

# Annual Report of the Consumer Interest Liaison


**EMPOWERING  
CONSUMERS**




**NYISO**

New York Independent System Operator

*January 2012*



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*
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## MESSAGE FROM THE CONSUMER INTEREST LIAISON

The genesis of this report is the work that the NYISO initiated in response to *Order 719* of the Federal Energy Regulatory Commission (FERC), which recommended — among other things — an improvement in “responsiveness to customers and stakeholders and ultimately the consumers who benefit from and pay for electricity services”. Creation of a Consumer Interest Liaison was among the several initiatives undertaken by the NYISO. The NYISO’s 2011 Business Plan calls for the development of an annual consumer report based on the State of the Market Report, Power Trends and the Broader Regional Market (BRM) initiatives.

Among the major responsibilities of the NYISO is maintenance of the reliability of the state’s electric grid and operation of open, fair and competitive wholesale electricity markets. Virtually everything the NYISO does in carrying out these objectives affects consumers. This is reflected in the NYISO’s Mission Statement, which explicitly states that its mission, in addition to serving “the public interest,” is to “provide benefit to consumers.”

The purpose of the Annual Report of the Consumer Interest Liaison will be to provide a summary of the major initiatives taken by the NYISO over the past year. Since my appointment as Consumer Interest Liaison commenced in the final quarter of 2011, this initial iteration of the annual consumer report is more limited in scope than future reports will be. As our efforts proceed, a more expansive and comprehensive report can be anticipated for 2012.

Tariq N. Niazi  
*Consumer Interest Liaison*  
*New York Independent System Operator*  
January 2012



## INTRODUCTION

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for administering New York's competitive wholesale electricity markets and operating the state's bulk electricity grid. Although the NYISO does not own power plants or transmission lines, it plays a central role in ensuring the reliability and efficiency of the power system, and safeguarding the transparency and fairness of the markets. The NYISO manages the reliable flow of power on 11,000-plus miles of electric transmission lines on a continuous basis, 24 hours-a-day, seven days-a-week. To operate this system efficiently, the NYISO conducts auctions that bring together load serving entities (LSEs) looking to purchase power and the suppliers offering to sell it. Ultimately, the objective is to operate the wholesale energy market in a least-cost, reliable and efficient manner to serve the public interest and provide benefit to consumers.

The restructuring of New York State's electric utility industry began with a clear consumer focus. As the independent grid operator created as a result of state and federal restructuring policies, the NYISO plays a central role in the new system. The NYISO Board of Directors has stated "(w)e are acutely aware that New York's restructured electricity markets were conceived and implemented, among other reasons, to bring value to electricity consumers..."

As part of its evolving array of responsibilities, the NYISO undertook several initiatives expressly intended to foster and enhance the voice of end-use consumers, improve education and outreach and to increase the transparency of NYISO processes and actions. The NYISO's Mission Statement was amended to specifically reference that the NYISO is to provide benefit to consumers. A Consumer Advisory Council was established to provide strategic guidance to the Board of Directors. The position of Consumer Interest Liaison was created to serve as a key point of contact for consumer interests and conduct impact analysis of NYISO wholesale market initiatives. This document, the first annual report of the NYISO Consumer Interest Liaison, summarizes the initial developments in the NYISO's enhanced focus on consumer-related issues.





## GOVERNANCE

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Shared governance, featuring an independent Board of Directors and stakeholder committees, has been a fundamental element of the NYISO's evolution since its inception. It provides a forum for consideration of diverse points of views in the development of policies, protocols and procedures for grid operation, market design and system planning.

Incorporated as a 501(c) 3 New York not-for-profit company, the NYISO is governed by a 10-member independent Board of Directors. While the Board has ultimate decision-making authority, stakeholders play a significant role via the shared governance process.

The NYISO Board is a diverse body comprised of members with a wide array of backgrounds including the electric power industry, finance, academics, technology, communications, public policy, consumer advocacy, environmental affairs, and the law. The Board is required by the NYISO's federally approved tariffs to be independent, meaning its members may have no business, financial, operating, or other direct relationship to any market participant.

NYISO stakeholders participate in the governance of the NYISO through stakeholder committees. 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 a forum where issues regarding the administration of the markets, the operation of the New York's bulk power system, and future system planning are discussed, debated, and voted on. In 2011, NYISO conducted 250 meetings, involving monthly sessions of the major committees and frequent meetings of sub-committees, task forces, and working groups. To view the current schedule of meetings please visit the Committee Calendar page of the NYISO's public website, [www.nyiso.com](http://www.nyiso.com).

The committees carry out their 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 vacancies,*

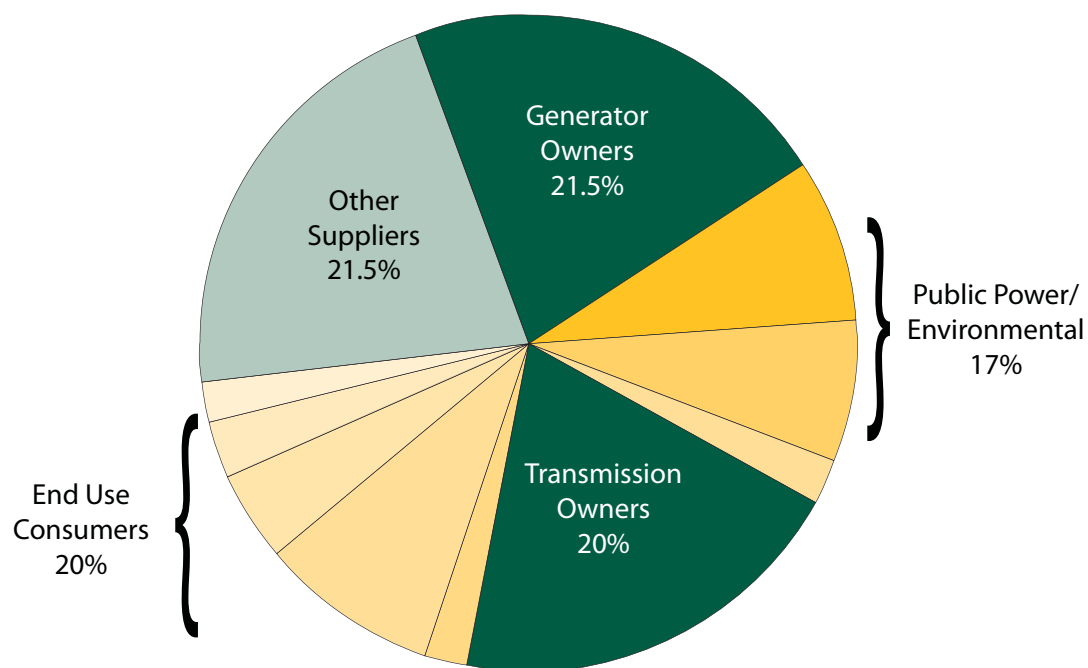
- ◆ *developing and adopting technical guidelines for operation of the bulk power system,*
- ◆ *developing and adopting enhancements in market design, and*
- ◆ *developing and reviewing system planning reports.*

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.

Voting in the stakeholder committees is conducted by representative sector, which includes sectors for transmission owners, generation owners, other suppliers, end-use consumers, and public policy/ environmental parties. Each stakeholder's vote in a committee is equal to a percentage of its sector's allocated voting shares. Actions by the committees require a 58% vote of approval to pass. The voting shares are allocated among the sectors and subsectors as follows:

- ◆ *Generation Owners - 21.5%*
- ◆ *Other Suppliers - 21.5%*
- ◆ *Transmission Owners - 20.0%*
- ◆ *End Use Consumer - 20.0%*
  - Large Consumer (9.0)
  - Large Consumer – Government Agencies (2.0)
  - Small Consumer (4.5)
  - Government - Statewide Consumer Advocate (2.7)
  - Government - Small Consumer & Retail Aggregators (1.8)
- ◆ *Public Power and Environmental Parties - 17.0%*
  - State Power Authorities (8)
  - Municipal and Cooperatively Owned Electric Systems (7)
  - Environmental Parties (2)

Figure 1. NYISO Shared Governance Voting Sectors



## MARKETS

The New York electricity markets consist of capacity, energy and ancillary services. Each component operates in concert with the other to match system reliability with the market requirements.

- ◆ *The Capacity Market ensures sufficient resources to meet peak demand plus reserve requirements*
- ◆ *The Energy Market maintains the real-time balance of supply and demand*
- ◆ *The Ancillary Services Market provides support to the capacity and energy markets*

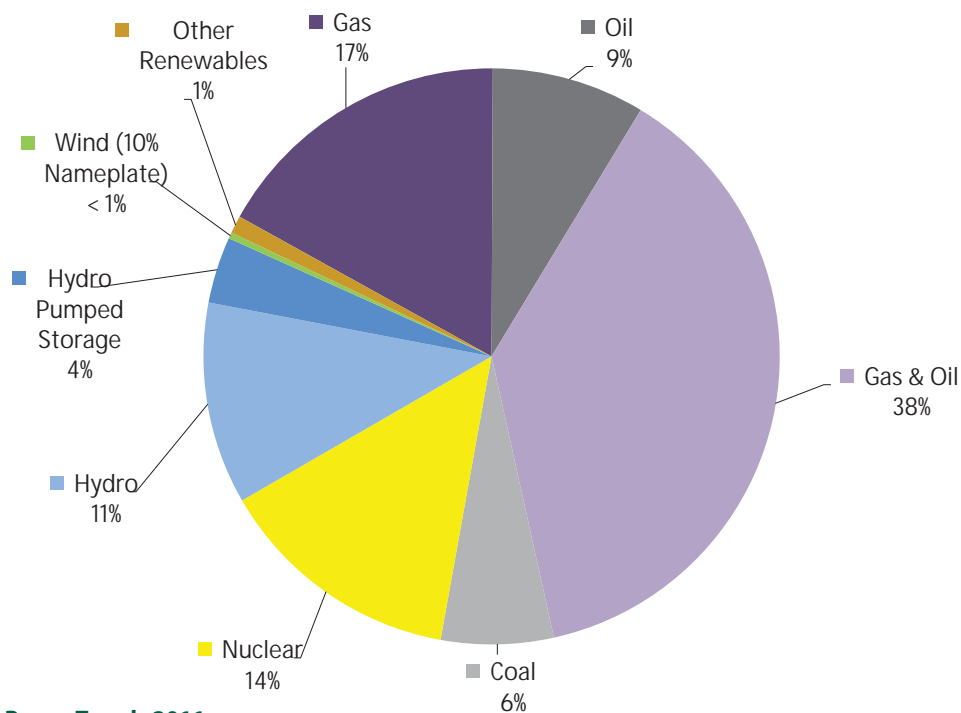


The Energy Market is the largest component of the New York Power System. It is made up of a Day Ahead Market and a Real Time Market. Ninety-eight percent (98%) of the energy transacted in New York is purchased through the Day Ahead Market. Fifty percent (50%) of those transactions are contracts arranged outside of NYISO markets between consumers and suppliers.

### Wholesale Electricity Prices

Not all electricity is produced in the same manner. The cost to generate electricity is dependent to a large extent on the type of fuel the generation plant uses to operate. Statewide, New York has a relatively diverse fuel mix, particularly as compared to many other states served predominately by a single source of power generation. (See Figure 2.)

Figure 2. New York State's Generation Fuel Mix



SOURCE: Power Trends 2011

Fuel cost is reflected in the price of energy. This is seen over time by comparing the cost of natural gas and electricity price between 2000 – 2010. (See Figure 3.)

Figure 3. Electrical Energy and Natural Gas Price Trends



**SOURCE: Power Trends 2011**

Pricing energy in a competitive market by using a single market clearing price incentivizes suppliers to offer their supply at prices close to their own cost to produce power. For most suppliers, this results in an offer that reflects their fuel costs. The continuing close correlation of energy prices with fuel prices in New York also demonstrates the competitiveness of NYISO's markets.

Price convergence between the Day Ahead and Real Time energy markets is desirable because it promotes the efficient commitment of generating resources and scheduling of fuel, which ultimately lowers the generators' operating costs. Market behavior is analyzed quarterly by New York's Market Monitoring Unit (MMU) Potomac Economics, Ltd. and presented to the stakeholders. The MMU also

presents an annual State of the Market report to stakeholders with recommendations for market design changes to enhance the efficiency of the NYISO markets. To review the full 2010 State of the Market report, please use the following link.

[http://www.nyiso.com/public/webdocs/documents/market\\_advisor\\_reports/2010/2010Report\\_NYISO\\_2011-08-02\\_NMB.pdf](http://www.nyiso.com/public/webdocs/documents/market_advisor_reports/2010/2010Report_NYISO_2011-08-02_NMB.pdf)

### **Investment**


Electricity is available on demand. Because the NYISO dispatches less expensive electricity first and, as a general matter, less expensive electricity is available from resources, including large hydro facilities, located in the western part of the state, transmission facilities are necessary to move this power to the more densely populated downstate areas like New York City. Operating the transmission system in the most reliable and efficient manner to meet consumer demand is a high priority for the NYISO.

Reliability affects the price and the cost of production of electricity. Correct price signals facilitate efficient future energy contracts between generation suppliers and end users. This promotes market stability and encourages lower costs.

A reliable system also steers generation and transmission investment as well as retirement decisions. Prices established through efficiently designed markets provide good indicators for investors interested in building energy projects in New York. Relying on private investment shifts the risks and costs of project management from New York's consumers to the investors.

### **Innovation**

The NYISO is pursuing an expanding and increasingly important planning function to assess New York's electricity needs and evaluate the ability of planned new power facilities and other resource options such as demand response and energy efficiency to meet those needs. Sound planning is particularly important during peak conditions, when demand is high and the need for energy is great. Under these circumstances, reliance on demand response can be essential to maintain a reliable system. Modest reductions in consumption by end users during high-price periods can significantly reduce the costs of committing and dispatching generation to satisfy system needs. End user participation in demand response programs, such as retail load reduction, can lower the cost of energy.



The NYISO is teaming up with neighboring markets to improve the efficiency of operating the electrical system. Information can be shared with neighboring ISO's/RTOs to improve the energy transfer between neighboring ISOs. This approach is intended to utilize the region's collective assets to address constraints across multiple states. This results in lower costs to the consumers and provides a more consistent price across the region. For more information, see the link to Broader Regional Markets.

[http://www.nyiso.com/public/energy\\_future/issues\\_trends/broader/index.jsp](http://www.nyiso.com/public/energy_future/issues_trends/broader/index.jsp)

## EMPOWERING CONSUMERS

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### Consumer Interest Liaison

The Consumer Interest Liaison position was established by the NYISO to give consumers more of a presence in the New York Energy markets by developing and managing consumer-focused activities. The responsibilities of the Consumer Interest Liaison include:

- ◆ *Working closely with and solicit input from the stakeholder community to understand and prioritize relevant issues and activities*
- ◆ *Tracking, interpret, research, analyze and summarize the impacts of market rule changes as they pertain to consumer impacts*
- ◆ *Working within tariff guidelines to administer requests from the consumer community*
- ◆ *Identifying internal and external resource needs to provide technical support to the End Use sector*
- ◆ *Developing an annual consumer report based on the State of the Market report, Power Trends, Broader Regional Markets, and other initiatives*
- ◆ *Establishing a broader outreach marketing plan to include website presence, presentations, outreach forums and educational seminars*
- ◆ *Working with internal staff to develop a website specifically designated for the purpose of consumer interests and ensure related meeting notices, agendas, action items, events are regularly updated on the site*
- ◆ *Benchmarking consumer activities in other ISOs and other similar companies*



- ◆ *Networking with liaisons in other states and regions to respond effectively to issues regarding the various markets and their transactions*

### Consumer Impact Analysis

The Consumer Interest Liaison is tasked to keep the consumer informed and to aid in the understanding of how new developments will impact the energy and capacity markets. To carry out this responsibility, the NYISO will conduct an impact analysis (IA) when implementing a major new project and review the impacts on reliability, cost\market efficiencies, environment\new technology, and transparency. The study areas for each of these impact evaluations are described below.



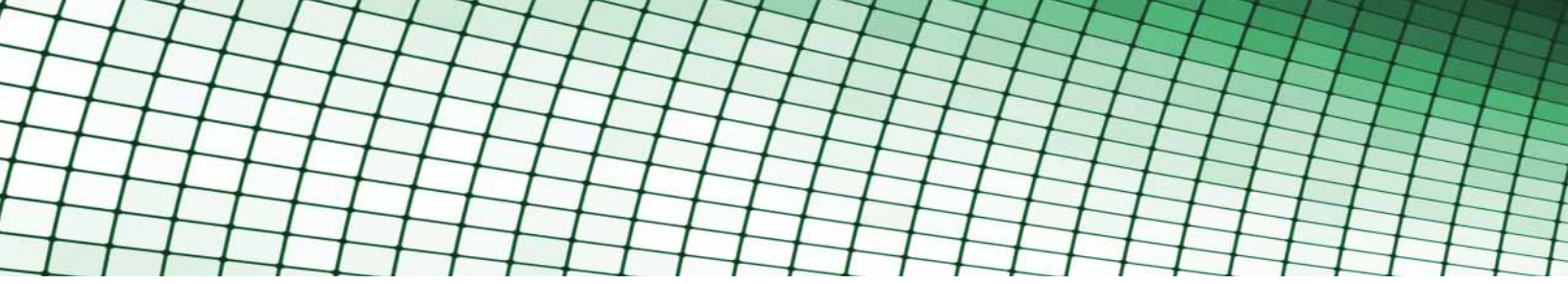
The impact on Reliability analyzes how a new project improves the reliability of the current system. Naturally, a project would not be implemented if it caused reliability issues or concerns.

The impact on Cost Savings/Market Efficiency analyzes the overall costs and benefits of implementing a project. It also reviews whether the project improves market operations and produces proper price signals to help spur investment.

The impact on Market Transparency assesses the extent to which the project will impact the transparency and clarity of market rules.

The impact on the Environment reviews how the project may affect the environment, focusing primarily on emission levels. The review also considers the extent to which the project relates to New York State energy and environmental standards such as "45 X 15" Clean Energy Strategy and the Regional Greenhouse Gas Initiative (RGGI).

The first Impact Analysis was developed in October 2011 for the Coordinated Transaction Scheduling (CTS) concept between New York and ISO-New England (NE). CTS is being undertaken in conjunction



with the Broader Regional Markets (BRM) initiative, which tasked the NYISO and its neighboring ISOs to develop long-term scheduling and pricing solutions. . NY and NE currently schedule energy at their common interfaces independently via separate market evaluations. This has resulted in many hours of inefficient schedules where power either flows uneconomically (from the more expensive to the less expensive region) or at volumes that do not fully utilize the interfaces' transmission capability. In addition, scheduling between the two regions currently occurs only once per hour. This has resulted in both an under-utilization of dispatchable energy providers and a risk for transacting Market Participants that the settlement prices will differ, to their disadvantage, from the expected prices which determine each hour's schedule.

Ideally, power should flow from the region with lower costs to the region with higher costs. However, power flows in the wrong direction at the primary transmission interface between the two regions for more than 4,000 hours per year. Additionally, during the remaining hours there is abundant available capacity to transfer additional power from the lower-cost region to the higher cost region. Production costs would be lower if the existing transmission interconnections were scheduled more efficiently.

To address these issues, NYISO and ISO-NE have jointly developed a set of market rules to provide for more efficient and more frequent transaction scheduling at the NYISO – ISO-NE border.

New York and NE stakeholders agreed to amend their tariffs to implement CTS to improve the energy transfers between the NY and NE energy markets. The NYISO amendments will replace the NYISO's hourly independent economic evaluation of cross-border transaction bids and offers at CTS enabled proxy bus with an evaluation of the joint systems occurring every fifteen minutes. This evaluation will incorporate both NYISO and ISO-NE markets and system information and produce a single set of transaction schedules for both regions every fifteen minutes. The evaluation process will include a new "interface bid" to be used by Market Participants proposing to move power from one region to the other. Market Participants will simultaneously bid to buy and offer to sell energy on both sides of the interface. The transaction will be scheduled if the difference in prices between the two regions is greater than the bid's dollar value. CTS is planned for implementation in the fourth quarter of 2013.

The CTS Impact Analysis looked at the following four quadrants.


- ◆ **Cost impact and market efficiencies:** *The impact on cost was the highlight of the analysis because of the considerable consumer savings. The estimated annual consumer savings for both NYISO and ISO-NE would be up to \$139 million, with approximately \$66 million accruing to New York consumers.*
- ◆ **Reliability:** *Based upon the review of NYISO system planners and system operations experts, CTS would pose no negative impact to reliability. In fact, check out failures would decrease, as CTS would improve the consistency between planned and actual flows on the interface.*
- ◆ **Environment/New Technology:** *Based upon the review of NYISO system planners and system operations experts, CTS would provide a more efficient dispatch across the NY-NE interface by moving power from the lower priced region to the higher priced region more frequently. This will provide a wider range of resources/loads over which to absorb variations in wind as well as other generation.*
- ◆ **Transparency:** *Finally, CTS will lead to greater transparency by improving the economic direction of the flow schedule and consolidating the rules and procedures between the two ISOs. It sends the right price signals to Market Participants bidding into the system.*

A list of projects that will receive an Impact Analysis in 2012 is currently being developed and discussed with stakeholders.

### Consumer Advisory Council

The NYISO's Consumer Advisory Council was established by the NYISO Board of Directors to provide a forum for the exchange of information between the NYISO and electricity consumers, with a focus on information sharing, outreach and education.

The independent panel is comprised of 15 members representing a broad spectrum of academic, environmental, industry and consumer interest experts from across the nation. At the initial meeting, council members had the opportunity to meet NYISO staff and board members; learn about NYISO governance, operations, markets, regulation and related matters; and also meet stakeholder representatives. The council developed its own internal organization and detailed long-term work plan as it worked to deepen the members' knowledge and understanding of the NYISO and New York's energy markets.



The council held its inaugural meeting in August in Albany, NY. It formally met for the second time in November in conjunction with the NYISO / ISO-NE Energy Conference, *Energy Synergy: Competition and Innovation*, conducted in New York City. At its November meeting, the council finalized its organizational and leadership structure, confirming James Adams of Cornell and Frank Felder of Rutgers as co-chairs, establishing three working subcommittees and naming their respective Co-Chairs: Affordability, Technology and Markets (Gerald Stokes and Carl Imhoff); Consumer Education (David Brown and Irene Leech), and Policy and Regulatory (Frank Felder and Mike Gerrard).

### **ISO/RTO Metrics Reports**

In December 2010, the NYISO and the six other ISO/RTOs regulated by FERC filed a comprehensive metrics report as part of the FERC's efforts to develop standardized measures to track the performance of grid operations and power markets. The report included 50 separate metrics providing information on electric system reliability, wholesale electricity market benefits and organizational effectiveness.

An updated edition, the 2011 ISO/RTO Metrics Report was submitted to the FERC in August 2011. The new 355-page report presents data showing that the ISO/RTO balancing authority areas are functioning reliably, and that wholesale electricity markets are operating efficiently, advancing public policy energy objectives and enabling demand response and energy efficiency.

The metrics initiative is also helping the NYISO sustain and enhance transparency, identify strengths and gaps in order to address challenges and maintain and bolster collaborative efforts with stakeholders, regulators and policymakers. A copy of the *2011 ISO/RTO Metric Report* can be found among the 2011 FERC filings in the Legal and Regulatory section of the Document Library on NYISO's public website, [www.nyiso.com](http://www.nyiso.com).



## FOR MORE INFORMATION

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In addition to this report from the Consumer Interest Liaison and other documents referenced in this report, the NYISO issues a number of publications related to the power grid and electricity markets. All are available for download from the NYISO website, [www.nyiso.com](http://www.nyiso.com).

The NYISO publications include *Power Trends*, an annual analysis of the forces and factors influencing the future of New York's bulk electricity grid and its competitive wholesale electricity markets. The NYISO's *Annual Report*, includes its annual financial statement, a listing of market participants, and a summary of annual activities and accomplishments. Each year, the NYISO reviews and renews its five-year Strategic Plan, which outlines the NYISO's vision, mission, core values, and guiding principles, as well identifies specific goals and initiatives.

The *Load & Capacity Data Report* (also known as the "Gold Book") is published annually and presents New York Control Area system, transmission and generation data. It also includes: forecasts of peak demand, energy requirements, energy efficiency, and demand response; existing and proposed resource capacity; and existing and proposed transmission facilities.

As part of its Comprehensive System Planning Process, the NYISO regularly publishes its *Reliability Needs Assessment*, *Comprehensive Reliability Plan*, and *Congestion Assessment and Resource Integration Study*.

Various governmental agencies and electric system organizations provide information useful to the electricity consumer, including:

- ◆ *Division of Consumer Protection, New York State Department of State* <http://www.dos.ny.gov/consumerprotection>
- ◆ *New York State Public Service Commission (PSC)* <http://www.dps.state.ny.us>
- ◆ *New York State Energy Research and Development Authority (NYSERDA)* <http://nyserda.org>
- ◆ *Federal Energy Regulatory Commission (FERC)* <http://www.ferc.gov>
- ◆ *New York State Reliability Council (NYSRC)* <http://www.nysrc.org>
- ◆ *North American Electricity Reliability Corporation (NERC)* <http://www.nerc.com>
- ◆ *Northeast Power Coordinating Council (NPCC)* <https://www.npcc.org>

In addition, consumer-related information is available directly from the electric utilities serving New York State.

## ENDNOTES

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<sup>i</sup>NY PSC, Opinion No. 94-27, Case 94-E-0952 et al., In the Matter of Competitive Opportunities Regarding Electric Service, (December 22, 1994); NY PSC Opinion No. 96-12, Case 94-E-0952, id., “Vision and Goals for the Future Regulatory Regime” (May 20, 1996); *The New York Independent System Operator: A Ten Year Review*; Analysis Group, Dr. Susan F. Tierney (April 12, 2010), p. 20 et seq.

<sup>ii</sup>NYISO Board of Directors Decision on Appeal of the Management Committee – February 24, 2011 Decision; May 26, 2011.

<sup>iii</sup>The NYISO Board is permitted to pursue such change without the approval of the Management Committee pursuant to Section 206 of the Federal Power Act. However, such proposed changes are reviewed by FERC under a more stringent standard. The NYISO Board has only taken such action on a rare number of occasions.

<sup>iv</sup>*2010 State of the Market Report for the New York ISO Markets*, Potomac Economics, July 2011.

<sup>v</sup>Same as above.

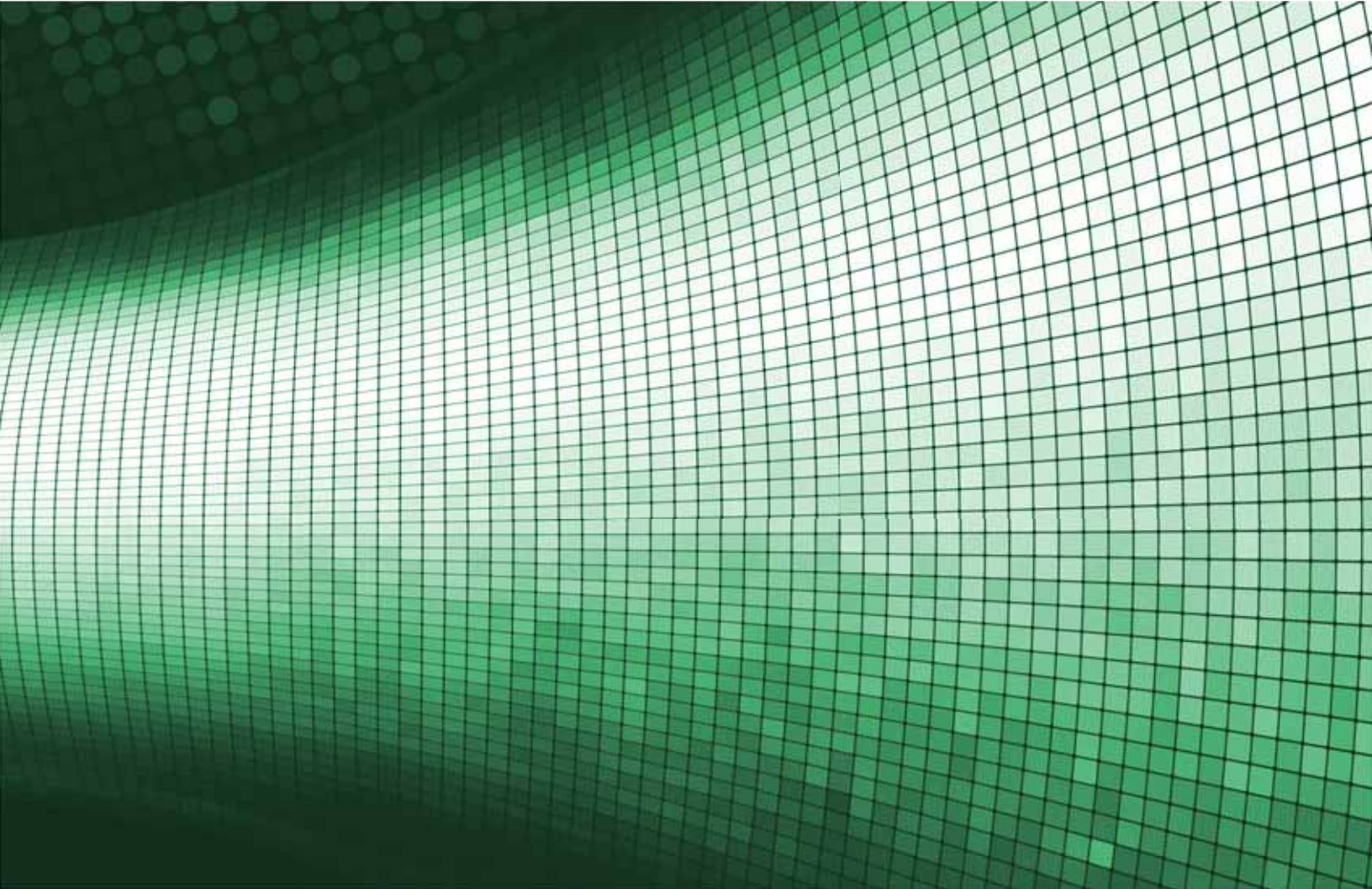
<sup>vi</sup>Same as above.

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