

# 2012 Annual Report

New York Independent System Operator

*Broader Horizons & Sharper Focus*



## The NYISO Mission

The mission of the New York Independent System Operator, in collaboration with its stakeholders, is to serve the public good and provide benefit to consumers by:

- *Maintaining and enhancing regional reliability*
- *Operating open, fair and competitive wholesale electricity markets*
- *Planning the power system for the future*
- *Providing factual information to policy makers, stakeholders and investors in the power system*

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## MESSAGE

*From The Board Chair And President/CEO*

As we look back on 2012, the perspective provides a view of significant achievements during a time of change and challenges.

Noteworthy among the year's key developments was the sustained reliability of the bulk electric system in the face of significant weather-related challenges. Landmark low wholesale electric energy prices were recorded and we made notable progress on initiatives to expand regional collaboration in grid operations, market design, and system planning.



**Robert A. Hiney**



**Stephen G. Whitley**

New York's bulk electric grid withstood the largest storm to hit the Northeast in recorded history. The impacts of Superstorm Sandy, which will be felt by numerous New Yorkers for many years to come, included power outages affecting more than 2 million utility customers in New York State. With intense preparation in concert with transmission owners, grid operators, and government officials, uninterrupted operation of the bulk power system was maintained throughout the storm and the subsequent recovery efforts.

Increased power demands from summer heat waves in 2012 were successfully addressed, calling into action our peak-shaving, demand response programs on a record number of days. We deployed the programs on six days, including hot weather that began over Memorial Day weekend and several other periods throughout the summer. As our demand response programs evolve, we are working to enhance their rigor to be sure that they continue to deliver as expected.

The average wholesale electric energy price in New York declined for the third straight year in 2012, to its lowest level in the 12-year history of our state's competitive marketplace for electricity. While the decline of wholesale electricity prices relates to the expanded supply and reduced cost of natural gas, it also reflects the effects of well-functioning markets that send appropriate price signals to encourage the development and operation of more efficient, less costly generation.

Complementing New York's environmental standards and public policy goals, the NYISO markets also help to cultivate cleaner generation, renewable resources, and innovations such as demand response and energy storage. The emission rates of power plants in New York State dropped by double digits in 2012, continuing an encouraging trend.

The NYISO's focus on customer concerns was enhanced in 2012 as our Consumer Impact Analysis process provided new, detailed assessments of major proposed changes in market design.



In 2012, our continued commitment to excellence in grid operations and market performance included progress on our Smart Grid Investment Grant project, which will enhance operational control and improve the efficiency of the state's high-voltage transmission system. Federal and state energy officials joined the NYISO and New York Transmission Owners in an October event in New York City to showcase the project.

The smart grid project is being completed concurrently with our Infrastructure Master Plan, which progressed in 2012 with the completion of a new data center and continuing construction of our new, state-of-the-art control center. These advancements will benefit consumers significantly, providing us with the systems necessary to accommodate expanding functions such as wind power integration, electric-gas coordination, and increased coordination with neighboring grid operators.

Our Broader Regional Market initiative, which aims to maximize power resources by mending seams between regional electricity markets and achieve savings for consumers, further advanced in 2012. With the active cooperation of neighboring grid operators and the approval of regulators, we are becoming a model for cross-border collaboration in the electric system.

The NYISO also continues to play a leadership role in the pioneering planning initiative, the Eastern Interconnection Planning Collaborative (EIPC). Completing key components of its multi-phased study efforts, EIPC submitted its analyses of several stakeholder-selected future energy scenarios to the U.S. Department of Energy in December 2012.

Collaboration across traditional boundaries is a key element of our efforts to address the power system's growing reliance on natural gas. In 2012, we created a new Electric-Gas Coordination Working Group, bringing together representatives of the natural gas industry and the electric power system in order to focus on emerging operational, market, and planning issues.

As we broaden our collaborative endeavors, and refine our concentration on core responsibilities, we are increasingly called upon to share our expertise with a diverse array of policy makers and opinion leaders. We regularly provide technical assistance and objective analysis to regulatory proceedings, legislative hearings, and industry conferences.

Our shared governance system, created at the NYISO's inception, serves as the foundation of our commitment to collaboration and remains vital to the NYISO's ongoing success. Working with our Market Participants and stakeholders, we embrace the value of different points of view in the process of refining the operation of the bulk power grid, the performance of competitive wholesale electricity markets, the effectiveness of comprehensive electric system planning, and the development of innovative technology.

The NYISO's achievements in 2012 have strengthened our resolve and enhanced our ability to address the diverse challenges facing the electric system. We remain dedicated to our role in the electric system, which helps to energize the economy and enhance the quality of life in the Empire State.

*“Although Superstorm Sandy has been called the worst natural disaster in New York State, it could have been worse. Thank the people who oversee the state’s electrical grid ... at the New York State Independent System Operator’s Control Center.”*

Times-Union (Albany, NY) Business Blog, February 10, 2013

## 2012 Year in Review

### Reliability

#### Superstorm Sandy

The devastating effects of Superstorm Sandy included extensive, extended power outages in the New York metropolitan region and prompted significant scrutiny of electric utilities and an increased focus on the resilience of the power grid.

In preparation for the storm, when weather forecasts indicated that a significant weather event was tracking to the Northeast, the NYISO called on Transmission Owners to cancel all scheduled transmission line maintenance, recalled generators from planned maintenance outages, and scheduled additional units to operate for reliability. Near-continuous conference calls with neighboring grid operators and with New York Transmission Owners served to coordinate preparations.

The storm made landfall in New York on October 29, 2012. It produced power outages affecting more than 2 million utility customers in New York State. More than 900,000 customers were without power

on Long Island and over 750,000 customers were without power in the Con Edison service territory on October 30. Restoration of service required labor-intensive work by local utilities and power authorities on the local power distribution facilities, which continued through mid-November.

The effect of the outages included New York’s second lowest statewide load on record – 9,771 megawatts. That near-record low – nearly 3,000 megawatts lower than load at the same time the prior week – occurred during the 4 a.m. hour of October 30. By that afternoon, the statewide load was running about 5,200 megawatts below the levels of the prior week.

Over 3,000 megawatts of generation capacity were off-line in New York City and more than 2,000 megawatts were unavailable on Long Island. Some generation was unable to respond due to flooding, while other units were electrically isolated by reduced transmission capability.

The loss of system loads balanced

the loss of transmission facilities during the storm, and the NYISO maintained uninterrupted operation of the bulk power system throughout the storm and recovery.

In the wake of Superstorm Sandy, New York State initiated special commission investigations and regulatory reviews to address preparation, response, and recovery issues. Measures were proposed to prevent or mitigate flood damage to electric system infrastructure and install state-of-the-art equipment to allow real-time monitoring of lines without manual inspection. Changes in state law were enacted to expand the New York State Public Service Commission’s powers over combined gas-electric utilities, to penalize utility violations and revoke or modify a utility’s certificate to operate in New York State. The new law also increased PSC audit and oversight authority and added new emergency preparedness requirements for utilities.

#### High Heat, Cool Response

While Superstorm Sandy was the most significant weather event to

impact the electric system in 2012, several stretches of summer heat created increased power demands that required special attention. The 2012 summer peak of 32,439 megawatts was below the all-time record, but the season was marked by successive heat waves that prompted deployment of demand response programs on a record six days.

Activation of demand response programs enabled significant peak load megawatt savings on high-load days in May, June, and July. At the height of a heat wave on June 21, when forecasts anticipated a peak demand of 33,700 megawatts, these programs helped to reduce demand by more than 1,400 megawatts.

**Superstorm Sandy -- the largest storm to hit the Northeast in recorded history -- produced significant power outages that drove New York electric load the lowest statewide level since the August 2003 blackout in the Northeast.**

### *Electric-Gas Coordination*

Natural gas supplies have increased significantly in recent years with the tapping of so-called unconventional sources, such as shale deposits. As supply has grown, natural gas prices have declined and it has become the fuel of choice across the country for new and proposed electric generation. Since natural gas produces fewer emissions than other fossil fuels, environmental quality goals are also supported by its expanded use for power generation.

In New York, electricity generated by natural gas more than doubled from 2004 to 2012, growing from 27,000 to 60,000 gigawatt-hours. Looking ahead, natural gas projects account for nearly 70 percent of all proposed generating capacity in the state.

The NYISO, regulators and other stakeholders are working to anticipate and address the potential impacts of increased reliance on natural gas. To this end, early in 2012 we formed a cross-industry Electric-Gas Coordination Working Group to explore the interrelationship of the two industries and facilitate communications and information sharing among participants.



*“The NYISO continues to promote sound policies and exercise efficient and judicious management of our energy markets and grid. This sends the right price signals to the market and leads to lower prices and enhanced reliability. The news that New York’s wholesale energy prices hit their lowest level in 12 years in 2012 is further evidence that competitive markets work, not only for businesses but especially for consumers.”*

Senator George Maziarz, Chairman of the New York State Senate Committee on Energy and Telecommunications

## Markets

### Record Low Prices

The NYISO’s wholesale electricity markets have been cited as a model of market design. In conjunction with our market participants, we continuously strive – 24 hours a day, 365 days a year – to sustain and enhance the excellence of our markets.

An interesting coda to Superstorm Sandy was an assessment by the U.S. Energy Information Agency, which observed in the historic storm’s aftermath, “Power markets remained relatively orderly despite the stress from the storm.”

In the NYISO markets, 2012 was a record-setting year. Wholesale electric energy prices fell to new lows, the lowest in the NYISO’s 12-year operating history. The average annual wholesale price of electric energy in 2012 was \$45.23 per megawatt-hour; eclipsing the previous low price of \$48.63 set in 2009 and marking the third straight year of decreasing prices.

The NYISO’s independent Market Monitoring Unit, Potomac Economics, produces an annual assessment of market performance. Consistent with past assessments, the 2012 State of the Market Report states, “The NYISO markets are at the forefront of market design and have been a model for market development in a number of areas.”

The Market Monitor’s report also noted, “Average electricity prices fell substantially from 2011 to 2012, decreasing 20 to 25 percent in most areas.

These decreases were consistent with the change in natural gas prices, which fell 28 to 35 percent from 2011 to 2012.”

### Broader Regional Markets

The NYISO’s Broader Regional Markets initiative made significant progress in 2012. Through these extensive, collaborative efforts, we seek to mend differences, or “seams,” in the fabric of neighboring, interconnected grids; thereby enhancing the efficiency of existing resources and reducing costs for power consumers. In addition to the NYISO, the regional initiative involves PJM Interconnection, ISO New England, Midcontinent ISO, Ontario’s Independent Electricity System Operator, and Hydro Québec.

Work done in 2012 led to the January 2013 launch of NYISO/PJM Market-to-Market Congestion Relief Coordination, which involves joint management of the transmission limits that occur near the borders of their control areas.

In 2012, the NYISO and PJM also implemented measures to enable more frequent transaction scheduling between the two systems. Reducing transaction scheduling from once every hour to once every 15 minutes lowers overall system operating costs in both regions, provides system operators with additional resource flexibility, and increases the efficiency of real-time markets. A similar enhancement of transaction scheduling was initiated between New York and Québec in 2011.



In April 2012, the NYISO and ISO New England received FERC approval for coordinated transaction scheduling that will reduce costs for consumers by improving the scheduling of wholesale electricity sales between the two regions and enabling the more efficient use of transmission lines connecting New York and New England.

### *Cleaner, Greener Grid*

The competitive marketplace for wholesale electricity has brought an array of benefits, including reductions in power plant emissions and expansion of renewable power resources.

Power plant emissions in New York State continued to decline in 2012, according to U.S. Environmental Protection Agency data. Compared to the previous year, emission rates for carbon dioxide declined by 13 percent, nitrogen oxides were down by 42 percent, and sulfur dioxide dropped by 57 percent. Since 2000, these rates have declined 37 percent, 80 percent and 94 percent, respectively.

Complementing New York's rigorous environmental standards, competition in wholesale electricity markets has helped to stimulate investments in cleaner generation and encouraged operating changes to improve the overall efficiency – and reduced emissions – the power plants serving New York. From 2000 through the end of 2012, older power plants with generating capacity totaling more than 5,000 megawatts retired or suspended operation. During that same period, New York added more than 10,000 megawatts of new, more efficient generation that uses cleaner-burning natural gas or are zero-emission, renewable resources, such as wind power.

NYISO market design and its grid operating procedures have evolved to address unique characteristics of wind power by recognizing wind as a variable energy resource and revising market rules to exempt it from undergeneration penalties that apply to conventional generation; establishing a centralized wind forecasting system; pioneering the economic dispatch of wind power, balancing reliability requirements of the power system with the use of the least costly power available.





Electricity generated by wind power in New York increased from 112 gigawatt-hours in 2004 to 3,060 gigawatt-hours in 2012.

The numbers tell the story. Electricity generated by wind power increased from 112 gigawatt-hours in 2004 to 3,060 gigawatt-hours in 2012.

The NYISO markets have also evolved to integrate grid-scale solar power. In 2012, market rules were revised to address solar power as a variable energy resource.

Commenting on the NYISO's efforts to integrate renewable resources, Jackson Morris, Director of Strategic Engagement at the Pace Energy and Climate Center, said, "As New York pursues ambitious goals to scale up renewable resources, such as wind and solar, it is essential that our market rules and grid operations keep pace with these changes. With its continued efforts to efficiently integrate wind on to the grid, the NYISO has demonstrated its ability to innovate in order to optimize the performance of our evolving electric fleet."

### **Market Vigilance**

Of critical importance to the NYISO, market participants and consumers is the integrity of the marketplace for wholesale electricity in New York State.

The independent Market Monitoring Unit, Potomac Economics, is responsible for ensuring that NYISO markets function efficiently

and appropriately. It works to protect both consumers and participants in the markets by identifying and reporting market violations, market design flaws, and market power abuses. In addition, the NYISO's Market Mitigation and Analysis Department is responsible for the implementation of Market Power Mitigation Measures and working collaboratively with the Market Monitoring Unit.

In March 2012, FERC announced approval of a settlement with the Constellation Energy Commodities Group (CCG), resulting from investigations prompted in part by NYISO monitoring and mitigation of the company's trading in the NYISO virtual market.

The settlement included a civil penalty of \$135 million and return of \$110 million in unjust profits, \$78 million of which were allocated to New York. In October 2012, FERC approved a PSC plan that included a \$48 million refund to electric energy consumers, the establishment of a \$10 million fund to support consumer advocacy, and the funding of a \$20 million program to promote advanced technologies.

### **Consumer Impact Analysis**

Over the past several years, the NYISO Board of Directors has adopted a series of consumer-related initiatives, including the establishment of the Consumer Interest Liaison, whose responsibilities include the analysis of the consumer impacts

of major proposed changes in market design.

The Consumer Impact Analysis process includes qualitative and quantitative metrics in four key areas: Reliability, Cost Impact/Market Efficiencies, Environment/New Technology, and Transparency. An analysis is conducted when a proposal meets one or more of the following criteria: net production cost impact of \$5 million or more; consumer impact from changes in energy or capacity market prices greater than \$50 million per year; incorporating new technology into New York markets for the first time; involving a new type or category of market product; or creating a mechanism for out-of-market payments for reliability.

In 2012, the Consumer Interest Liaison conducted consumer impact analyses on Frequency Regulation Compensation, Ancillary Services Mitigation, Enhanced Scarcity Pricing, New Capacity Zone, and Mixed Integer Programming.

These impact analysis topics were developed and refined through the shared governance process. In some cases, where large impacts on cost to consumers were expected, the impact analyses demonstrated cost increases would be minimal. Other impacts were more substantial and the impact analyses gave market participants an indication of what to expect.

*“The NYISO has in place both reliability and economic planning processes that forecast needs and upgrade opportunities looking out over 10 years. The Energy Highway initiative is not intended to replace these processes, but rather to supplement them.”*

New York Energy Highway Blueprint, October 2012

## Planning

The NYISO’s expanding horizons have been reflected in our system and resource planning responsibilities, which have grown both in terms of issues considered and geographic scope. Analyses take place on several fronts, including reliability and economics. Collaborative planning efforts include work done in concert with other grid operators – neighboring and interregional – and technical assistance to government and planning authorities.

We plan for the long term, looking out over the next decade or more, but we are also responsive to emerging trends or new developments.

### Reliability Planning

The foundation of NYISO planning efforts is the Comprehensive System Planning Process (CPP), a multi-stage endeavor involving a diverse set of stakeholders. The first step is the development of a Reliability Needs Assessment (RNA), a 10-year review of the bulk power system that identifies potential reliability problem areas; followed by solicitations for resources to address identified needs; and culminating in the issuance of a Comprehensive Reliability Plan (CRP) that sets forth the plans and schedules to be implemented to meet those needs.

In September 2012, the NYISO issued the 2012 RNA, covering the planning horizon 2013-2022. The assessment identified transmission security issues that could manifest as soon as 2013, and resource adequacy needs, which could occur within the ten-year horizon. Transmission security is the power system’s ability to withstand disturbances, such as short circuits or loss of a system component, without interrupting power delivery. Resource adequacy

refers to whether there will be sufficient generation, transmission and demand-side resources to meet the state’s electricity needs plus reserve requirement.

Specifically, near-term potential transmission security issues were identified in the Genesee, Central, and Hudson Valley zones; and the utilities that serve those areas will provide local transmission plans or regulated solutions to address the needs. In terms of resource adequacy, the RNA found that planned generation retirements could lead to reliability needs in the Hudson Valley and downstate regions. As part of the planning process, the NYISO solicited solutions to the needs and performed the analysis required to produce the CRP in 2013.

### Economic Planning

Another important part of our planning is the extensive economic analysis of transmission congestion on the state’s bulk power system and the potential costs and benefits of alleviating it. Called a Congestion Assessment and Resource Integration Study, or CARIS, it is developed with extensive stakeholder input.

In March 2012, the NYISO released a CARIS phase one report and hosted a related public forum in April. The study identified specific areas of the state in which the most congestion exists or is likely to exist going forward, and analyzed generic transmission, generation, and demand response solutions in those regions that could ultimately yield savings for power consumers. During the next phase of CARIS, developers propose specific transmission projects to address congestion, and the NYISO will conduct cost-benefit analyses on each submission.

### **New York Energy Highway**

The NYISO's planning efforts helped to inform the New York Energy Highway initiative launched by Governor Cuomo in his January 2012 State of the State Address. In October 2012, a task force appointed by the Governor issued the Energy Highway Blueprint, which stated, "The NYISO has in place both reliability and economic planning processes that forecast needs and upgrade opportunities looking out over 10 years. The Energy Highway initiative is not intended to replace these processes, but rather to supplement them."

The Blueprint outlines recommended actions and policies for significant investments in New York State's energy infrastructure, based on 130 responses from 85 companies and organizations to a Request for Information issued by the task force in April 2012. It calls for 3,200 megawatts of new generation and transmission capacity funded by an investment of up to \$5.7 billion in public and private funds.

### **Interregional Planning**

The NYISO's extensive work and leadership role continues with the Eastern Interconnection Planning Collaborative (EIPC), whose members include 26 system planning authorities and whose leadership includes NYISO President and CEO Stephen G. Whitley serving as chair of the Executive Committee. The geographic area represented by the Eastern Interconnection includes 39 states and two Canadian provinces, from the Rocky Mountains to the Atlantic Ocean and from Canada south to the Gulf of Mexico.

In December 2012, the EIPC presented findings to DOE on its multi-phased study efforts. The EIPC analyzed three future energy scenarios, which were developed by a diverse cross-section of stakeholders. These "energy futures" were each characterized by substantially different policy drivers – a national renewable energy standard implemented on a regional basis, an economy-wide carbon emission reduction requirement, implemented primarily via emission reductions in the electric utility sector, and a "business as usual" scenario reflecting current and expected environmental and renewable energy requirements. A key finding of the EIPC analysis is that the reliability plans of electric system planners in the Eastern Interconnection do not conflict and integrate well to meet the reliability needs of the interconnection.





*"Electricity is the lifeblood of our state's economy and the transmission grid is its circulatory system. Investments in smart grid technology enhance the efficient flow of power and promote a robust, reliable electric system that will support the Empire State's economic growth for decades to come."*

Stephen G. Whitley, President & CEO,  
New York Independent System Operator

## Technology

Technological innovation is a core strategic objective – and a passion – for the NYISO, which we pursue on behalf of our stakeholders and ultimately consumers. We have deployed communications and data management advances that have optimized the dispatch of power on the bulk electric system in ways that would have been inconceivable a generation ago. Our pioneering efforts include deploying technology to make the grid smarter and advancing innovative ways to enable demand response, integrate renewable resources, incorporate energy storage, and other initiatives.

### **Smart Grid Investment Grant Project**

The NYISO and New York Transmission Owners worked together to complete power grid upgrades that are part of a statewide \$75 million smart grid initiative, supported by \$37.8 million in federal Smart Grid Investment Grant (SGIG) funding. The NYISO's partners in the statewide smart grid initiative include: Con Edison; National Grid; Orange and Rockland; Rochester Gas & Electric; Central Hudson Gas & Electric; New York State Electric & Gas; the New York Power Authority; and the Long Island Power Authority.

The project will deploy phasor measurement units (PMUs) across the state to relay system conditions at a rate of 60 times per second—360 times faster than previously available. As a result, the PMU

network will improve grid operators' ability to more quickly detect irregularities, predict problems, and take corrective action to maintain reliability. Connecting with networks in New England, the mid-Atlantic, and the Midwest will provide grid operators with broader situational awareness of grid conditions throughout the eastern United States.

The SGIG project, scheduled for completion in 2013, also supports the deployment of new capacitor banks, which will improve the efficiency of the bulk transmission system by reducing the amount of electricity that is lost when carried over long distances.

### **New Control Center**

The smart grid project is being completed concurrently with the development of the NYISO's new state-of-the-art control center. The new facility will replace a power control center originally built in 1969 by the NYISO's predecessor, the New York Power Pool.

Housed in a 64,000-square-foot addition to the NYISO's existing administration building, the new facility will feature a significantly larger control room to accommodate expanding functions, such as wind power integration, electric-gas coordination, and the NYISO's Broader Regional Markets initiative involving expanded coordination with neighboring grid operators.



The NYISO's Infrastructure Master Plan includes upgrading the older facility to enable it to serve as a fully redundant, alternate control center, and house a new data center. In May, the final piece of equipment was moved to the newly constructed data center completing the first phase of the infrastructure plan

on time and on budget. The new data center is more energy efficient, and is expected to save \$100,000 - \$200,000 in annual cooling and operating costs.



## Authoritative Information

The NYISO is increasingly asked to contribute to energy industry and public policy discussions as a source of unbiased, objective information and analysis.

As noted earlier, the NYISO was asked to provide its expertise to the New York Energy Highway, including NYISO President and CEO Stephen G. Whitley's participation as a featured panelist in the April 2012 Energy Highway Summit.

Named by a 2009 state law as a non-voting member of the New York State Energy Planning Board, the NYISO supplied technical expertise to the development of the August 2012 *New York State Transmission and Distribution Systems Reliability Study and Report*. The document provides a broad overview of the current electric transmission and distribution system and the processes and activities that comprise the oversight of the electric system to ensure electric system reliability.

The NYISO was featured on a PBS television series, *America Revealed*, in the "Electric Nation" episode that aired in April. NYISO Chief Operating Officer, Rick Gonzales, was interviewed about the electric grid and our experience during the August 2003 Northeast Blackout. The *America Revealed* crew visited the NYISO as part of their travels around the country taking a look at the nation's electric system to "understand its intricacies, its vulnerabilities, and the remarkable ingenuity required to keep the electricity on every day of the year."

In October, the NYISO was joined by New York's Transmission Owners and officials from the U.S. DOE and PSC to highlight the benefits of the NYISO's \$75 million smart grid initiative. The event, hosted in Manhattan by Con Edison, also included top officials from National Grid; Orange and Rockland; Rochester Gas and Electric; Central Hudson Gas & Electric; New York State Electric & Gas; the New York Power Authority; and the Long Island Power Authority.





Throughout 2012, NYISO leadership and staff authored articles in major trade publications, made presentations at dozens of industry conferences, participated in several regulatory proceedings, and contributed testimony to three state legislative hearings. We also published *Power Trends 2012: State of the Grid*, the NYISO's annual review of the dynamic and diverse factors influencing the future of New York's bulk electricity grid and its wholesale electricity markets.

Our headquarters and control center continue to attract visitors from around the world who come to learn about state-of-the-art planning, competitive electricity markets, and reliable grid operations. In 2012, we hosted 113 international visitors, including representatives from 10 nations that had not previously visited the NYISO. Since 2000, nearly 1,400 individuals from 75 nations have participated in NYISO tours and briefings.

## Excellence in Execution

At the NYISO, the pursuit of excellence is a strategic goal, and a way of life. We constantly strive to do better. For example, our Finance Department's attention to the financing for our Infrastructure Master Plan resulted in a refinancing plan that will save \$4 million over the term of the borrowing. With PSC approval of our request to refinance, a new loan and interest rate swap agreement locked in a lower interest rate.

Another example, part of our ongoing efforts to provide "best in class" service to our customers, was a reorganization that resulted in a new

Stakeholder & Member services department in 2012. We conducted significant external benchmarking and review of best practices, and used the findings to restructure units into a cohesive set that will better anticipate and address customer needs. The new department addressed 9,400 customer inquiries in 2012, reducing customer inquiry response time by 37 percent, increasing customer satisfaction with responses to 96 percent, and initiating a new approach to customer satisfaction metrics.

### Multi-Year Strategy

Culminating a year-long strategic planning process that engaged stakeholders, conducted peer reviews, and assessed challenges and opportunities, the NYISO issued its 2013-2017 Strategic Plan in December. Discussing its key elements, NYISO Board Chair Robert Hiney said, "We see a growing need for interregional cooperation among markets to optimize grid operations, enhance market efficiency, implement comprehensive system planning, and integrate technological advances into the grid to help customers realize the benefits from competitive wholesale electricity markets."

The NYISO activities that support those objectives include continuing to implement Broader Regional Markets initiatives; continuing initiatives relating to electric-gas industry coordination; deploying Smart Grid technologies; and enhancing demand response programs to further benefit consumers with improved market efficiencies and reduced wholesale prices during peak demand periods.

# 2012 BOARD OF DIRECTORS

*(AS OF DECEMBER 31, 2012)*

**Robert A. Hiney, Board Chair**

*Former Executive Vice President for Power Generation of the New York Power Authority (NYPA)*

**Karen Antion**

*President of Karen Antion Consulting, LLC and former Senior IT Executive at Oracle Corporation and the Port Authority of New York and New Jersey*

**Michael B. Bemis**

*Former President of Exelon Power and President of Energy Delivery for the Exelon Corporation*

**Ave M. Bie**

*Partner in the law firm of Quarles & Brady and former Chair of the Wisconsin Public Service Commission*

**Alfred F. Boschulte**

*President of AFB Consulting, specializing in strategic planning and operating margin improvements for telecommunications firms*

**Erland E. Kailbourne**

*Chairman of the Board of Financial Institutions, Inc. and its subsidiary Five Star Bank*

**James V. Mahoney**

*President and CEO of Energy Market Solutions, Inc. and former President and CEO of DPL Inc., a regional energy and utility company*

**Thomas F. Ryan, Jr.**

*Former President and COO of the American Stock Exchange*

**Anastasia M. Song**

*Former Chief Executive Officer of the Haugland Group, LLC*

**Stephen G. Whitley**

*President and CEO – New York Independent System Operator*

## 2012 LEADERSHIP TEAM – CORPORATE OFFICERS

*(AS OF DECEMBER 31, 2012)*

Stephen G. Whitley  
President and CEO

Rick Gonzales  
Senior Vice President and Chief Operating Officer

Richard Dewey  
Senior Vice President and Chief Information Officer

Rana Mukerji  
Senior Vice President, Market Structures

Henry Chao  
Vice President, System and Resource Planning

Jennifer Chatt  
Vice President, Human Resources

Diane L. Egan  
Board Secretary and Corporate Secretary

Robert E. Fernandez  
General Counsel

Mary McGarvey  
Vice President and Chief Financial Officer

Thomas J. Rumsey  
Vice President, External Affairs

Wesley Yeomans  
Vice President, Operations



## Shared Governance

Under a unique shared governance system, the NYISO is governed jointly by an independent Board of Directors, working with Market Participants – transmission owners, generation owners, other suppliers, end-use consumers, public power, and environmental parties.

The NYISO has three standing stakeholder committees: the Management Committee, the Business Issues Committee, and the Operating Committee. Each of these committees oversees its own set of subject-matter specific working groups and subcommittees. These committees provide stakeholders with the opportunity to participate in forums where issues regarding the administration of the markets, the operation of New York's bulk electricity grid, and future system planning are discussed, debated, and voted on. In 2012, the NYISO conducted 245 meetings, involving monthly sessions of the major committees and frequent meetings of subcommittees, task forces, and working groups.

The NYISO's governing documents establish specific responsibilities for the stakeholder committees. The committees perform such responsibilities in accordance with each committee's by-laws and in coordination with work performed by NYISO management and staff.

Stakeholders perform an array of duties in the shared governance process, including:

- *preparing the NYISO's annual budget,*
- *reviewing and recommending candidates for Board of Director vacancies,*
- *developing and adopting technical guidelines for operation of the bulk electric system,*
- *developing and adopting enhancements in market design, and*
- *developing and reviewing system planning reports.*

Notably, NYISO stakeholders share responsibility with the NYISO Board in developing and approving proposed changes to the NYISO's governing documents, including its federally approved tariffs. The Management Committee must endorse any proposed change sought by the Board to the NYISO's governing documents that will be filed for FERC review under Section 205 of the Federal Power Act.

By maintaining an open, collaborative process, the various elements of the NYISO's mission and expanding roles are better understood by all who participate. This interdependent system and commitment to consensus building is an invaluable asset as the NYISO moves forward to meet future challenges.

## Committee Chairs and Vice Chairs

*(As of December 31, 2012)*

### **Management Committee**

Howard Fromer – Chair  
PSEG

Bart Franey – Vice Chair  
National Grid

### **Business Issues Committee**

Alan Ackerman – Chair  
Customized Energy Solutions

Deidre Altobell – Vice Chair  
Consolidated Edison

### **Operating Committee**

Bill Palazzo – Chair  
New York Power Authority

Scott Leuthauser – Vice Chair  
HQ US Energy Services







## MARKET PARTICIPANTS

3M Company  
 AB Energy NE Pty, Ltd.  
 ABN Energy, LLC  
 AC Energy, LLC  
 Accent Energy Midwest II LLC  
 AES Eastern Energy, LP  
 AES ES Westover LLC  
 Affordable Power, L.P.  
 AG Energy, L.P.  
 Aggressive Energy, LLC  
 Agway Energy Services, LLC  
 Albany Energy LLC  
 Aleph One, Inc.  
 Alpha Gas and Electric, LLC  
 Ambit New York, LLC  
 American Power & Gas, LLC  
 Ameristar Energy LLC  
 Amherst Utility Cooperative (AUC)  
 Amplified Power & Gas, LLC  
 AP Gas & Electric (NY), LLC dba APG&E  
 Astoria Energy II, LLC  
 Astoria Energy LLC  
 Astoria Generating Company L.P.  
 Athens Generating Company, L.P.  
 Axon Energy, LLC  
 Barclays Bank PLC  
 Barclays Services Corporation  
 Bayonne Energy Center, LLC  
 BBPC, LLC, d/b/a Great Eastern Energy  
 BJ Energy LLC  
 Black Oak Energy LLC  
 Bluco Energy, LLC  
 Blue Rock Energy, Inc.  
 Bluefin Electricity Trading II LLC  
 BNP Paribas Energy Trading GP  
 Boralex Hydro Operations Inc

Bounce Energy NY, LLC  
 BP Energy Company  
 Brookfield Energy Marketing LP  
 Brookfield Renewable Energy Marketing US LLC  
 Broome Energy Resources, LLC  
 Brown's Energy Services LLC  
 Bruce Power Inc.  
 Buy Energy Direct, LLC  
 Calpine Energy Services LP  
 Canadian Wood Products - Montreal Inc  
 Canandaigua Power Partners, LLC  
 Canastota Windpower LLC  
 Cargill Power Markets, LLC  
 Carr Street Generating Station LP  
 Castleton Power, LLC  
 CECONY-LSE  
 Censtar Energy Corp  
 Central Hudson Gas & Electric Corp.  
 Central Vermont Public Service Corp.  
 Centre Lane Trading Ltd.  
 CHI Power Marketing, Inc  
 Chief Energy Power, LLC  
 Citigroup Energy Inc.  
 Citizens Choice Energy, LLC  
 City of Niagara Falls  
 City Power & Gas, LLC  
 City Power Marketing, LLC  
 Clear Choice Energy, LLC  
 Clearview Electric, Inc.  
 Columbia Utilities Power, LLC  
 Commerce Energy, Inc. d/b/a Amigo Energy  
 Con Edison Solutions, Inc.  
 ConocoPhillips Company  
 Consolidated Edison Co. of New York, Inc.  
 Consolidated Edison Energy, Inc.  
 Consolidated Hydro New York, Inc.

## MARKET PARTICIPANTS

Constellation Energy Commodities Group, Inc.  
Constellation Energy Power Choice, Inc  
Constellation NewEnergy, Inc.  
Corporate Services Support Corp.  
County of Erie NY  
County of Niagara NY  
Covanta Niagara, LP  
CP Energy Marketing (US) Inc.  
Credit Suisse (USA), Inc.  
Credit Suisse Energy LLC  
Cummins Inc  
Cutone & Company Consultants, LLC  
DB Energy Trading LLC  
DC Energy LLC  
DC Energy New England, LLC  
DC Energy New York, LLC  
Demand Response Partners, Inc.  
Digital Energy Corp  
Direct Energy Business, LLC  
Direct Energy Marketing Inc  
Direct Energy Services, LLC  
Discount Energy LLC  
Dominion Retail, Inc.  
DTE Energy Supply, Inc.  
DTE Energy Trading Inc  
Dynamis ETF, LLC  
Dynasty Power Inc  
Dynergy Danskammer, LLC  
Dynergy Marketing and Trade, LLC (DMT)  
Dynergy Roseton, LLC  
Eagle Creek Hydro Power, LLC  
Eagle Power Authority, Inc.  
Eagle Power, LLC  
East Coast Power and Gas, LLC  
East Coast Power, LLC  
EDF Industrial Power Services (NY), LLC  
EDF Trading North America, LLC

Edison Mission Marketing & Trading, Inc.  
EDP Renewables North America LLC  
eKapital NY, LLC  
Emera Energy Services Subsidiary No. 1, LLC  
Emera Energy Services, Inc  
Emera Energy U.S. Subsidiary No. 1, Inc.  
Emera Energy U.S. Subsidiary No. 2, Inc.  
Empire Generating Co, LLC  
Empire Natural Gas Corp.  
Energetix, Inc.  
Energy Connect, Inc.  
Energy Conservation and Supply, Inc.  
Energy Cooperative of America, Inc dbaEnCoop of NY  
Energy Curtailment Specialists, Inc.  
Energy Limited Inc  
Energy Plus Holdings LLC  
Energy Services Providers, Inc dba US Gas&Electric  
Energy Spectrum Inc.  
EnergyMark, LLC  
EnerNOC, Inc.  
Enerwise Global Technologies, Inc  
Entergy Nuclear Fitzpatrick, LLC  
Entergy Nuclear IP-2 LLC  
Entergy Nuclear IP3, LLC  
Entergy Nuclear Power Marketing LLC  
Entergy Solutions LLC  
Entra Energy LLC  
Erie Boulevard Hydropower LP  
Erie Wind, LLC  
ESL Federal Credit Union  
ETC Endure Energy LLC  
Exelon Generation Company LLC  
Family Energy Inc  
FC Energy Services Company, LLC  
First Choice Energy, Inc.  
First Commodities International Inc.  
Flat Rock Windpower II LLC



Flat Rock Windpower LLC  
 Franklin Power LLC  
 Freeport Electric  
 Galaxy Energy, LLC  
 Galt Power Inc.  
 Gateway Energy Services Corporation  
 GDF Suez Energy Marketing NA, Inc  
 GDF Suez Energy Resources NA, Inc  
 GDF SUEZ Retail Energy Solutions, LLC dba Think  
 Energy  
 GenOn Energy Management, LLC  
 Glacial Energy New York, Inc.  
 Global Energy LLC  
 Great Bay Energy IV, LLC  
 Green Mountain Energy Company  
 Greenlight Energy Inc  
 GRG Energy LLC  
 Gridway Energy Corp.  
 Griffiss Utility Services Corporation  
 Hampshire Paper Co., Inc.  
 Hanissim Capital, LLC  
 Hardscrabble Wind Power LLC  
 Hess Corporation  
 Hess Small Business Services, LLC  
 HIKO Energy, LLC  
 HOP Energy, LLC  
 Howard Wind LLC  
 HQ Energy Services (US)  
 HSBC Bank USA  
 Hudson Energy Services, LLC  
 Iberdrola Renewables, Inc.  
 IDT Energy, Inc  
 Indeck Energy Svs of Silver Springs  
 Indeck-Corinth LP  
 Indeck-Olean LP  
 Indeck-Oswego LP  
 Indeck-Yerkes LP

Independence Energy Group LLC  
 Innovative Energy Systems, Inc.  
 Innoventive Power LLC  
 Integrys Energy Services of New York, Inc.  
 Integrys Energy Services, Inc.  
 International Paper Company  
 Iron Energy LLC  
 Islip Resource Recovery Agency  
 J Aron and Company  
 J. P. Morgan Ventures Energy Corporation  
 Jamestown Board of Public Utilities  
 Just Energy New York Corp  
 Kaleida Health  
 Kiwi Energy Inc  
 L&L Energy, LLC  
 Lavand & Lodge, LLC  
 Lexington Power & Light, LLC  
 Liberty Power Holdings LLC  
 Linde Energy Services, Inc.  
 Lockport Energy Assoc.  
 Long Island Power Authority  
 Louis Dreyfus Energy Services L.P.  
 Lyonsdale Biomass, LLC  
 Macquarie Energy LLC  
 Madison Windpower, LLC  
 MAG Energy Solutions Inc.  
 Major Energy Electric Services, LLC  
 Marathon Power LLC  
 Marble River, LLC  
 Massena Electric Department  
 Mercuria Energy America, Inc  
 Merrill Lynch Commodities, Inc.  
 MG Industries  
 Midwest Energy Trading East LLC  
 Mitchell Supreme Fuel Co.  
 Model City Energy LLC  
 Modern Innovative Energy, LLC

## MARKET PARTICIPANTS

Monroe County NY  
Monterey NY, LLC  
Monterey NYF, LLC  
Morgan Stanley Capital Group, Inc.  
MPower Energy LLC  
Nationwide Energy, LLC  
NetPeak Energy Group LLC  
New Wave Energy Corp  
New York Industrial Energy Buyers, LLC  
New York Municipal Power Agency  
New York Power Authority  
New York State Electric & Gas Corp.  
NextEra Energy Power Marketing, LLC  
NextEra Energy Services Massachusetts, LLC  
NextEra Energy Services New York, LLC  
Niagara Frontier Transportation Authority  
Niagara Generation, LLC  
Niagara Mohawk Power Corp.  
Niagara University  
Niagara Wind Power, LLC  
Nine Mile Point Nuclear Station, LLC  
Nissequogue Cogen Partners  
Noble Altona Windpark, LLC  
Noble Americas Energy Solutions LLC  
Noble Americas Gas & Power Corp  
Noble Bliss Windpark, LLC  
Noble Chateaugay Windpark, LLC  
Noble Clinton Windpark I, LLC  
Noble Ellenburg Windpark, LLC  
Noble Wethersfield Windpark LLC  
NOCO Electric LLC  
North American Power and Gas LLC  
North Energy Power, LLC  
Northbrook Lyons Falls, LLC  
Northbrook New York LLC  
Northern States Power Company

NorthPoint Energy Solutions Inc.  
NorthPoint Energy Solutions Inc.  
NRG Power Marketing LLC  
NuEnerGen, LLC  
NYSEG Solutions, Inc.  
Oasis Power, LLC d/b/a Oasis Energy  
Occidental Chemical Corp.  
Occidental Power Services Inc  
OCP Resources, LLC  
Ontario Power Generation Energy Trading, Inc.  
Ontario Power Generation, Inc.  
Orange & Rockland Utilities, Inc.  
ORU-LSE  
Pacific Summit Energy LLC  
Palmco Power NJ, LLC  
Palmco Power NY, LLC  
People's Power & Gas LLC  
Pepco Energy Services  
Planet Energy (New York) Corp  
Plant-E Corp.  
Plymouth Rock Energy, LLC  
Power Bidding Strategies, LLC  
Power City Partners, L.P.  
Powerex Corporation  
PP&L EnergyPlus Co. (EPLUS)  
PSEG Energy Resource & Trade, LLC  
Public Power, LLC  
Pure Energy Inc  
R.E. Ginna Nuclear Power Plant, LLC  
Rainbow Energy Marketing Corp  
RBC Energy Services LP  
Red Wolf Energy Trading, LLC  
ReEnergy Chateaugay LLC  
Reliant Energy Northeast, LLC  
Rensselaer Cogeneration LLC  
Riverbay Corporation

|  |   |
|--|---|
| <i>Robison Energy, LLC</i>                               | <i>Superior Plus Energy Services Inc</i>                  |
| <i>Rochester Gas &amp; Electric Corp.</i>                | <i>Synergy Biogas LLC</i>                                 |
| <i>Royal Bank of Canada</i>                              | <i>Syracuse Energy Corporation</i>                        |
| <i>S.J. Energy Partners, Inc.</i>                        | <i>Tarachand Enterprises, Inc.</i>                        |
| <i>Sanctorum Energy Inc.</i>                             | <i>TC Ravenswood, LLC</i>                                 |
| <i>Saracen Energy East LP</i>                            | <i>Tenaska Power Services Co.</i>                         |
| <i>Saracen Power LP</i>                                  | <i>Texas Retail Energy, LLC</i>                           |
| <i>Saranac Power Partners, L.P.</i>                      | <i>The Dayton Power and Light Company</i>                 |
| <i>SBR Energy, LLC</i>                                   | <i>Time Warner Inc.</i>                                   |
| <i>Schools &amp; Municipal Energy Cooperative (SMEC)</i> | <i>Tops Markets, Inc.</i>                                 |
| <i>Select Energy, Inc.</i>                               | <i>Trademark Merchant Energy, LLC</i>                     |
| <i>Selkirk Cogen Partners, L.P.</i>                      | <i>TransAlta Energy Marketing (U.S.) Inc.</i>             |
| <i>Seneca Energy II, LLC</i>                             | <i>TransCanada Power Marketing, Ltd.</i>                  |
| <i>Seneca Power Partners, L.P.</i>                       | <i>Triton Power Company</i>                               |
| <i>SESCO Enterprises LLC</i>                             | <i>Twin Cities Power, LLC</i>                             |
| <i>Sheldon Energy LLC</i>                                | <i>U.S. Energy Partners LLC</i>                           |
| <i>Shell Energy North America (US), L.P.</i>             | <i>UGI Energy Services, Inc</i>                           |
| <i>Siemens Industry, Inc</i>                             | <i>University of Rochester</i>                            |
| <i>Sithe Independence Power Partners L.P.</i>            | <i>Utility Expense Reduction, LLC</i>                     |
| <i>Smart One Energy, LLC</i>                             | <i>Velocity American Energy Master I, L.P.</i>            |
| <i>Sol Energy, LLC</i>                                   | <i>Village of Hilton</i>                                  |
| <i>Solios Power LLC</i>                                  | <i>Village of Rockville Centre</i>                        |
| <i>South Jersey Energy Company</i>                       | <i>Viridian Energy NY, LLC</i>                            |
| <i>South Jersey Energy ISO1, LLC</i>                     | <i>Viridity Energy, Inc.</i>                              |
| <i>Spark Energy, L.P.</i>                                | <i>Virtual Energy LLC</i>                                 |
| <i>Spartan Electricity Futures, Inc</i>                  | <i>Vitol Inc.</i>   |
| <i>SREC Generating Company, Inc</i>                      | <i>Watchtower Bible and Tract Society of New York, In</i> |
| <i>Starion Energy NY, Inc</i>                            | <i>West Oaks Energy NY/NE, LP</i>                         |
| <i>StatArb Investment LLC</i>                            | <i>Western New York Wind Corp.</i>                        |
| <i>State of New York</i>                                 | <i>Wheelabrator Hudson Falls, LLC</i>                     |
| <i>State University of New York</i>                      | <i>Wheelabrator Westchester, L.P.</i>                     |
| <i>State University of New York at Buffalo</i>           | <i>Windy Bay Power, LLC</i>                               |
| <i>Stephentown Spindle, LLC</i>                          | <i>WM Renewable Energy, LLC</i>                           |
| <i>Sterling Power Partners, L.P.</i>                     | <i>XO Energy NY, LP</i>                                   |
| <i>Stream Energy New York, LLC</i>                       | <i>Your Energy Holdings, LLC</i>                          |
| <i>SUNY Potsdam</i>                                      |   |



A close-up, black and white photograph of a calculator keypad. The focus is on the central area, showing keys with mathematical symbols: a large plus sign (+) in the center, a multiplication sign (x) to its upper right, a division sign (÷) to its lower left, and an equals sign (=) to its lower right. Other keys with numbers like 3 and 6 are visible in the background, slightly out of focus. The text "FINANCIAL STATEMENTS 2012" is overlaid in the center of the image.

# **FINANCIAL STATEMENTS 2012**

## Independent Auditors' Report

The Board of Directors  
New York Independent System Operator, Inc.:

### Report on the Financial Statements

We have audited the accompanying financial statements of New York Independent System Operator, Inc. which comprise the balance sheets as of December 31, 2012 and 2011, and the related statements of activities, and cash flows for the years then ended, and the related notes to the financial statements.

### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditors' Responsibility*

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### *Opinion*

In our opinion, the financial statements referred to above present fairly in all material respects, the financial position of New York Independent System Operator, Inc. and the results of its operations and its cash flows for the years then ended in accordance with U.S. generally accepted accounting principles.

KPMG LLP

Albany, New York  
March 15, 2013

## Statements of Financial Position

December 31, 2012 and 2011

| <b>Assets</b>                                      | <b>2012</b>    | <b>2011</b> |
|--|----------------|-------------|
| Current assets:                                    |                |             |
| Cash and cash equivalents                          | \$ 43,304,540  | 41,060,857  |
| Restricted cash                                    | 335,744,418    | 349,255,168 |
| Accounts receivable – net (note 2)                 | 6,867,609      | 5,060,630   |
| Prepaid expenses                                   | 6,059,965      | 5,371,658   |
| Regulatory assets – current portion (note 3)       | 1,999,522      | —           |
| Other current assets                               | 210,792        | 40,257      |
| Total current assets                               | 394,186,846    | 400,788,570 |
| Noncurrent assets:                                 |                |             |
| Regulatory assets (note 3)                         | 16,802,444     | 15,581,749  |
| Property and equipment – net (note 4)              | 101,710,411    | 79,701,455  |
| Other noncurrent assets (note 7)                   | 7,853,676      | 8,838,152   |
| Total noncurrent assets                            | 126,366,531    | 104,121,356 |
| Total  | \$ 520,553,377 | 504,909,926 |
| <b>Liabilities</b>                                 |                |             |
| Current liabilities:                               |                |             |
| Accounts payable and accrued expenses              | \$ 119,669,931 | 95,512,918  |
| Market participant security deposits               | 234,068,551    | 267,412,535 |
| Market participant prepayments                     | 2,148,389      | 1,298,539   |
| Working capital reserve (note 10)                  | 33,014,603     | 33,025,562  |
| Long-term debt – current portion (note 6)          | 27,674,341     | 25,116,275  |
| Deferred revenue (note 11)                         | 4,358,125      | 3,373,015   |
| Regulatory liabilities – current portion (note 12) | 1,253,357      | 2,579,060   |
| Other current liabilities (note 8)                 | 2,184,757      | 567,790     |
| Total current liabilities                          | 424,372,054    | 428,885,694 |
| Noncurrent liabilities:                            |                |             |
| Accrued pension liability (note 8)                 | 5,031,928      | 4,702,434   |
| Accrued postretirement liability (note 8)          | 5,027,984      | 4,479,953   |
| Regulatory liabilities (note 12)                   | 6,578,991      | 6,235,818   |
| Other noncurrent liabilities (notes 7 and 8)       | 18,724,947     | 11,756,697  |
| Long-term debt (note 6)                            | 60,817,473     | 48,849,330  |
| Total noncurrent liabilities                       | 96,181,323     | 76,024,232  |
| Commitments and contingencies (note 13)            |                |             |
| Total liabilities                                  | 520,553,377    | 504,909,926 |
| Unrestricted net assets                            |                |             |
| Total liabilities and net assets                   | \$ 520,553,377 | 504,909,926 |

See accompanying notes to financial statements.



## Statements of Activities

Years ended December 31, 2012 and 2011

|   | 2012               | 2011               |
|---|--------------------|--------------------|
| Revenues:   |                    |                    |
| Rate Schedule 1 tariff charge                                 | \$ 145,159,810     | 147,799,883        |
| Grant revenue (notes 14 and 15)                               | 15,554,109         | 3,861,203          |
| Planning studies revenue                                      | 2,252,893          | 2,144,776          |
| Fees and services   | 940,368            | 858,688            |
| Interest income   | 4,005              | 7,652              |
| Total revenues  | <u>163,911,185</u> | <u>154,672,202</u> |
| Operating expenses:   |                    |                    |
| Compensation and related benefits (note 8)                    | 69,904,942         | 63,852,206         |
| Professional fees and consultants                             | 20,029,274         | 24,614,700         |
| Depreciation and amortization                                 | 19,573,767         | 18,911,245         |
| Maintenance, software licenses and facility costs             | 17,243,537         | 18,451,821         |
| Federal energy regulatory commission fees                     | 11,007,320         | 11,291,541         |
| Grant expenses – New York transmission owners (note 14)       | 10,091,002         | 570,633            |
| Telecommunication expenses                                    | 4,809,169          | 4,001,117          |
| Administrative and other expenses                             | 4,273,282          | 3,221,646          |
| Interest expense  | 2,954,414          | 2,953,357          |
| Insurance expense   | 2,810,703          | 2,720,834          |
| Training, travel, and meeting expenses                        | 1,396,045          | 1,611,569          |
| Northeast power coordinating council fees                     | 240,034            | 88,234             |
| Change in fair value of interest rate swaps and caps (note 7) | <u>(422,304)</u>   | <u>2,383,299</u>   |
| Total operating expenses                                      | <u>163,911,185</u> | <u>154,672,202</u> |
| Change in unrestricted net assets                             | —                  | —                  |
| Unrestricted net assets, beginning of year                    | —                  | —                  |
| Unrestricted net assets, end of year                          | \$ <u>—</u>        | <u>—</u>           |

See accompanying notes to financial statements.

## Statements of Cash Flows

Years ended December 31, 2012 and 2011

|  | <u>2012</u>          | <u>2011</u>         |
|--|----------------------|---------------------|
| Cash flows from operating activities:  |                      |                     |
| Change in unrestricted net assets  | \$ —                 | —                   |
| Adjustments to reconcile change in unrestricted net assets to net cash provided by operating activities: |                      |                     |
| Depreciation and amortization  | 19,573,767           | 18,911,245          |
| Loss on disposition of assets  | 428,215              | —                   |
| Change in operating assets and liabilities:  |                      |                     |
| Decrease (increase) in accounts receivable and prepaid expenses  | (2,495,286 )         | 13,348,506          |
| Decrease in restricted cash  | 13,510,750           | 42,621,187          |
| Decrease (increase) in regulatory assets   | (2,791,259)          | 553,627             |
| Decrease (increase) in other assets  | 813,941              | (1,250,086)         |
| Increase in accounts payable and accrued expenses  | 22,296,109           | 62,531,914          |
| (Decrease) increase in market participant prepayments  | 849,850              | (59,458,307)        |
| Decrease in market participant security deposits   | (33,343,984)         | (49,445,595)        |
| Decrease in working capital reserve  | (10,959)             | (13,466,245)        |
| Decrease in regulatory liabilities   | (982,530)            | (862,266)           |
| Increase in deferred revenue and other liabilities   | <u>10,018,894</u>    | <u>858,809</u>      |
| Net cash provided by operating activities  | <u>27,867,508</u>    | <u>14,342,789</u>   |
| Cash flows from investing activities:  |                      |                     |
| Acquisition of property and equipment (including capitalized interest)                                   | <u>(40,150,034)</u>  | <u>(33,743,369)</u> |
| Net cash used in investing activities  | <u>(40,150,034)</u>  | <u>(33,743,369)</u> |
| Cash flows from financing activities:  |                      |                     |
| Proceeds from revolving credit facility loan   | 9,000,000            | 8,500,000           |
| Repayment of revolving credit facility loan  | (9,000,000)          | (8,500,000)         |
| Proceeds from 2007 – 2010 budget facility loan   | —                    | 7,000,000           |
| Repayment of 2007 – 2010 budget facility loan  | (16,385,714)         | (21,595,238)        |
| Proceeds from 2011 – 2013 budget facility loan   | 25,800,000           | 25,000,000          |
| Repayment of 2011 – 2013 budget facility loan  | (8,333,333)          | —                   |
| Proceeds from 2011 Infrastructure Loan   | 7,419,046            | 3,240,232           |
| Repayments of 2011 Infrastructure Loan   | (10,659,278)         | —                   |
| Proceeds from 2012 Infrastructure Loan   | 17,582,715           | —                   |
| Repayment of Mortgage and Renovations loans  | <u>(897,227)</u>     | <u>(848,734)</u>    |
| Net cash provided by financing activities  | <u>14,526,209</u>    | <u>12,796,260</u>   |
| Net increase (decrease) in cash and cash equivalents   | 2,243,683            | (6,604,320)         |
| Cash and cash equivalents – beginning of year  | <u>41,060,857</u>    | <u>47,665,177</u>   |
| Cash and cash equivalents – end of year  | \$ <u>43,304,540</u> | <u>41,060,857</u>   |
| Supplemental disclosure of cash flow:  |                      |                     |
| Information – cash paid during the year for interest, net of capitalized interest                        | \$ 2,917,938         | 2,978,396           |
| Noncash operating activity:  |                      |                     |
| Change in pension and postretirement liabilities   | 428,958              | 5,138,950           |
| Noncash investing activities:  |                      |                     |
| Property and equipment additions which were accrued but not paid   | \$ 5,396,646         | 3,535,742           |
| Property and equipment additions previously accrued which were paid                                      | 3,535,742            | 4,140,689           |

See accompanying notes to financial statements.

## (1) Summary of Significant Accounting Policies

### (a) Business Description

The New York Independent System Operator, Inc. (NYISO) was formed in April 1997 and commenced operations on December 1, 1999. NYISO is incorporated in the state of New York as a not-for-profit organization. NYISO assumed the responsibilities of its predecessor, the New York Power Pool (NYPP), which had coordinated the reliability of New York State's electric power grid for more than 30 years. Formed as a result of Federal Energy Regulatory Commission (FERC) policies, NYISO monitors a network of 11,000 circuit miles of high-voltage transmission lines and serves approximately 360 market participants.

NYISO's mission, in collaboration with its stakeholders, is to serve the public interest and provide benefit to consumers by maintaining and enhancing regional reliability, operating open, fair and competitive wholesale electricity markets, planning the power system for the future, and providing factual information to policy makers, stakeholders and investors in the power system. The NYISO facilitates fair and open competition in the wholesale electricity markets in which electricity and related services are purchased and sold on the basis of competitive bidding. Billing invoices are issued by NYISO to each market participant to settle transactions occurring in the NYISO markets.

NYISO is governed by an independent board of directors, as well as a committee structure consisting of market participant representatives. In addition to FERC oversight, NYISO is also subject to regulation in certain aspects by the New York State Department of Public Service.

### (b) Basis of Accounting and Presentation

The accompanying financial statements have been prepared on an accrual basis of accounting in accordance with U.S. generally accepted accounting principles.

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant items subject to such estimates and assumptions include the useful lives of fixed assets, regulatory assets and liabilities, the valuation of derivatives, compensation, and liabilities for employee benefit obligations.

### (c) Regulatory Accounting

NYISO's financial statements are prepared in accordance with generally accepted accounting principles for rate-regulated entities, Financial Accounting Standards Board Accounting Standards Codification (FASB ASC) Topic 980, *Regulated Operations*. As such, regulators may permit specific incurred costs, typically treated as expenses by unregulated entities, to be deferred and expensed in future periods when it is probable that such costs will be recovered in customer rates. Incurred costs are deferred as regulatory assets when NYISO concludes that it is probable future revenues will be provided to permit recovery of the previously incurred cost. A regulatory liability is recorded when amounts that have been recorded by NYISO are likely to be refunded to customers through the rate-setting process.

### (d) Revenue Recognition

Settlements of market participants' energy transactions are not reflected in NYISO's Statements of Activities since they do not represent revenues or expenses of NYISO, as NYISO merely acts as an intermediary in the



settlement process. In this role, NYISO receives and disburses funds to/from market participants for each settlement period.

Effective July 1, 2012, NYISO's two FERC-approved tariffs, the Open Access Transmission Tariff (OATT) and the Market Administration and Control Area Services Tariff (Services Tariff), were amended to clarify NYISO's role as the single counterparty to market participant transactions in the NYISO markets. For all market participant transactions in the NYISO markets, flash title passes through NYISO immediately prior to passing to the ultimate buyer and seller of the product. This arrangement reinforces NYISO's authority to continue to net a market participant's offsetting financial positions in NYISO markets for credit and billing purposes; provides clarity in NYISO's legal standing to pursue collection from a bankrupt market participant; and, also complies with the FERC directives on credit policy requirements for competitive wholesale electricity markets.

Prior to October 2011, NYISO issued settlement invoices to market participants each month for transactions occurring in the previous month. In October 2011, NYISO began invoicing market participants each week for transactions occurring in the previous week as well as issuing a monthly invoice consisting of remaining uninvoiced days within that month and a "true-up" of the weekly invoices in that given month.

NYISO's tariffs allow recovery of NYISO's capital requirements, operating expenses and debt service costs through a surcharge assessed to market participants. The revenue from this surcharge, Rate Schedule 1, is earned when energy is scheduled and dispatched. Market participants are then billed for such charges in the subsequent settlement period's invoice.

NYISO's Rate Schedule 1 includes a timing mechanism that effectively meets the requirements of an alternative revenue program set forth in ASC Topic 980, *Regulated Operations*, Subtopic 602, *Revenue Recognition*. Accordingly, revenue is recognized for net financing obligations and capital costs incurred during the reporting period based on the revenue requirement formula in the tariffs. NYISO has recorded an Other Noncurrent Liability of \$9,463,626 and \$3,222,136, respectively, in the accompanying 2012 and 2011 Statements of Financial Position in connection with this rate-making recovery mechanism.

Revenues recorded as planning studies revenues arise from billing and collection services in the study service agreement process performed by NYISO. These revenues are offset by the corresponding study expenses, recorded in operating expenses, which were incurred in performing such studies. A portion of the deposits related to planning studies are nonrefundable and recorded as revenue when received.

**(e) Government Grants**

NYISO recognizes government grants when there is reasonable assurance that NYISO will comply with the conditions attached to the grant arrangement and the grant will be received. Government grants are recognized in the Statements of Activities in the period in which NYISO recognizes the related costs for which the government grant is intended to compensate.

**(f) Cash and Cash Equivalents**

NYISO considers short-term marketable securities with original maturities of three months or less to be cash equivalents. The cash equivalents at December 31, 2012 and 2011 were held in certificates of deposit and money market accounts invested primarily in short-term U.S. government obligations. NYISO's cash and cash equivalents consist primarily of funds accumulated for the working capital reserve, amounts for funding employee benefit plans, and for general operating purposes. In accordance with certain loan agreements, NYISO is required to maintain compensating balances.

**(g) Restricted Cash**

Restricted cash consists primarily of market participant security deposits held in escrow accounts, amounts prepaid by market participants in advance of settlement billing dates, amounts collected on settlement invoices, amounts due to market participants for overcollections on the voltage market, amounts collected for Transmission Congestion Contract (TCC) auctions, and amounts deposited for planning studies. Security deposits are invested at the market participant's choice in money market funds or short or intermediate-term bond funds. NYISO presents changes in restricted cash in the operating activities section of the Statements of Cash Flows instead of in the investing activities section. NYISO has determined that this classification is more suitable to the nature of its operations.

**(h) Other Assets**

Other assets consist primarily of timing differences on certain rate-making recoveries, the fair value of interest rate swap agreements, noncurrent prepaid expenses, and miscellaneous receivables.

**(i) Property and Equipment**

Property and equipment are recorded at cost. NYISO capitalizes property and equipment additions in excess of \$5,000 with a useful life greater than one year. Depreciation is computed on the straight-line method over the assets' estimated useful lives of three to five years, except for building and building improvements, which are depreciated on a straight-line basis over 20 years. When assets are retired or otherwise disposed of, the cost and related depreciation are removed, and any resulting gain or loss is reflected in expense for the period. Repairs and maintenance costs are charged to expense when incurred.

In accordance with ASC topic 350, *Intangibles – Goodwill and Other*, Subtopic 40, *Internal Use Software*, labor, overhead, interest, consulting, and related costs incurred to acquire and develop computer software for internal use are capitalized and amortized using the straight-line method over three years. Costs incurred prior to the determination of feasibility of developed software and following the in-service date of developed software are expensed.

In accordance with ASC topic 835, *Interest*, Subtopic 20, *Capitalization of Interest*, NYISO capitalizes the interest cost as part of the historical cost of acquiring certain assets.

Long-lived assets are recorded at cost, and are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amounts of the assets may not be recoverable. Management is not aware of any events or changes in circumstances that would necessitate a review of any long-lived assets as of the years ended December 31, 2012 and 2011.

**(j) Working Capital Reserve**

In order to maintain the liquidity and stability of NYISO's markets, NYISO has accumulated a working capital fund through amounts charged to market participants under the Rate Schedule 1. Any change to NYISO's working capital needs would be billed to market participants in future Rate Schedule 1 charges. Market participants are entitled to interest on their principal contributions to the working capital reserve. Each market participant is allocated interest based on the respective ratio share of each market participant's principal contributions to the total working capital fund. Accumulated interest on the working capital fund is distributed annually to market participants.

**(k) Market Participant Prepayments**

Amounts received from certain market participants who do not provide an alternate form of financial assurance and must prepay their obligations to NYISO in advance of settlements billing dates are recorded as market participant prepayments.

**(l) Deferred Revenue**

Advance payments from developers for planning studies are reflected as deferred revenue. Fees for participation in NYISO's governance process are billed to market participants in advance of the year for which they apply and are amortized over the related governance period. All such unamortized amounts are also included in deferred revenue.

**(m) Income Taxes**

The organization has been recognized by the Internal Revenue Service as an organization described in Internal Revenue Code (The Code) Section 501(c)(3) and is generally exempt from income taxes under Section 501(a) of the Code. During the calendar years 2012 and 2011, no unrelated business taxable income was generated by NYISO, and therefore no disclosure is made for federal or state income taxes.

**(n) Fair Value**

In accordance with ASC Topic 820, *Fair Value Measurement*, NYISO utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible. Fair value is determined based on assumptions that market participants would use in pricing an asset or liability in the principal or most advantageous market. When considering market participant assumptions in fair value measurements, the following fair value hierarchy distinguishes between the observable and unobservable inputs, which are categorized in one of the following levels:

- Level 1 inputs: Unadjusted quoted prices in active markets for identical assets or liabilities that NYISO has the ability to access at the measurement date.
- Level 2 inputs: Other than quoted prices included within Level 1 inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability.
- Level 3 inputs: Unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available, thereby allowing for a situation in which there is little, if any, market activity for the asset or liability at the measurement date.

The level in the fair value hierarchy within which a fair value measurement in its entirety falls is based on the lowest level input that is available for that particular financial instrument.

NYISO's financial instruments consist primarily of cash and cash equivalents, restricted cash, accounts receivable, prepaid expenses and other current assets, accounts payable and accrued expenses, short-term debt, long-term debt and benefit plan assets. The carrying value of long-term debt approximates fair value. The fair value of derivative financial instruments and benefit plan assets are discussed in notes 7 and 8, respectively.

**(o) Pension and Other Postretirement Benefit Plans**

NYISO has a defined benefit pension plan covering certain of its employees. The benefits are based on years of service and employee's compensation during the five years before retirement. NYISO also sponsors a defined benefit medical plan for retired employees and their dependents. NYISO records annual amounts relating



to its pension and postretirement plans based on calculations that incorporate various actuarial and other assumptions, including discount rates, mortality, assumed rates of return, compensation increases, turnover rates, and healthcare costs and trend rates. Assumptions are reviewed on an annual basis and modifications are made to the assumptions based on current rates and trends. The effect of modifications made to those assumptions utilized in recording its obligations under its plans are reasonable based on its experience and market conditions.

The net periodic costs are recognized as employees render the services necessary to earn the pension and postretirement benefits. Unamortized amounts that are expected to be recovered in rates in future years are recorded as a regulatory asset or liability. See note 8 for additional information.

**(p) Concentration of Credit Risk**

Financial instruments that subject NYISO to credit risk consist primarily of market settlement invoices and Rate Schedule 1 revenue due from market participants. As provided in the OATT and Services Tariff, NYISO reviews the creditworthiness of market participants, who are required to either maintain certain financial statement criteria and/or approved credit ratings, to post specified financial security in an amount sufficient to cover their outstanding liability to NYISO, or to prepay their obligations in advance of settlement billing dates.

NYISO's tariffs establish specific periods for the adjustment of settlement invoices and for market participant challenges to amounts billed for a particular service period. Settlement invoices can be adjusted for up to four months after the date of the monthly invoice issuance, and these invoices can be challenged for an additional one month after the issuance of all settlement adjustment invoices. Subsequent invoices issued during the settlement adjustment period "true up" amounts previously billed. After all true-up invoices are issued during the settlement adjustment period, market participants may challenge the amounts billed for a particular service period. If NYISO agrees with the provisions of the challenge, a final invoice is issued for that service period. As a result, NYISO is exposed to credit risk until all settlement adjustment and final invoices for each service period are finalized and liquidated. As of December 31, 2012, the adjustments and true-ups of all settlement invoices through March 2012 were completed. However, in the event of a market participant default and bad debt loss, Rate Schedule 1 of the OATT allows NYISO to recover bad debt losses from all remaining market participants on future invoices.

**(q) Derivative Financial Instruments**

NYISO records derivative financial instruments in accordance with ASC Topic 815, *Derivatives and Hedging*. ASC Topic 815 requires that all derivative financial instruments be recognized as either assets or liabilities, measured at fair value. The accounting for changes in fair value of derivatives (i.e., gains and losses) depends on the intended use of the derivative and the corresponding designation. The fair values of NYISO's derivative instruments are quoted by external sources. The changes in the fair value of these derivatives are recorded as a change in fair value of interest rate swaps in the Statement of Activities. Due to NYISO's regulated rates, the offset to the changes in fair value of these derivatives is recorded as either Other Current Assets or Other Noncurrent Assets.

NYISO uses derivative instruments primarily to hedge the cash flow effects of fluctuations in its interest rate costs. NYISO is exposed to credit loss in the event of nonperformance by the commercial banks under the interest rate swap agreements. However, NYISO does not anticipate nonperformance by the commercial banks. See note 7 for additional information.

(2) **Accounts Receivable**

NYISO's accounts receivable at December 31, 2012 and 2011, consisted of the following:

|  | <u>2012</u>                | <u>2011</u>             |
|--|----------------------------|-------------------------|
| Billed:  |                            |                         |
| Past due settlement invoices                                 | \$ 997,376                 | 998,673                 |
| Grants billed receivables                                    | 889,486                    | 28,036                  |
| Miscellaneous billed receivables                             | 290,846                    | 405,425                 |
| Reserve for doubtful accounts – past due settlement invoices | <u>(996,466)</u>           | <u>(996,979)</u>        |
|  | <u>1,181,242</u>           | <u>435,155</u>          |
| Unbilled:  |                            |                         |
| Rate Schedule 1 revenue for December                         | 4,128,477                  | 2,989,782               |
| Grants unbilled receivables                                  | 1,283,112                  | 813,644                 |
| Miscellaneous unbilled receivables                           | 274,472                    | 821,230                 |
| Replenishments of working capital reserve                    | 306                        | 306                     |
| Bad debt losses recoverable from market participants         | <u>—</u>                   | <u>513</u>              |
|  | <u>5,686,367</u>           | <u>4,625,475</u>        |
| Total  | \$ <u><u>6,867,609</u></u> | <u><u>5,060,630</u></u> |

Rate Schedule 1 of the OATT allows NYISO to recover bad debt losses from market participants and provides guidance on the provisions of such recoveries. NYISO's reserve for doubtful accounts at December 31, 2012 and 2011, results primarily from past due settlement invoices related to a subsidiary of Enron Corporation. As of December 31, 2012 and 2011, NYISO recorded unbilled receivables of \$0 and \$513, respectively, to reflect amounts yet to be recovered from remaining market participants in connection with other bad debt losses.

NYISO recovers its Rate Schedule 1 revenue in the invoice following the period of service. Therefore, a portion of unbilled Rate Schedule 1 revenues for December are billed and recovered in January of the subsequent year.

(3) **Regulatory Assets**

At December 31, 2012 and 2011, regulatory assets were comprised of the following:

|   | <u>2012</u>                 | <u>2011</u>              |
|---|-----------------------------|--------------------------|
| Pension and postretirement funding                    | \$ 13,301,346               | 12,872,388               |
| Funding for deferred charges                          | 3,501,098                   | 2,709,361                |
| Rate Schedule 1 transactional volume undercollections | <u>1,999,522</u>            | <u>—</u>                 |
| Total   | 18,801,966                  | 15,581,749               |
| Less current portion                                  | <u>(1,999,522)</u>          | <u>—</u>                 |
| Long-term portion                                     | \$ <u><u>16,802,444</u></u> | <u><u>15,581,749</u></u> |

ASC Topic 715, *Compensation – Retirement Benefits*, requires an employer to recognize the overfunded or underfunded status of a defined pension benefit or postretirement plan (other than a multiemployer plan) as an asset or liability in its Statement of Financial Position and to recognize changes in the funded status in the year in which the changes occur. For NYISO, this recognition creates a deferred noncurrent regulatory asset or liability for accumulated actuarial losses or gains to be recognized in future periods.

NYISO recovers its costs through a surcharge assessed to market participants via Rate Schedule 1 of the OATT and Services Tariff. To the extent that transactional volumes billed under Rate Schedule 1 fall short of the amount expected when the Rate Schedule 1 surcharge is established, NYISO reflects a regulatory asset for the undercollection amounts.

#### (4) **Property and Equipment**

As of December 31, 2012 and 2011, property and equipment consisted of the following:

|   | <u>2012</u>                  | <u>2011</u>              |
|---|------------------------------|--------------------------|
| Software developed for internal use                         | \$ 115,485,965               | 116,582,122              |
| Computer hardware and software                              | 54,816,807                   | 67,062,892               |
| Building, building improvements, and leasehold improvements | 52,828,737                   | 34,734,833               |
| Work in progress  | 32,428,353                   | 24,714,344               |
| Machinery and equipment                                     | 4,748,123                    | 4,491,407                |
| Furniture and fixtures                                      | 3,054,652                    | 3,429,648                |
| Land and land improvements                                  | <u>2,091,376</u>             | <u>2,091,376</u>         |
|   | 265,454,013                  | 253,106,622              |
| Accumulated depreciation and amortization                   | <u>(163,743,602)</u>         | <u>(173,405,167)</u>     |
| Property and equipment – net                                | \$ <u><u>101,710,411</u></u> | <u><u>79,701,455</u></u> |

Property and equipment includes interest of \$330,375 and \$53,028 capitalized during 2012 and 2011, respectively. Depreciation and amortization expense for the years ended December 31, 2012 and 2011 was \$19,573,767 and \$18,911,245, respectively.

Total capitalized labor as of December 31, 2012 and 2011 was \$6,972,492 and \$4,435,905, respectively.

#### (5) **Short-Term Debt**

On July 21, 2010, NYISO entered into a \$50.0 million Revolving Credit Facility that expires on December 31, 2013. The proceeds from this Revolving Credit Facility are to be used for working capital purposes. Interest on borrowings under the Revolving Credit Facility is based on NYISO's option of varying rates of interest tied to either the prime rate or the London Interbank Offered Rate (LIBOR). At December 31, 2012 and 2011, respectively, there were no amounts outstanding on the Revolving Credit Facility. During 2012 and 2011, \$9.0 million and \$8.5 million in borrowings were made under this credit agreement, respectively, at an interest rate of 1.85%.

## (6) Long-Term Debt

At December 31, 2012, the following amounts were outstanding on NYISO's long-term debt:

|                      | 2012<br>Infrastructure<br>loan (v) | 2011 – 2013<br>Budget<br>facility loan (ii) | 2007 – 2010<br>Budget<br>facility loan (i) | Mortgage (iii)   | Renovations<br>(iii) | Total             |
|----------------------|------------------------------------|---|--|------------------|----------------------|-------------------|
| Outstanding balance  | \$ 17,582,715                      | 42,466,667                                  | 9,785,714                                  | 10,490,331       | 8,166,387            | 88,491,814        |
| Less current portion | —                                  | (16,933,333)                                | (9,785,714)                                | (575,537)        | (379,757)            | (27,674,341)      |
| Long-term portion    | <u>\$ 17,582,715</u>               | <u>25,533,334</u>                           | <u>—</u>                                   | <u>9,914,794</u> | <u>7,786,630</u>     | <u>60,817,473</u> |

At December 31, 2011, the following amounts were outstanding on NYISO's long-term debt:

|                      | 2011<br>Infrastructure<br>loan (iv) | 2011 – 2013<br>Budget<br>facility loan (ii) | 2007 – 2010<br>Budget<br>facility loan (i) | Mortgage (iii)    | Renovations<br>(iii) | Total             |
|----------------------|-------------------------------------|---|--|-------------------|----------------------|-------------------|
| Outstanding balance  | \$ 3,240,232                        | 25,000,000                                  | 26,171,428                                 | 11,031,396        | 8,522,549            | 73,965,605        |
| Less current portion | —                                   | (8,333,333)                                 | (15,885,715)                               | (541,065)         | (356,162)            | (25,116,275)      |
| Long-term portion    | <u>\$ 3,240,232</u>                 | <u>16,666,667</u>                           | <u>10,285,713</u>                          | <u>10,490,331</u> | <u>8,166,387</u>     | <u>48,849,330</u> |

(i) On January 22, 2007, NYISO entered into an unsecured \$80.0 million line of credit facility (2007 – 2010 Budget Facility), the proceeds of which could be drawn until January 2011 to fund capital purchases and the development of significant projects during 2007 – 2010. NYISO was required to convert each year's annual borrowings to term loans, with principal and interest payments payable over three years. Interest on borrowings under this facility is based on NYISO's option of varying rates of interest tied to LIBOR plus 40 basis points for borrowings during the draw periods, LIBOR plus 65 basis points for borrowings converted to term loans, or the prime rate. Interest payments on borrowings are due monthly.

On January 23, 2007, NYISO entered into four interest rate swap agreements to fix interest payments on \$60.0 million of the \$80.0 million available on this line of credit facility. Under the swap agreements, NYISO will pay fixed interest rates ranging between 5.392% to 5.515% during the annual borrowing periods and 5.642% to 5.765% on the four annual term loan conversions. See additional information in note 7.

During 2007, \$15.0 million was drawn on the 2007 – 2010 Budget Facility, which was converted to a term loan in January 2008 with monthly principal and interest payments payable from January 2008 through December 2010. At December 31, 2010, these borrowings were fully repaid. During 2008, an additional \$16.7 million was drawn on the 2007 – 2010 Budget Facility, which was converted to a term loan in January 2009 with monthly principal and interest payments payable from January 2009 through December 2011. At December 31, 2011, these borrowings were fully repaid. During 2009, an additional \$18.3 million was drawn on the 2007 – 2010 Budget Facility, which was converted to a term loan in February 2010 with monthly principal and interest payments payable from February 2010 through December 2012. At December 31, 2012, these borrowings were fully repaid. During 2010, an additional \$23.0 million was drawn on the 2007 – 2010 Budget Facility and in January 2011, the remaining \$7.0 million was drawn on the 2007 – 2010 Budget Facility. The \$30.0 million in 2010 – 2011 borrowings was converted to a term loan in February 2011 with monthly principal and interest payments payable from February 2011 through December 2013. At December 31, 2012, the interest rate on \$5.0 million was fixed at 5.765% and the remaining \$4.8 million was at 0.860%. At December 31, 2011, the interest rate on \$10.0 million was fixed at 5.765% and the remaining \$10.6 million was at 0.920%.



(ii) On July 21, 2010, NYISO entered into an unsecured \$75.0 million line of credit facility (2011 – 2013 Budget Facility), the proceeds of which may be drawn between January 1, 2011 through December 31, 2013 to fund capital purchases and the development of significant projects during 2011 – 2013. NYISO must convert each year's annual borrowings to term loans, with principal and interest payments payable over three years. Interest on borrowings under this facility is based on NYISO's option of varying rates of interest tied to LIBOR plus 175 basis points for borrowings, or the prime rate. Interest payments on borrowings are due monthly. During 2011, \$25.0 million was drawn on the 2011 – 2013 Budget Facility, which was converted to a term loan in January 2012 with monthly principal and interest payments payable from January 2012 through December 2014. At December 31, 2012, the interest rate on \$13.3 million was fixed at 3.280% and the remaining \$3.4 million was at 1.960%. At December 31, 2011, the interest rate on \$20.0 million was fixed at 3.280% and the remaining \$5.0 million was at 2.043%. During 2012, an additional \$25.8 million was drawn on the 2011 – 2013 Budget Facility, which was converted to a term loan in January 2013 with monthly principal and interest payments payable from January 2013 through December 2015. At December 31, 2012 the interest rate on \$20.0 million was fixed at 4.080% and the remaining \$5.8 million was at 1.960%.

On July 23, 2010, NYISO entered into three interest rate swap agreements to fix interest payments on \$60.0 million of the \$75.0 million available on the 2011 – 2013 Budget Facility. Under the swap agreements, NYISO will pay fixed interest rates ranging between 3.280% to 4.773%. See additional information in note 7.

(iii) On July 8, 2005, NYISO entered into two financing agreements to purchase and renovate a 140,000-square foot office building in Rensselaer, NY. The first agreement is a \$14.7 million mortgage to finance the building purchase (Mortgage), and the second agreement represents a \$10.0 million line of credit for renovations during an 18-month period, beginning in July 2005 (Renovations Loan). The Mortgage has principal and interest payments payable over 20 years, beginning September 2005. Principal and interest payments on borrowings made during the Renovations Loan draw period are payable over 20 years, beginning in January 2007. During 2005, \$14.7 million was borrowed on the Mortgage, and during 2006, \$10.0 million was drawn on the Renovations Loan. Both agreements are secured by liens on the building and subsequent capitalized renovations. Interest on borrowings under both facilities is due monthly and is based on varying rates of interest tied to LIBOR plus 100 basis points. On February 15, 2005, NYISO entered into an interest rate swap agreement on the Mortgage, which fixed the interest rate on this loan at 5.790%. On February 15, 2005, NYISO also entered into an interest rate swap agreement on the Renovations Loan, which fixed the interest rate on these borrowings at 5.960%, beginning on January 1, 2007.

(iv) On July 8, 2011, NYISO entered into a financing agreement (2011 Infrastructure Loan) to renovate its facility in Guilderland, NY and to perform construction at its facility in Rensselaer, NY. The agreement permits borrowings of up to \$45.0 million through July 7, 2014. The NYISO is required to make interest only payments through July 7, 2014, followed by 17 years of principal and interest payments on borrowings made during the 2011 Infrastructure Loan draw period, beginning in July 2014. Interest on borrowings under the 2011 Infrastructure Loan is due monthly and is based on varying rates of interest tied to LIBOR plus 325 basis points. The 2011 Infrastructure Loan is secured by a limited mortgage lien of \$8.0 million on the NYISO's Guilderland facility. At December 31, 2011, there was \$3.2 million outstanding on the 2011 Infrastructure Loan. On July 18, 2012, the 2011 Infrastructure Loan was paid off, terminated and replaced with a new unsecured financing agreement (2012 Infrastructure Loan).

(v) On July 18, 2012, NYISO entered into the 2012 Infrastructure Loan to renovate its facilities in Guilderland, NY and to perform construction at its facility in Rensselaer, NY. The agreement permits borrowings of up to \$45.0 million through July 18, 2014. The NYISO is required to make interest only payments for up to 24 months, followed by 17 years of principal and interest payments. Interest on borrowings under the 2012 Infrastructure Loan is due monthly and is based on varying rates of interest tied to LIBOR plus 225 basis points. At December 31, 2012, the interest rate on \$16.4 million was fixed at 4.149% and the remaining \$1.2 million was at 2.460%.

On July 18, 2012, NYISO entered into an interest rate swap agreement to fix interest on \$40.0 million of the \$45.0 million available under the 2012 Infrastructure Loan. Under this swap agreement, NYISO will pay a fixed interest rate of 4.149%. See additional information in note 7.

At December 31, 2012, scheduled maturities of NYISO's long-term debt were as follows:

|            | 2012<br>Infrastructure<br>loan | 2011 – 2013<br>Budget<br>facility loan | 2007 – 2010<br>Budget<br>facility loan | Mortgage   | Renovations | Total      |
|------------|--------------------------------|--|--|------------|-------------|------------|
| 2013       | \$ —                           | 16,933,333                             | 9,785,714                              | 575,537    | 379,757     | 27,674,341 |
| 2014       | 517,140                        | 16,933,334                             | —                                      | 610,246    | 403,352     | 18,464,072 |
| 2015       | 1,034,280                      | 8,600,000                              | —                                      | 647,050    | 428,412     | 10,709,742 |
| 2016       | 1,034,280                      | —                                      | —                                      | 684,637    | 453,836     | 2,172,753  |
| 2017       | 1,034,280                      | —                                      | —                                      | 727,364    | 483,225     | 2,244,869  |
| Thereafter | 13,962,735                     | —                                      | —                                      | 7,245,497  | 6,017,805   | 27,226,037 |
| Total      | \$ 17,582,715                  | 42,466,667                             | 9,785,714                              | 10,490,331 | 8,166,387   | 88,491,814 |

#### (7) Derivatives and Hedging Activities

NYISO's derivative instruments are cash flow hedges used to hedge interest rate costs. The changes in the fair value of these derivatives are recorded in the Statements of Activities as a change in fair value of interest rate swaps. Due to NYISO's regulated rates, the offset to the changes in fair value of these derivatives is offset to Other Noncurrent Assets and Other Noncurrent Liabilities.

In February 2005, NYISO entered into two interest rate swap agreements with a commercial bank to fix interest rate payments on the financing of a new office building purchase. The notional amount of debt on the swap agreement for the Mortgage was \$14,708,750, and NYISO pays a fixed interest rate of 5.79% on the outstanding principal amount of this financing on payments from August 2005 through August 2025. The notional amount of debt on the swap agreement for the Renovations Loan was \$10,000,000, and NYISO pays a fixed interest rate of 5.96% on payments from January 2007 through January 2027. As of December 31, 2012 and 2011, the fair value of these interest rate swap agreements was (\$2,364,720) and (\$2,390,695), respectively, for the Mortgage and (\$2,066,010) and (\$2,088,765), respectively, for the Renovations Loan, recorded in Other Noncurrent Liabilities. For the years ended December 31, 2012 and 2011, NYISO recorded interest income of \$48,730 and interest expense of \$1,823,418, respectively, related to these two swap agreements.

In January 2007, NYISO entered into four interest rate swap agreements with a commercial bank to fix interest rate payments on the 2007 – 2010 Budget Facility. The notional amount of debt on the swap agreements was \$60,000,000. NYISO pays fixed interest rates ranging between 5.392% to 5.515% during the annual borrowing periods and 5.642% to 5.765% on the four annual term loan conversions from January 2008 through December 2013. As of December 31, 2012 and 2011, the fair value of these interest rate swap agreements was (\$112,925) and (\$555,030), respectively, recorded in Other Noncurrent Liabilities. For the years ended December 31, 2012 and 2011, NYISO recorded interest income of \$442,105 and \$957,745, respectively, related to these four swap agreements.

In July 2010, NYISO entered into three interest rate swap agreements with a commercial bank to fix interest rate payments on the 2011 – 2013 Budget Facility. The notional amount of debt on the swap agreements was \$60,000,000. NYISO pays fixed interest rates ranging between 3.280% to 4.7725% through December 2016. As of December 31, 2012 and 2011, the fair value of these interest rate swap agreements was (\$1,709,487) and (\$1,471,527), respectively, recorded in Other Noncurrent Liabilities. For the years ended December 31, 2012 and 2011, NYISO recorded interest expense of \$237,960 and of \$1,517,626, respectively, related to these three swap agreements.

In July 2012, NYISO entered into a interest rate swap agreement with a commercial bank to fix interest rate payments on the 2012 Infrastructure Loan. The notional amount of debt on the swap agreements was \$40,000,000. NYISO pays a fixed interest rate of 4.149% through July 2031. As of December 31, 2012, the fair value of this interest rate swap agreement was \$169,429, recorded in Other Noncurrent Assets. For the year ended December 31, 2012, NYISO recorded interest income of \$169,429, related to this swap agreement.

|                             |    | <b>Notional<br/>amount<br/>at inception</b> | <b>Notional<br/>amount at<br/>December 31,<br/>2012</b> | <b>Fair value at<br/>December 31,<br/>2011</b> | <b>Fair value at<br/>December 31,<br/>2012</b> | <b>2012<br/>Gain (loss) on<br/>market value</b> |
|-----------------------------|----|---|---|--|--|---|
| Loan:                       |    |   |   |  |  |   |
| 2007 – 2010 Budget Facility | \$ | 60,000,000                                  | 5,000,000   | (555,030)                                      | (112,925)                                      | 442,105   |
| 2011 – 2013 Budget Facility |    | 60,000,000                                  | 37,333,328  | (1,471,527)                                    | (1,709,487)                                    | (237,960)                                       |
| 2012 Infrastructure Loan    |    | 40,000,000                                  | 16,359,277  | —  | 169,429  | 169,429   |
| Mortgage                    |    | 14,708,750                                  | 10,490,331  | (2,390,695)                                    | (2,364,720)                                    | 25,975  |
| Renovations                 |    | 10,000,000                                  | 8,166,387   | (2,088,765)                                    | (2,066,010)                                    | 22,755  |

The fair value of NYISO's interest rate swaps are determined using pricing models developed based on the LIBOR swap rate and other observable market data (Level 2 inputs).

Interest rate swaps are included in Other Noncurrent Assets and Other Noncurrent Liabilities. The following table presents the carrying amounts and estimated fair values of NYISO's financial instruments at December 31, 2012 and 2011:

|                        |    | <b>2012</b>                |                   | <b>2011</b>                |                   |
|------------------------|----|----------------------------|-------------------|----------------------------|-------------------|
|                        |    | <b>Carrying<br/>amount</b> | <b>Fair value</b> | <b>Carrying<br/>amount</b> | <b>Fair value</b> |
| Financial assets:      |    |                            |                   |                            |                   |
| Interest rate swaps    | \$ | 169,429                    | 169,429           | —                          | —                 |
| Financial liabilities: |    |                            |                   |                            |                   |
| Interest rate swaps    | \$ | 6,253,142                  | 6,253,142         | 6,506,017                  | 6,506,017         |

## (8) Employee Benefit Plans

### (a) Defined Benefit Pension and Postretirement Plans

NYISO has a defined benefit pension plan covering substantially all employees. Plan benefits are based on employee compensation levels and years of service, including service for certain employees previously employed by NYPP member companies. Employees become vested in pension benefits after three years of credited service. NYISO expects to contribute \$0.8 million to the pension plan in 2013. Effective December 1, 2009, NYISO adopted changes to its pension plan to end the accrual of future benefits for most employees. Certain grandfathered employees will continue to accrue benefits until attaining age 55. NYISO replaced the defined benefit accruals with equivalent contributions to employee 401(k) plan accounts after December 1, 2009.

NYISO sponsors a defined benefit postretirement plan to provide medical and life insurance benefits for eligible retirees and their dependents. Substantially all employees who retire from NYISO become eligible for these benefits provided they have been credited with at least ten years of NYISO service (5 years of NYISO service for those employees hired before January 1, 2005). The benefits are contributory based upon years of service, with NYISO paying up to 50% of costs for retired employees and up to 25% for their dependents (subject to specified dollar limits). Medical coverage becomes secondary upon Medicare eligibility and life

insurance coverage is reduced upon reaching age 65. Effective January 1, 2012, NYISO terminated the life insurance benefit of the postretirement plan.

Pursuant to resolutions adopted by NYISO's Board of Directors, NYISO's Retirement Board has been granted the authority to control and manage the operation and administration of NYISO's pension and postretirement plans, including responsibility for the investment of plan assets and the ability to appoint investment managers. The Retirement Board currently consists of NYISO's Chief Financial Officer, General Counsel, Vice President of Human Resources, and Controller. The Retirement Board provides reports to the Commerce and Compensation Committee of the Board of Directors on at least an annual basis.

The Company records the over-funded or under-funded position of a defined benefit pension and postretirement plan as an asset or liability, with any unrecognized prior service costs, transition obligations, or gains/losses reported as recoverable under ASC Topic 980 and recorded as a regulatory asset.

For payment of benefits under the postretirement plan, as noted above, the NYISO established a Voluntary Employee Benefit Association (VEBA) trust in January 2010. The assets held in the VEBA trust reduce the accumulated postretirement benefit obligation as reported on the NYISO's Statements of Financial Position. The VEBA trust held assets of \$4,248,809 and \$3,921,198 as of December 31, 2012 and 2011, respectively. As noted in the table below, current obligations are assumed to be paid out of the trust assets, with the remaining unfunded obligation to be reflected as a noncurrent liability.

The schedules that follow show the benefit obligations, the plan assets, and the funded status as of December 31, 2012 and 2011, and the change in benefit obligations for NYISO's pension and postretirement plans for the years ended December 31, 2012 and 2011.

|   | Pension plan   |             | Postretirement plan |             |
|---|----------------|-------------|---------------------|-------------|
|   | 2012           | 2011        | 2012                | 2011        |
| Change in benefit obligation:                 |                |             |                     |             |
| Benefit obligation – beginning of year        | \$ 30,869,721  | 28,300,166  | 8,401,151           | 7,092,538   |
| Service cost                                  | 320,341        | 315,517     | 695,893             | 625,915     |
| Interest cost                                 | 1,269,658      | 1,362,761   | 335,081             | 375,039     |
| Actuarial loss                                | 2,593,371      | 2,006,643   | (72,423)            | 610,434     |
| Participant contributions                     | —              | —           | 121,315             | 133,998     |
| Benefits paid                                 | (987,626)      | (1,115,366) | (204,224)           | (222,354)   |
| Retiree life insurance elimination            | —              | —           | —                   | (214,419)   |
| Benefit obligation – end of year              | 34,065,465     | 30,869,721  | 9,276,793           | 8,401,151   |
| Change in plan assets:                        |                |             |                     |             |
| Fair value of plan assets – beginning of year | 26,167,287     | 25,362,899  | 3,921,198           | 4,048,651   |
| Actual return on plan assets                  | 2,978,390      | 462,895     | 451,696             | 1,143       |
| Employer contributions                        | 1,000,000      | 1,623,996   | —                   | —           |
| Participant contributions                     | —              | —           | 121,315             | 133,998     |
| Benefits paid                                 | (987,626)      | (1,115,366) | (204,224)           | (222,354)   |
| Expenses paid                                 | (124,514)      | (167,137)   | (41,176)            | (40,240)    |
| Fair value of plan assets – end of year       | 29,033,537     | 26,167,287  | 4,248,809           | 3,921,198   |
| Funded status                                 | \$ (5,031,928) | (4,702,434) | (5,027,984)         | (4,479,953) |



Amounts recognized in the 2012 and 2011 Statements of Financial Position consist of:

|   | <b>Pension plan</b> |              | <b>Postretirement plan</b> |             |
|---|---------------------|--------------|----------------------------|-------------|
|   | <b>2012</b>         | <b>2011</b>  | <b>2012</b>                | <b>2011</b> |
| Net actuarial loss/(gain)<br>recognized in regulatory<br>assets/(liabilities) | \$ 11,773,587       | 11,100,923   | 1,527,759                  | 1,771,465   |
| Projected benefit obligation  | \$ (34,065,465)     | (30,869,721) | (9,276,793)                | (8,401,151) |
| Fair value of assets  | 29,033,537          | 26,167,287   | 4,248,809                  | 3,921,198   |
| Unfunded<br>projected benefit<br>obligation                                   | \$ (5,031,928)      | (4,702,434)  | (5,027,984)                | (4,479,953) |

Net periodic pension expense and other postretirement benefit costs include the following components:

|  | <b>Pension plan</b> |             | <b>Postretirement plan</b> |             |
|--|---------------------|-------------|----------------------------|-------------|
|  | <b>2012</b>         | <b>2011</b> | <b>2012</b>                | <b>2011</b> |
| Service cost   | \$ 320,341          | 315,517     | 695,893                    | 625,915     |
| Interest cost  | 1,269,658           | 1,362,761   | 335,081                    | 375,039     |
| Expected return on plan assets                         | (1,639,307)         | (1,888,833) | (245,081)                  | (304,838)   |
| Amortization of unrecognized<br>prior service cost     | 32,460              | 51,424      | —                          | —           |
| Amortization of<br>unrecognized (gain)/loss            | 673,678             | 399,036     | 5,844                      | (71,868)    |
| One-time credit for life<br>insurance plan termination | —                   | —           | —                          | (1,177,874) |
| Total  | \$ 656,830          | 239,905     | 791,737                    | (553,626)   |

NYISO uses a December 31 measurement date for its pension and postretirement benefit plans. NYISO's accumulated benefit obligation for the defined benefit pension plan is \$33,695,371 and \$30,372,218 at December 31, 2012 and 2011, respectively.

The following table as of December 31, 2012 and 2011, shows the assumptions used to calculate the pension and postretirement benefit obligations and net periodic costs:

|                                   | <b>Pension plan</b> |             | <b>Postretirement plan</b> |             |
|-----------------------------------|---------------------|-------------|----------------------------|-------------|
|                                   | <b>2012</b>         | <b>2011</b> | <b>2012</b>                | <b>2011</b> |
| Benefit obligations:              |                     |             |                            |             |
| Discount rate                     | 3.60%               | 4.30%       | 4.00%                      | 4.55%       |
| Rate of compensation<br>increases | 3.00                | 3.00        | N/A                        | N/A         |
| Net cost or credit:               |                     |             |                            |             |
| Discount rate                     | 4.30%               | 5.20%       | 4.55%                      | 5.50%       |
| Rate of compensation<br>increases | 3.00                | 3.00        | N/A                        | 3.00        |
| Expected return on<br>plan assets | 6.40                | 7.75        | N/A                        | N/A         |

Effective January 1, 2012, the retiree life insurance benefit was eliminated, and therefore, the rate of compensation assumption was not applicable for benefit obligations.

NYISO's expected rate of return on plan assets reflects anticipated returns on the pension plan's current and future assets. To determine this rate, NYISO considers historical returns for equity and debt securities, as well as current capital market conditions and projected future conditions. The long-term investment objective for NYISO's pension plan is to maximize the total return on plan assets while limiting risk, reflected in volatility of returns, to prudent levels. To that end, NYISO's Retirement Board has appointed and regularly meets with an investment advisor to review asset performance, compliance with target asset allocation guidelines, and appropriate levels of asset diversification. NYISO's investment advisor operates under written guidelines provided by NYISO, which cover such areas as investment objectives, performance measurement, permissible investments, investment restrictions, and communication and reporting requirements. During 2011, the NYISO Retirement Board began a transition towards a revised investment strategy for pension plan investments to minimize the volatility in plan investments while balancing the long-term plan returns. The transition to the revised investment strategy was completed during 2012.

NYISO's pension and postretirement plan investments are composed of common stocks, mutual funds and commingled trust funds that are redeemable at net asset value (NAV) on a daily basis. Redemption of such investments generally requires 1 to 2 days written prior notice prior to the redemption date.

The targeted allocation and actual investment mix of the pension plan's assets are as follows December 31:

| Asset category                      | 2012   |        | 2011   |        |
|-------------------------------------|--------|--------|--------|--------|
|                                     | Target | Actual | Target | Actual |
| Fixed income                        | 70%    | 70%    | 49%    | 47%    |
| International and emerging equities | 15     | 16     | 21     | 21     |
| Large cap equities                  | 8      | 8      | 17     | 18     |
| Mid cap equities                    | 5      | 4      | 8      | 9      |
| Small cap equities                  | 2      | 2      | 5      | 5      |
| Total                               | 100%   | 100%   | 100%   | 100%   |

The targeted allocation and actual investment mix of the VEBA Trust (postretirement) plan's assets are as follows:

| Asset category                      | 2012   |        | 2011   |        |
|-------------------------------------|--------|--------|--------|--------|
|                                     | Target | Actual | Target | Actual |
| Domestic equities                   | 50%    | 52%    | 50%    | 52%    |
| Fixed income                        | 35     | 33     | 35     | 35     |
| International and emerging equities | 15%    | 15     | 15     | 13     |
| Total                               | 100%   | 100%   | 100%   | 100%   |

The actual rate of return for the pension plan's assets as of December 31, 2012 and 2011 as:

| Asset category                      | Annual returns<br>December 31 |        |
|-------------------------------------|-------------------------------|--------|
|                                     | 2012                          | 2011   |
| International and emerging equities | 18.4%                         | (3.5)% |
| Large cap equities                  | 16.0                          | 0.6    |
| Small cap equities                  | 12.9                          | 2.8    |
| Mid cap equities                    | 12.7                          | 0.1    |
| Fixed income                        | 6.5                           | 6.3    |
| Total portfolio weighted average    | 11.4%                         | 2.3%   |

The actual rate of return for the VEBA Trust (postretirement) plan's assets as of December 31, 2012 and 2011 as:

| Asset category                      | Annual returns<br>December 31 |         |
|-------------------------------------|-------------------------------|---------|
|                                     | 2012                          | 2011    |
| International and emerging equities | 21.7%                         | (14.2)% |
| Domestic equities                   | 11.6                          | (2.0)   |
| Fixed income                        | 4.3                           | 6.9     |
| Total portfolio weighted average    | 10.5%                         | (1.0)%  |

The fair values of the pension plan assets at December 31, 2012 and 2011 are presented below:

| 2012                                |               |            |         |            |
|-------------------------------------|---------------|------------|---------|------------|
| Fair value                          |               |            |         |            |
|                                     | Level 1       | Level 2    | Level 3 | Total      |
| Domestic investments:               |               |            |         |            |
| Equities:                           |               |            |         |            |
| Small cap                           | \$ —          | 724,253    | —       | 724,253    |
| Mid cap                             | —             | 1,285,626  | —       | 1,285,626  |
| Large cap                           | —             | 2,268,268  | —       | 2,268,268  |
| Total                               | —             | 4,278,147  | —       | 4,278,147  |
| Fixed income                        | 5,908,661     | 14,269,300 | —       | 20,177,961 |
| Total                               | 5,908,661     | 14,269,300 | —       | 20,177,961 |
| International and emerging equities | 4,484,788     | —          | —       | 4,484,788  |
| Total                               | 4,484,788     | —          | —       | 4,484,788  |
| Cash and cash equivalents           | 92,641        | —          | —       | 92,641     |
|                                     | \$ 10,486,090 | 18,547,447 | —       | 29,033,537 |

|                                     |    | 2011       |            |         |            |
|-------------------------------------|----|------------|------------|---------|------------|
|                                     |    | Fair value |            |         |            |
|                                     |    | Level 1    | Level 2    | Level 3 | Total      |
| Domestic investments:               |    |            |            |         |            |
| Equities:                           |    |            |            |         |            |
| Small cap                           | \$ | —          | 1,443,198  | —       | 1,443,198  |
| Mid cap                             |    | —          | 2,226,309  | —       | 2,226,309  |
| Large cap                           |    | —          | 4,802,763  | —       | 4,802,763  |
| Total                               |    | —          | 8,472,270  | —       | 8,472,270  |
| Fixed income                        |    | 1,439,894  | 10,726,717 | —       | 12,166,611 |
| Total                               |    | 1,439,894  | 10,726,717 | —       | 12,166,611 |
| International and emerging equities |    | 5,396,052  | —          | —       | 5,396,052  |
| Total                               |    | 5,396,052  | —          | —       | 5,396,052  |
| Cash and cash equivalents           |    | 132,354    | —          | —       | 132,354    |
|                                     | \$ | 6,968,300  | 19,198,987 | —       | 26,167,287 |

The fair values of the postretirement plan assets at December 31, 2012 and 2011 are presented below:

|                                     |    | 2012       |         |         |           |
|-------------------------------------|----|------------|---------|---------|-----------|
|                                     |    | Fair value |         |         |           |
|                                     |    | Level 1    | Level 2 | Level 3 | Total     |
| Domestic equities                   | \$ | 2,060,126  | —       | —       | 2,060,126 |
| Total                               |    | 2,060,126  | —       | —       | 2,060,126 |
| Fixed income:                       |    |            |         |         |           |
| Fixed income securities             |    | 587,995    | —       | —       | 587,995   |
| U.S. government obligations         |    | 447,251    | —       | —       | 447,251   |
| Mortgage backed securities          |    | —          | 222,227 | —       | 222,227   |
| Corporate debt securities           |    | —          | 95,221  | —       | 95,221    |
| Total                               |    | 1,035,246  | 317,448 | —       | 1,352,694 |
| International and emerging equities |    | 725,035    | —       | —       | 725,035   |
| Total                               |    | 725,035    | —       | —       | 725,035   |
| Cash and cash equivalents           |    | 110,954    | —       | —       | 110,954   |
|                                     | \$ | 3,931,361  | 317,448 | —       | 4,248,809 |



| 2011                                |              |         |         |           |
|-------------------------------------|--------------|---------|---------|-----------|
| Fair value                          |              |         |         |           |
|                                     | Level 1      | Level 2 | Level 3 | Total     |
| Domestic equities                   | \$ 1,929,972 | —       | —       | 1,929,972 |
| Total                               | 1,929,972    | —       | —       | 1,929,972 |
| Fixed income:                       |              |         |         |           |
| Fixed income securities             | 536,946      | —       | —       | 536,946   |
| U.S. government obligations         | 286,935      | —       | —       | 286,935   |
| Mortgage backed securities          | —            | 328,154 | —       | 328,154   |
| Corporate debt securities           | —            | 93,605  | —       | 93,605    |
| Total                               | 823,881      | 421,759 | —       | 1,245,640 |
| International and emerging equities | 558,375      | —       | —       | 558,375   |
| Total                               | 558,375      | —       | —       | 558,375   |
| Cash and cash equivalents           | 187,211      | —       | —       | 187,211   |
|                                     | \$ 3,499,439 | 421,759 | —       | 3,921,198 |

The assumed health care cost trend rates for the postretirement plan are 8.75% for 2013 decreasing to 5.0% in 2021, and 8.0% for 2011 decreasing to 4.75% in 2019. A one-percentage point change in the assumed health care cost trend rate would change the 2012 postretirement benefit obligation as follows:

|   | 1% increase | 1% decrease |
|---|-------------|-------------|
| Effect on postretirement benefit obligation             | \$ 645,300  | (566,200)   |
| Effect on total of service and interest cost components | 100,900     | (86,200)    |

The following benefit payments, which reflect expected future service, are expected to be paid:

|             | Pension plan | Postretirement plan |
|-------------|--------------|---------------------|
| 2013        | \$ 2,729,923 | 249,499             |
| 2014        | 2,700,839    | 312,223             |
| 2015        | 2,911,494    | 367,832             |
| 2016        | 2,717,949    | 420,984             |
| 2017        | 2,371,078    | 497,453             |
| 2018 – 2022 | 10,530,074   | 3,468,188           |

**(b) 401(k) Plan**

NYISO has a 401(k) Retirement and Savings Plan open to all nontemporary employees. This plan provides for employee contributions up to specified limits. NYISO matches 100% of the first 3% of employee contributions, and 50% of the next 2% of employee contributions. Beginning December 1, 2009, NYISO also contributes funds to employee 401(k) plan accounts equivalent to defined benefit accruals formerly earned in the pension plan.

Employees are immediately vested in NYISO's matching contributions and become vested in other employer contributions after three years of credited service. The total NYISO contributions to the 401(k) plan were \$4,729,255 and \$4,306,383 for 2012 and 2011, respectively.

**(c) Long-Term Incentive Plan**

NYISO's Long-Term Incentive Plan provides certain members of senior management with deferred compensation benefits. Benefits are based upon the achievement of three-year performance goals established by the Board of Directors, with participants becoming fully vested and distributions payable for these deferred amounts after the completion of the audited financial statements for the third year. Beginning with the long-term incentive cycle for the period January 1, 2010 through December 31, 2012, benefits will be paid in equal installments over three years following the completion of the three – year cycle. Accrued Long-Term Incentive Plan benefits included in Other Noncurrent Liabilities at December 31, 2012 and 2011, were \$3,008,179 and \$2,028,543, respectively. The short-term portion of such liability, included in Other Current Liabilities, at December 31, 2012 and 2011, was \$1,692,871 and \$0, respectively.

**(9) Lease and Other Commitments**

**(a) Operating Leases**

During 2008, NYISO entered into obligations under two operating lease agreements for the use of computer hardware. Expenses related to these leases totaled \$0 and \$2,946,450 in 2012 and 2011, respectively. The NYISO has no remaining obligation with respect to these leases.

**(b) Other Commitments**

On July 8, 2005, NYISO purchased an office building to relocate NYISO's alternate control center and to consolidate employees located in leased facilities. In connection with the purchase, management entered into a Payment in Lieu of Taxes (PILOT) Agreement with the Rensselaer County Industrial Development Agency (RCIDA) to achieve certain benefits. Per the terms of this agreement, NYISO is required to make annual payments of approximately \$175,000 for the first 10 years. The agreement is cancelable at the discretion of NYISO.

**(10) Working Capital Reserve**

At December 31, 2012 and 2011, the working capital reserve consisted of:

|  | <b>2012</b>   | <b>2011</b> |
|--|---------------|-------------|
| Market participant contributions through Rate Schedule 1 | \$ 33,000,000 | 33,000,000  |
| Interest on market participant contributions             | 14,603        | 25,562      |
| Total  | \$ 33,014,603 | 33,025,562  |

# (11) Deferred Revenue

Deferred revenue at December 31, 2012 and 2011, consisted of the following:

|   | <u>2012</u>         | <u>2011</u>      |
|---|---------------------|------------------|
| Advance payments received on planning studies                   | \$ 2,967,811        | 2,960,015        |
| Funds received for the enhancement of surveillance capabilities | 966,914             | —                |
| Governance participation fees                                   | 423,400             | 413,000          |
| Total   | <u>\$ 4,358,125</u> | <u>3,373,015</u> |

During 2012, NYISO received funds of \$1.0 million from FERC for the purpose of enhancing NYISO's surveillance capabilities. As of December 31, 2012, \$966,914 is recorded as deferred revenue.

# (12) Regulatory Liabilities

At December 31, 2012 and 2011, NYISO recorded the following amounts as regulatory liabilities:

|   | <u>2012</u>         | <u>2011</u>      |
|---|---------------------|------------------|
| Funding for deferred charges                    | \$ 6,578,991        | 6,235,818        |
| Rate Schedule 1 underspending                   | 681,649             | 1,761,641        |
| Voltage support service (reactive power) market | 571,708             | 817,419          |
| Total   | 7,832,348           | 8,814,878        |
| Less current portion                            | (1,253,357)         | (2,579,060)      |
| Long-term portion                               | <u>\$ 6,578,991</u> | <u>6,235,818</u> |

NYISO recovers its revenues through a surcharge assessed to market participants via Rate Schedule 1 of the OATT and Services Tariff. To the extent that transactional volumes billed under Rate Schedule 1 exceed the amount expected when the Rate Schedule 1 surcharge is established, NYISO reflects a regulatory liability for the overcollection amounts. Additionally, to the extent that NYISO's spending does not exceed the annual Rate Schedule 1 revenue requirement, a regulatory liability is also established for the underspending amounts.

In order to maintain acceptable transmission voltages on the New York State transmission system, certain market participants within the New York Control Area produce or absorb voltage support service (reactive power). Payments to market participants supplying voltage support service and recoveries from other market participants are assessed via Rate Schedule 2 of the OATT and Services Tariff. Differences between the timing of recoveries and payments for voltage support service that result in undercollections are reflected as regulatory assets or liabilities. At December 31, 2012 and 2011, respectively, NYISO recognized a regulatory liability of \$571,708 and \$817,419, related to such timing differences.

# (13) Commitments and Contingencies

NYISO is routinely involved in regulatory actions. In the opinion of management, none of these matters will have a material adverse effect on the financial position, results of operations, or liquidity of NYISO.

**(14) Smart Grid Investment Grant**

On October 27, 2009, the U.S. Department of Energy (DOE) announced that New York State will receive \$37.8 million (the SGIG Award) in federal stimulus funding to deploy advanced metering, new customer service enhancements and grid automation. As the prime recipient of New York's smart grid stimulus application, NYISO is responsible for administering the overall project on behalf of itself and the New York State transmission owners (NYTOs). NYISO is eligible to receive reimbursement of \$15.0 million and the NYTOs are eligible to receive reimbursement of \$22.8 million from DOE, which is 50% of the total project costs. The NYISO's agreement with DOE was executed on May 5, 2010 and the project commenced on July 1, 2010 and is scheduled to end on June 30, 2013. NYISO has a separate agreement with the NYTOs which specifies the portion of the total SGIG Award for which each party is eligible. Consistent with the requirements of the DOE agreement, in order to receive its respective portion of the SGIG Award, each party must expend a matching amount. Under the NYISO agreement with the NYTOs, NYISO's obligation to reimburse the NYTOs is only for the amount the NYISO receives from DOE in respect of the NYTOs request for reimbursement. NYISO and the NYTOs' are eligible to receive reimbursement for expenditures incurred from August 6, 2009.

As of December 31, 2012 and 2011, \$15.3 million and \$3.7 million, respectively, is recognized in NYISO's Statements of Activities in Grant revenue, which represents 50% reimbursement from DOE of NYISO's and the NYTO's incurred allowable cost during these respective years. Recorded in NYISO's Statements of Activities is the NYTO's 50% share of incurred allowable costs, as of December 31, 2012 and 2011, \$10.1 million and \$0.6 million, respectively, is classified as Grant expenses – New York Transmission Owners. As of December 31, 2012 and 2011, \$1.3 million and \$0.8 million, respectively, is recorded in NYISO's Statements of Financial Position included as Accounts receivable – net.

**(15) Eastern Interconnection Planning Collaborative Grant**

On December 18, 2009, the DOE announced that the Eastern Interconnection Planning Collaborative (EIPC) would receive \$16.0 million (the EIPC Award) in federal stimulus funding to promote collaborative long-term analysis and planning for the Eastern electricity interconnection, which will help states, utilities, grid operators, and others prepare for future growth in energy demand, renewable energy sources, and Smart Grid technologies. As the prime recipient of the EIPC Award, PJM Interconnection, L.L.C. (PJM), is responsible for administering the overall project on behalf of itself and seven other "Participating Principal Investigators," including the NYISO. The agreement with DOE for the EIPC Award was executed on July 19, 2010 and the project obligations became effective on July 16, 2010. NYISO has a separate agreement with PJM and the other Participating Principal Investigators (the EIPC Agreement) which specifies the parties' obligations under the EIPC Award. Consistent with the requirements of the DOE agreement, NYISO is eligible to receive reimbursement of \$0.9 million from DOE for expenditures incurred from March 1, 2010. Under the PJM agreement with the Participating Principal Investigators, PJM's obligation to reimburse the NYISO is only for the amount that PJM receives from DOE in respect of NYISO's request for reimbursement.

For both the years ended December 31, 2012 and 2011, NYISO recognized \$0.2 million in NYISO's Statements of Activities as Grant revenue.

**(16) Subsequent Events**

NYISO considers events and transactions that occur after the balance sheet date, but before the financial statements are issued, to provide additional evidence relative to certain estimates or to identify matters that require additional disclosure. These financial statements were available to be issued on March 15, 2013 and subsequent events have been evaluated through that date.





## Memorial Tribute to Wayne M. Bailey

In 2012, the NYISO lost a talented and tireless contributor to the pursuit of excellence with the passing of Wayne M. Bailey in 2012.

Mr. Bailey came to the NYISO in June 2000 as a project coordinator. He subsequently worked as the Manager of Strategic Planning, Manager of Enterprise and Risk Management, and Director of Compliance and Enterprise Risk Management.

In January 2009, he was named as Vice President - Compliance & Enterprise Risk and Chief Compliance Officer. That position evolved into Vice President – Enterprise and Customer Services.

Among his many achievements at the NYISO, Mr. Bailey led the development and implementation of our enterprise-wide Compliance and Risk Management Program, which was recognized by the prestigious American Productivity and Quality Consortium as one of five “best practice” programs in the country.

A native of Troy, NY, Mr. Bailey graduated in 1983 from Georgetown University School of Foreign Services, Washington, D.C., with a Bachelor of Science degree. In 1988, he received a Master of Science degree from the Defense Intelligence College in Washington, D.C.

After graduating from Georgetown, Mr. Bailey joined the U.S. Army and worked in military intelligence. He rose to the rank of captain before completing his military service.

He contributed much in all aspects of his personal and professional life, and he is very missed by his friends and colleagues at the NYISO.

## THE NYISO AT A GLANCE

The New York Independent System Operator (NYISO) is a not-for-profit organization responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.

The NYISO is governed by an independent Board of Directors and a committee structure comprised of a diverse array of stakeholder representatives. It is subject to the oversight of the Federal Energy Regulatory Commission (FERC) and regulated in certain aspects by the New York State Public Service Commission (NYSPSC). NYISO operations are also overseen by electric system reliability regulators, including the North American Electric Reliability Corporation (NERC), Northeast Power Coordinating Council (NPCC), and the New York State Reliability Council (NYSRC).

The members of the NYISO's 10-member Board of Directors have backgrounds in electricity systems, finance, academia, information technology, communications, and public service. The members of the Board, as well as all employees, have no business, financial, operating, or other direct relationship to any market participant or stakeholder.

The NYISO does not own power plants or transmission lines. The NYISO's independence means that its actions and decisions are not based on profit motives, but on how best to enhance the

reliability and efficiency of the power system, and safeguard the transparency and fairness of the markets.

The mission of the NYISO, in collaboration with its stakeholders, is to serve the public interest and provide benefit to consumers by:

- *Maintaining and enhancing regional reliability*
- *Operating open, fair and competitive wholesale electricity markets*
- *Planning the power system for the future*
- *Providing factual information to policy makers, stakeholders and investors in the power system*

The NYISO manages the efficient flow of power on more than 11,000 circuit-miles of electric transmission lines on a continuous basis, 24 hours-a-day, seven days-a-week. As the administrator of the competitive wholesale markets, the NYISO conducts auctions that match the retail electric service companies looking to purchase power and the suppliers offering to sell it.

In addition, the NYISO's comprehensive planning process assesses New York's electricity needs and evaluates the ability of proposed power facilities and other options to meet those needs. This planning process involves stakeholders, regulators, public officials, consumer representatives, and energy experts who provide vital information and input from a variety of viewpoints.

2012 Annual Report  
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