January 31, 2010), which was offset by increased fuel cost at the 500-MW Combined Cycle Plant (+\$2.5 million) and increased generation at the Small Clean Power Plants (+\$7.0 million) and the Richard M. Flynn Power Plant (+\$1.6 million).

## Office of the Chief Operating Officer

### *Large Public Power Council Quarterly Meeting*

In May, the LPPC held its quarterly meeting in Washington D.C. LPPC Task Force leaders briefed member representative executives on their activities covering legislative, regulatory, and policy developments that will affect public power, as well as the outlook for developing regulations that address utility operational issues ranging from air emissions to cyber security. Some highlights included improved NERC balloting participation by the LPPC members, and action on proposed rulemakings by FERC and the U.S. Environmental Protection Agency. In addition, LPPC invited several industry and regulatory leaders to give informational briefings to member executive representatives, and facilitated meetings between executives and FERC commissioners. The next LPPC Quarterly Meeting will be held in Napa, CA, in September.

## GLOSSARY

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<sup>1</sup> **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.

<sup>2</sup> **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.

<sup>3</sup> **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).

<sup>4</sup> **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.

<sup>5</sup> **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.

<sup>6</sup> **Transmission Reliability** – A measurement of the impact of forced and scheduled outages on the statewide system's ability to transmit power.

<sup>7</sup> **Capacitor bank**—A collection of individual capacitor units, which can store an electrical charge and are used to support system voltage.

<sup>8</sup> **Flexible Alternating Current Transmission Systems (FACTS)** –Sophisticated devices for controlling voltage and power flows on transmission lines to increase the capability of an existing transmission system. In a pioneering effort, NYPA completed installation of the \$54 million convertible static compensator in 2004 at the Clark Energy Center's Marcy Substation as the most advanced of a series of FACTS technologies. The project, which also included the addition of conventional equipment at other substations, boosted the capability of the New York State system by nearly 200 megawatts without the need to build new lines. NYPA's convertible static compensator was the first transmission control device in the world to permit the instantaneous transfer of power between two lines in the same substation.

<sup>9</sup> **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.

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<sup>10</sup> **Emergency outage** – An outage that requires immediate removal of a unit from service, under an operator’s control. This outage is considered Unplanned and Unscheduled.

<sup>11</sup> **Forced outage**– An outage that requires immediate removal of a unit from service, automatically. This outage is considered Unplanned and Unscheduled. For Transmission Line Forced Outages, the outage is measured as hours that occur, except for those caused by severe weather events, on all NYPA-owned transmission lines where the cause is assigned to NYPA equipment or personnel.

<sup>12</sup> **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.

<sup>13</sup> **State Pollution Discharge Elimination System (SPDES) Permit** – A permit required by the New York State Department of Environmental Conservation to regulate the point source discharge of pollutants contained in process water and storm water to surface water and ground water in New York State.

<sup>14</sup> **Outfall** – The discharge point of a waste stream into a body of water; alternatively it may be the outlet of a river, drain or sewer where it discharges into the sea, a lake or the like.

<sup>15</sup> **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 building where one can measure a scaled down current.

<sup>16</sup> **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).

<sup>17</sup> **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.)

<sup>18</sup> **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.

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<sup>19</sup> **Critical Infrastructure Protection (CIP)** – The Critical Infrastructure Protection (CIP) program coordinates all of the North American Electric Reliability Corporation’s (NERC) efforts to improve physical and cyber security for the bulk power system of North America, as it relates to reliability. These efforts include standards development, compliance enforcement, assessments of risk and preparedness, disseminating critical information via alerts to industry, and raising awareness of key issues.

<sup>20</sup> **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.

<sup>21</sup> **New York Independent System Operator** – A not-for-profit organization that operates New York State’s transmission system, administers the state’s wholesale electricity markets and engages in planning to ensure the future reliability of the statewide power system.