SUSTAINABILITY Annual Report 2010

Generating Sustainability

WORKPLACE COMMUNITY ENVIRONMENT MARKETPLACE OPERATIONS

New York Power Authority
Generating more than electricity

SUSTAINABILITY 2010

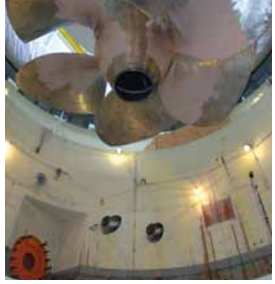
A Tradition of Responsibility

From the Chairman and the President

We are pleased to present the New York Power Authority's first Sustainability Annual Report, which chronicles our efforts and accomplishments in 2010. We kicked off the year with the release of NYPA's Sustainability Action Plan, and this report tracks the progress made over the following 12 months.







A team of NYPA employees invested significant time in developing this initiative, which we call *Generating Sustainability*. And now, everyone at the Power Authority has a clear guide to performing his or her job in a way that lessens our impact on the environment while providing even greater value to New York's economy and its citizens.

The Power Authority has a long history of sustainable practices, starting with its original mission of developing clean, renewable hydropower for the common good. Since then, our responsibilities have expanded to include energy efficiency services and clean energy projects that reduce fossil fuel consumption and the resulting pollution it causes. Creating green jobs and diversifying New York's energy supplies are additional benefits that can be realized from these endeavors.

Here at the Power Authority, we believe that "the three Es" – energy, the environment and economic development – are all intertwined. And, since these are the primary concerns of sustainability, it's only natural that NYPA should commit its resources to the goal of realizing a cleaner, greener, more prosperous New York.

But we can't do it alone. This report has been prepared primarily for NYPA's customers and other stakeholders who are affected by our operations throughout the state. Transparency and responsiveness are as important as recycling and renewable energy, and we welcome your feedback, your engagement and your support as we continue to work together toward a more sustainable future for New York State.

Please email your comments or questions to us at: **GeneratingSustainability@nypa.gov.**

Michael J. Townsend
Chairman

Richard M. Kessel
President & CEO



NYPA's Sustainability Action Plan

Focus Areas

WORKPLACE

- Culture of Sustainability
- Dynamic Work Force
- Green Workspaces
- Health and Safety

NYPA IS COMMITTED to leading by example, cultivating a workplace that respects and encourages diversity, health, safety and active employee engagement in meeting its sustainability goals.

COMMUNITY

- Stakeholder Engagement
- Community Investment
- Public Education and Communication

NYPA IS COMMITTED to working directly with its stakeholders to ensure it is responsive to community needs and continues to act as a good corporate citizen.

ENVIRONMENT

- Carbon Reduction
- Water Management
- Land Management
- Waste Management

NYPA IS COMMITTED to reducing its environmental impact and developing strategies to enhance the resources under its management.

MARKETPLACE

- Demand-Side Management
- Renewable Energy
- Alternative Fuel Transportation
- Clean Energy Procurement
- Economic Development

NYPA IS COMMITTED to promoting economic development in New York State and supporting the maturing clean energy industry through various programs.

OPERATIONS

- Strategic Planning
- Generation and Transmission Reliability
- Generation and Transmission Efficiency
- Clean Energy Demonstrations
- Climate Change Adaptation

NYPA IS COMMITTED to continuing the reliable and efficient operation of its assets and investment in its infrastructure to ensure long-term performance.

OGRESS



NYPA and GRI

In January 2010, the New York Power Authority released its Sustainability Action Plan with the commitment to publish a yearly progress report. This first Sustainability Annual Report follows the Global Reporting Initiative (GRI) Level C guidelines, including those for the Electric Utility sector. GRI is an international network established to help organizations measure and report on their sustainability performance in terms of economic, environmental and social impacts. Details are available at **www.globalreporting.org**.

This annual report covers sustainability activities for all of NYPA's business units and functioning assets in calendar year 2010. The GRI framework, disclosures and indicators were reviewed to determine their materiality and relevance for this publication. Specific GRI indicators are listed on page 25. NYPA expects its stakeholders to utilize the report and offers it in line with its commitment toward transparency in operations. Questions: contact **GeneratingSustainability@nypa.gov**.

January – March

NYPA launches a multi-year sustainability action plan, linking its historic tradition of hydropower stewardship with broader concerns that include environmental, economic and social goals. A statewide 100-megawatt solar initiative is announced, while preparations for two offshore wind projects advance. Fulfilling a commitment made to a Queens community, NYPA ceases operations at its Poletti fossil-fueled power plant.

April – June

A life extension overhaul is completed at the Blenheim-Gilboa project, while a major renovation is announced for NYPA's pump-generating facility in Lewiston. The Niagara Power Vista unveils an exhibit on the history of the neighboring Tuscarora Nation. Two multi-million dollar energy efficiency projects are completed for New York City public housing. NYPA holds its 20th annual purchasing exchange to promote supplier diversity among state agencies and businesses.

July – September

Contracts for low-cost hydropower supporting Western New York companies are extended. An energy discount program for businesses and dairy farms in Northern New York is also continued for another year. NYPA volunteers join Habitat for Humanity in building a "near-zero-energy" home for a low-income family. The Power Authority receives an award for promoting sustainable alternatives for its White Plains commuters.

October – December

A groundbreaking for recreational improvements at Reservoir State Park in Lewiston and an award for rehabilitation work at Robert Moses State Park in Massena reflect commitments made during the relicensing of NYPA's two largest hydro projects. A "ride-and-drive" introduces the most advanced electric vehicles to downstate governmental customers, while the Niagara Frontier Transportation Authority unveils a new NYPA-installed solar power array.

Building a Culture of Sustainability

This first "sustainable year" was an exciting one for the Power Authority. January's formal release of NYPA's Sustainability Action Plan was followed in April with a Green Expo for White Plains employees. Following an earlier survey that revealed that 74 percent of employees rated NYPA at least above average on green efforts, a web-based communications plan moved ahead to reach more than 1,600 employees at eight major sites with one underlying message—Get Involved.

As a result, employee Green Teams have formed at two of NYPA's largest work sites to organize activities and campaigns that range from the informational, such as a green-themed eco-cinema series, to the hands-on, including expanded recycling efforts.

Since a sustainable workplace allows for work/life balance, NYPA expanded its Flex Time policy, a benefit currently used by more than 200 staff members. Long-distance commuters are also assisted with subsidies for mass-transit riders and organized car/vanpools. In fact, the Power Authority in 2010 was again recognized for promoting sustainable alternatives for its commuters.

GREEN BUILDING FEATURES

The White Plains Office is NYPA's first LEED green building, thanks to a variety of clean energy features, including:

- Two solar PV arrays (13.5 kw total)
- A 200-kw fuel cell
- A 30-kw microturbine
- More efficient chillers
- Lighting upgrades
- Window film

Building Skill Levels Through Succession Planning and Comprehensive Training

Like many utilities, NYPA has a mature work force, with about 30 percent of employees eligible to retire in the next five years, and 50 percent in the next 10. To maintain a well-trained work force, a comprehensive succession planning program has been established. NYPA uses a Knowledge-Loss Risk-Assessment Formula to determine those employees at risk of leaving who are critical to NYPA. For about 40 critical positions, the required knowledge sets have been identified, with one-to-three employees selected as potential replacements.

Competing employers, especially in the private sector, pose a challenge as well. About 150 positions, including many technical professionals, have been identified and offered specialized training and professional growth assistance to provide direct career ladders within the organization.

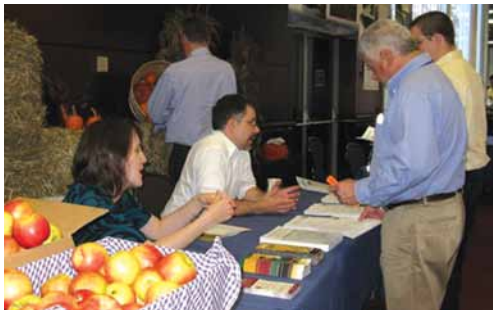
However, there is still the risk that NYPA will lose a significant amount of institutional knowledge over the next few years. One hoped-for answer: a Knowledge Capture Program, where employees are trained to interview those set to retire, and document their knowledge and experience in such a way that it can be utilized by future successors. By the end of 2010, 17 employees had participated in the program, with a dozen more trained to administer it.

Providing career ladders and skill-enhancement opportunities is essential to sustaining a strong work force. Some 95 percent of employees participate in regular performance reviews to receive feedback and outline skill-development plans. The Power Authority also maintains a comprehensive training program for all employees. Through college reimbursement and education assistance programs, as well as in-depth technical and professional development training opportunities, employees are encouraged to maximize their career potential with an ever-increasing range of skill sets.

Working together by promoting diversity and mentoring

The age difference among NYPA employees can span more than 50 years,

RKPLACE



and with that comes generational differences, viewed as assets, rather than obstacles. The Sustainability Action Plan is taking advantage of these realities formally and informally. A new mentoring program, initially filled with 19 pairs of mentors and mentees, facilitates interaction between those of different experience levels, helping develop newer or younger employees' leadership potential with the full support of senior management. Over the years, NYPA's coop and developmental intern programs have exposed college students to the electric utility industry, one more way NYPA employees help foster the next generation of energy professionals.

Less formally, a "Bridging Generations Through Networking" program organizes social activities for employees to encourage meeting and relaxing together by those with different viewpoints and backgrounds who might not normally interact during work hours.

Green Products, Green Offices

Long before NYPA's Sustainability Action Plan was implemented, senior management recognized the need to provide safe, healthy and environmentally friendly workspaces for all employees. In 2006, the Power Authority's administrative office building in White Plains achieved gold status (existing building category) from the U.S. Green Building Council's LEED program; application for recertification, required every five years, will take place in 2011.

Additional green building features are being added to NYPA's White Plains site as well. A complete renovation of the building's fifth floor incorporated recycled-content materials, mobile workspaces that reduce the need for future construction and the resulting demolition debris, along with a number of energy conservation measures. The floor plan is a dramatic change as well, with office spaces configured to provide better access to natural light for all employees working there. [Note: In January 2011, NYPA learned that the fifth floor renovation received a LEED silver rating for commercial interiors, setting a precedent for all future office upgrades.]

NYPA's Work Force (as of December 31, 2010)	Number	Percent of Total
Salaried Employees	966	62%
Employees Covered by Collective Bargaining Agreements	583	38%

NYPA's Safety Performance vs Industry*

Total Recordable Incident Rate

Injuries/Non-Lost Time Rate

Lost Day Rate

Occupational Disease Rate

Occupational Fatalities

*Industry average statistics are from most recent (2008) U.S. Bureau of Labor Statistics for NAICS Code 2211 Electric Power Generation, Transmission and Distribution

The ground floor lobby at the White Plains building has a new green wall, while outside a 200-kilowatt fuel cell was installed to meet about 20 percent of the building's power requirements with emission-free energy. Along with lighting upgrades, these efforts help save almost 200,000 kilowatt-hours a month at the site. This is in addition to two rooftop solar systems and a microturbine already operating there.

By 2011, NYPA expects to finish a new warehouse being built at its Niagara project designed to meet LEED gold standards for new construction.

Encouraging Employee Health, Safety, Welfare

Health and safety are critical to the Power Authority's overall operations, and established policies are administered and enforced for the protection of employees, contractors and the general public at equal levels. Keeping health and safety at the forefront of everyone's consciousness is an ongoing effort. Weekly staff meetings at NYPA facilities always include safety topics such as the proper use of power tools, the safe handling of hazardous materials and effective ways to manage stress at work. In addition to these in-person updates, the employee intranet also contains an extensive amount of related information that can be accessed at any time.

Monitoring of NYPA's already-established safety targets and metrics is being enhanced with third-party-verified safety audits. The first one was completed at the Niagara project in 2010, with plans to conduct similar audits at all facilities in the future.

For 2010, the Power Authority's number of recordable incidents was 22. While already much lower than the industry standard, NYPA has put in place a

2010 Action Item Status Updates

Culture of Sustainability	
Raise employee awareness through workshops, education, communications and contests	Established employee-led Green Teams at two facilities to organize numerous employee awareness activities, developed sustainability site on NYPA intranet and circulated regular e-newsletters to keep employees up to date on sustainability related topics.
Dynamic Work Force	
Enhance the skills and knowledge of our employees through a comprehensive succession planning program	To ensure strong talent development and recruitment, identified mission-critical positions, selected potential successors and provided training on succession planning opportunities.
Expand diversity programs at NYPA that seek to build upon our myriad of backgrounds and skill sets	Created a comprehensive diversity plan, which includes a vision, training and recruitment/retention initiatives for enhanced diversity at NYPA that will be rolled out in 2011; formed employee-led Diversity Council; established mentoring program to match employees with different skill sets and backgrounds.
Green Workspace	
Identify environmentally-friendly substitutes for commonly purchased products	Per Executive Order 4 guidelines, consulted procurement specifications for enhancing environmental attributes of a wide range of goods and services; submitted annual report to Governor's office to track performance.
Develop green guidelines for office renovations, which promote access to natural light, indoor air quality and workplace efficiency	New guidelines for office renovations at the White Plains office have been developed and implemented. These guidelines promote access to natural light, superior air quality and workplace efficiency and the use of maximum possible recycled content in all construction materials and furnishings.
Health and Safety	
Conduct an Industrial Hygiene analysis at all NYPA generating sites with a particular emphasis on noise and indoor air quality	Noise and indoor air quality studies were completed in 2010 at the 500 MW plant and Blenheim-Gilboa.
Establish a safety program for completing Job Safety Analyses (JSA)	The Job Hazard Analysis initiative was launched at the 500 MW plant and Niagara project in an effort to enhance safety performance at the facilities.

series of measures to reduce that number further and to gain a better understanding of why such incidents may occur. Also in 2010, NYPA initiated a major update to its Job Hazard Analyses, which outline on a step-by-step basis the potential hazards involved with particular tasks, ways to mitigate those hazards and actions to take if an accident does occur. While utility work by nature is inherently dangerous, streamlining this process across all facilities is expected to maintain a low injury rate.

New analysis of noise and indoor air quality began at NYPA's 500-Megawatt and Blenheim-Gilboa generating sites in 2010, to identify any areas of concern. These studies will extend to other facilities in 2011.

NYPA has recently developed safety videos for contractors at its Niagara and Flynn generating facilities, detailing precautions everyone should take when on-site. However, safety is not just a concern at the operating facilities: In 2010, two of the Power Authority's recordable incidents occurred in its White Plains office building—a sobering reminder that safe work practices are critical in all types of settings.

Preventive care is equally important for a healthy workplace. NYPA offers staff members free flu shots each year and organizes health fairs offering employees easy access to providers of medical insurance and other services. A safety magazine sent to employees' homes further educates staff members and their families on important health and safety issues. NYPA's Employee Assistance Program, a free, confidential counseling service that can assist with personal, childcare and eldercare issues, is available to staff and their families as well.

Main Training Programs	Duration Hrs	% Employees Complete
Cyber Security Awareness	0.75	95%
Anti-Harassment & Discrimination*	0.5	70%
Workplace & Domestic Violence*	0.5	91%
NYPA Code of Conduct	0.5	98%
FERC Standards of Conduct	0.5	100%
Nine Standards of Critical Infrastructure Planning*	0.25	96%

**100% of security personnel complete this program*

Generating Powerful Partnerships in the Community

In communities across the state, the Power Authority has established relationships that extend NYPA's public-benefit mission to provide low-cost electricity, clean energy services and assistance with economic development. In every region where its facilities are located, the Power Authority and its employees provide a human energy that improves the local quality of life and helps make New York overall a better place to live and work.

Engaging Stakeholders Early and Often

NYPA is actively involved with a wide range of external stakeholders – from local public officials to electricity customers to community-based organizations – and strives to be as transparent and responsive as possible.

Stakeholder engagement became increasingly important during the recent federal relicensing efforts for NYPA's two largest hydroelectric projects, in Northern and Western New York. In each region, community advisory boards were established to ensure stakeholder input on every step of the process and to oversee disbursement of various funding streams for recreational and environmental programs launched under subsequent relicensing agreements. For example, the St. Lawrence River Research and Education Fund has awarded close to $160,000 to projects that will contribute to greater understanding of the St. Lawrence River ecosystem. Its advisory committee consists of members from the St. Regis Mohawk Tribe, the Northern New York Audubon Society and the U.S. Fish and Wildlife Service, among others. NYPA recognizes that including community members in the project selection process ensures that dedicated funding specifically targets initiatives the community itself prioritizes.

In 2010, the Power Authority took this commitment to its stakeholders further, with the rollout of a new environmental justice agenda designed to serve those neighborhoods, often lower-income communities, that bear more than their fair share of economic and environmental impacts resulting from policy decisions frequently made without their input. NYPA's Environmental Justice Liaison is reaching out to these communities to encourage greater collaboration with and increased participation in NYPA activities, particularly any Requests for Proposals for goods, services and community support programs.

Supporting Communities In a Variety of Ways

With facilities in communities across New York State, NYPA strives to be a good neighbor on a local basis. The Power Authority has an official policy regarding financial support to not-for-profit organizations and state or local government entities that requires a clear link to NYPA's mission. Religious

KEY NYPA STAKEHOLDERS

- NYPA employees and retirees
- Labor unions
- Customers
- Local communities
- Federal and state legislators and other public officials
- Federal and state regulators
- Non-governmental organizations
- Suppliers and others that do business with NYPA
- Other New York and regional utilities
- Industry trade organizations
- New York State public-at-large

and/or political organizations are not eligible for such support.

In conjunction with NYPA's overall community support policy are more specific funding streams established in connection with licensing and construction activities in particular regions. For example, $9 million per year has been designated for the establishment of the Niagara River Greenway—a network of parks, rivers, access paths and waterfront trails throughout Niagara and Erie counties. Stemming from the relicensing of the Niagara Power Project, the funds are administered by four standing committees representing state agencies, local municipalities and environmental groups. In 2010, more than 20 projects received funding that will improve waterfront access, strengthen the local ecology and enhance recreational opportunities along the Niagara River Greenway.

Additionally, in 2010 NYPA began an accelerated schedule of payments to help advance Buffalo's ambitious Canal Side Project. This redevelopment initiative will transform downtown Buffalo's long-dormant canal district into a bustling mixed-use tourism and cultural magnet.

On a broader scale, NYPA has assisted its governmental customers and the state's municipal electric and rural cooperative systems with a Tree Power program that benefits many local communities. Local residents who purchased a tree for planting from their local electric system received a second tree, free of charge, courtesy of the Power Authority.

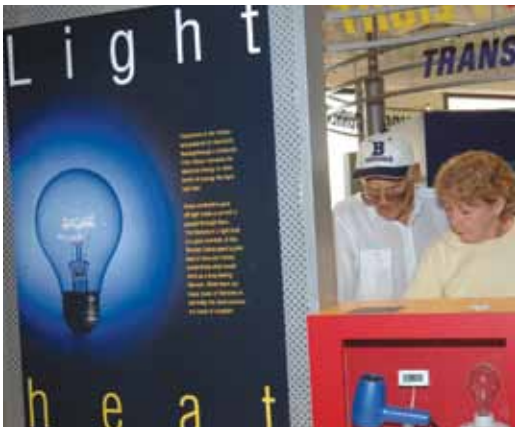
Community support has many dimensions: When a nor'easter hit Long Island in March of 2010, resulting in significant power outages, NYPA summoned its transmission linemen from around the state to assist the Long Island Power Authority and National Grid in restoring power as quickly as possible. And in September, some 45 NYPA employees joined with Habitat for Humanity of Westchester to start construction on a "near-zero-energy" home for a needy family. Design elements include solar power panels, zero VOC (volatile organic compounds) paints, recyclable flooring materials and other green features.

Since being a good neighbor means being a good citizen, the Power Authority

173 **The number** of environmental justice community groups within six miles of NYPA generating facilities.

EJ Environmental Justice
New York Power Authority

$20 Million: Approximate amount of NYPA-provided money already disbursed by four standing committees for 55 projects supporting the new Niagara River Greenway.



follows strict ethics guidelines, which in 2010 resulted in no legal actions for any anti-competitive, anti-trust or monopoly practices.

Promoting Energy Education, and More

The Power Authority's three visitors centers at the Niagara, St. Lawrence-FDR and Blenheim-Gilboa power projects form the foundation for NYPA's energy education programs. The admission-free centers buzz with activity—each year close to 150,000 people visit the sites for a variety of family-friendly events that make learning fun for all ages. Interactive displays at each location underline the importance of energy conservation and use of renewable energy.

A historical dimension was added to the Niagara Project Power Vista in 2010 with the opening of an exhibit by, and about, the nearby Tuscarora Indian Nation, which joined the Iroquois Confederacy after relocating from the Carolina region in the early 1700s. The exhibit and a college scholarship program for Tuscarora high school seniors demonstrates the growing partnership between NYPA and its Native American neighbors.

Public education doesn't stop at the visitors centers. NYPA community relations specialists frequently staff Power Authority booths at energy fairs and expos held at regional schools, libraries and senior centers across the state. And, once again in 2010, a crew of NYPA staffers presented an exhibit on clean transportation at the New York State Fair, which drew close to one million attendees.

The U.S. Department of Energy has designated October as National Energy Awareness Month, and NYPA is helping to promote conservation and efficiency beyond federal facilities. In 2010, the Niagara and Blenheim-Gilboa visitors centers introduced energy awareness programs on four successive Saturdays in October. Sample presentation and film topics included geothermal heating and cooling, wood heating, home energy audits, garbage and recycling, and the basics of electricity, narrated by "Louie the Lightning Bug."

Face-to-face outreach is vital, but reaching the broadest number of people on energy issues means maintaining a dynamic and relevant NYPA website. There, sustainability initiatives are front and center with all other community outreach activities.

Coordinating Emergency Planning

Protocols for the safe operation of NYPA facilities are clearly outlined and adhered to by all Power Authority employees. However, common sense – and Federal Energy Regulatory Commission regulations – requires NYPA to have in place emergency action plans for its major facilities. Each year, the Power Authority brings local stakeholders together to review the plans, make any necessary updates, and ensure that all, from first responders to local officials, understand the established procedures.

In 2010, the Power Authority developed a new Comprehensive Emergency Management Plan, which unifies the individual action plans and encourages a similar nomenclature, reporting structure and notification process for all types of emergencies—from fires to earthquakes to hurricanes. Training sessions for key employees have been held, with additional sessions continuing into 2011 to introduce the plan to all of NYPA's staff members and also its external stakeholders.

2010 Action Item Status Updates

Stakeholder Engagement	
Develop an environmental justice action agenda that encompasses all of NYPA's activities, providing guidance on engagement with the communities near NYPA facilities, stakeholders and First Nations	Developed an environmental justice agenda; held various introductory meetings with EJ groups upstate and downstate near NYPA facilities; supported educational programs for underserved students; gave environmental justice briefing to NYPA employees.
Continue to host NYPA trustee meetings at various locations across the state where stakeholders are welcome to attend and observe	Trustee meetings were hosted in various locations throughout the state (e.g. Elmira, Buffalo, Syracuse, Niagara). Trustee meetings are webcast and minutes are posted on NYPA's website. In an effort to reduce paper, trustees review meeting materials electronically.
Community Investment	
Continue to support community efforts that are related to NYPA's mission	NYPA remains committed to supporting community initiatives, promoting sustainability through energy efficiency and renewables around the state.
Public Education and Communication	
Expand and promote the sustainability page on NYPA's website to demonstrate commitment and track progress	Launched expanded website to coincide with release of Sustainability Action Plan. Plan announced in news release and by email to several thousand NYPA customers and other stakeholders.
Publish annual sustainability report to update public on progress of sustainability initiatives	Published first annual sustainability progress report consistent with the Global Reporting Initiative's framework.

Helping Preserve New York's Natural Resources

The Power Authority's commitment to the environment is clearly stated in the NYPA mission statement, and every employee conducts his or her job keeping these considerations in mind. Leading this effort is the Environmental division of NYPA's Power Supply business unit, with staff members at every major facility and the main administrative offices in White Plains. The group's Environmental Performance and Improvement Committee (EPIC) meets throughout the year to monitor and measure the impact of NYPA operations on the environment. NYPA also conducts environmental awareness training, with more than 900 employees completing the program in 2010.

Going Green Inside and Out

Environmental staff members are helping conduct various audits throughout the Power Authority to measure how much energy, water and trash are consumed or created. Potable water supplies for each facility will be tested to help eliminate the use of bottled drinking water as much as possible, a goal that will conserve natural resources while reducing the waste stream.

Recycling is in effect at every NYPA facility, though the materials collected differ from site to site. Waste audits are being conducted to identify ways to reduce and recycle more of the items that commonly end up in the garbage. Hazardous waste is handled with special disposal procedures, and recycled whenever possible. In 2010, 30 tons of hazardous waste were recycled.

Handling Oil With Special Care

Because so much of NYPA's operations involve the use of oil-based products—for insulating, lubricating, hydraulics and other industrial purposes—spill prevention and response are major concerns. In 2010, the Power Authority had 15 recordable oil spills, totaling 248 gallons.

Improving this record is an ongoing goal for employees, and at the St. Lawrence-FDR hydro project, an innovative approach has been introduced. Storm sewer catch basins around the project have been color-coded with corresponding outfalls

to more quickly and easily identify where an oil spill might end up. The new system enables a speedy response should any spills occur.

Reducing Carbon Emissions

One of the most pressing environmental challenges, particularly in the utility industry, is reducing greenhouse gas emissions. And while almost 80 percent of NYPA's generation comes from emission-free hydropower, a multi-pronged approach has been introduced to minimize direct and indirect air emissions.

The first step was a comprehensive baseline analysis of NYPA's carbon "footprint" following the U.S. Climate Registry's methodology. Because 2010 was the Power Authority's first time providing this data, NYPA filed as a "transitional reporter" (supplying only CO_2 from stationary sources). For the 2009 calendar year, these emissions totaled 2,821,965 metric tons. The scope of measurements is expected to expand in the future.

NYPA's agreement to cease operations at its Charles Poletti Power Plant, an 885-megawatt natural gas- and oil-burning site in Queens, in January 2010 had a significant impact on carbon emissions. An environmentally-sensitive decommissioning process is now under way, which will include salvaging materials, cleaning the fuel storage yard and relocating still-useful infrastructure.

For the past decade, NYPA has been a member of the federal SF6 Emissions Reduction Partnership for Electric Power Systems. Sulfur hexafluoride (SF6) is a highly potent greenhouse gas, much more significant than CO_2, and is commonly used in electrical transmission equipment. The Power Authority has been active in reducing SF6 emissions through improved leak detection and system tracking. Through the partnership, NYPA has committed to maintain an SF6 leakage rate below 6 percent, and for the past several years has bettered that rate, with a 2009 rate of 3.4 percent.

In 2010, two initiatives to minimize SF6 emissions were procurement of reclamation trailers to help minimize leaks while equipment is serviced, and installation of remote sensors at an upstate substation for early detection of SF6 releases, before equipment failure occurs.

On a smaller scale, NYPA is reducing its carbon footprint by promoting clean transportation policies. These include an expanded flex-time policy that helps lessen employee commuting, and the

Habitat Improvement Projects

Project Name	Project Description
Completed with Ongoing Monitoring	
American Eel Ladder, Massena	Constructed fish ladder for safe upstream passage; completed in 2006.
Common Loon Nesting Program, Lake St. Lawrence	Created five nesting opportunities; completed in 2006.
Coles Creek Fisheries, Louisville	Expanded existing spawning habitat; completed in 2007.
Walleye Spawning Bed, Louisville	Expanded existing spawning habitat through placement of gravel & rocks; completed in 2007.
Coles Creek Wetlands, Louisville	Created and restored wetlands buffer; completed in 2008.
Blanding's Turtle Nesting Program, Louisville	Created and enhanced nesting habitat; completed in 2009.
Osprey Nesting Platforms, Lake St. Lawrence and Tributaries	Created six nesting opportunities; completed in 2009.
Installation of Fish Habitat/Attraction Structures, Tonawanda	Created artificial reefs to promote river fish habitat; completed in 2009.
In Construction	
Common Tern Nesting Program, Lake St. Lawrence	Create nesting habitat; implementation began in 2005; ongoing enhancements.
Grassland Bird Nesting Habitat, Waddington	Manage grassland bird nesting areas; implementation begain in 2005; ongoing management.

(Continued)

Habitat Improvement Projects *(continued)*

Project Name	Project Description
In Construction	
Lake Sturgeon Spawning Beds, Lake St. Lawrence	Install gravel spawning beds; two beds completed in 2007; currently identifying two additional beds.
Beaver Island Wetlands Restoration, Grand Island	Restore filled-in emergent wetland areas; scheduled completion in 2011.
Osprey Nesting, Grand Island	Install up to six osprey nesting platforms; three sites completed; three more to be completed by 2011.
Common Tern Nesting, Buffalo Harbor	Create new nesting habitat; Phase 1 completed in 2010 and Phase 2 to be completed by 2011.
Control of Invasive Species-Buckhorn and Tifft Marshes, Grand Island/Buffalo	Control invasive species in existing marsh areas; scheduled completion in 2011.
Planned Construction	
Little Sucker Brook Pond, Waddington	Create controlled level pond to enhance and diversify existing wetlands habitat; proposed construction in 2011.
Frog Island Restoration, Grand Island	Recreate emergent marsh in Niagara River; proposed construction in 2012.
Motor Island Shoreline Restoration, Grand Island	Create natural shoreline habitat; proposed construction in 2012.
Strawberry Island Wetlands Restoration, Grand Island	Construct additional wetlands protection measures; proposed construction in 2013.

launch of an automotive fleet analysis to better manage vehicle usage and maximize future low-carbon purchases.

Keeping the State's Energy Highway Safe

NYPA's 1,400 circuit-miles of transmission lines are an "energy highway" that delivers electricity from one end of New York State to the other. Beneath these power lines are some 16,000 acres of right-of-way that must be managed with the dual responsibility of keeping the power flowing without harming the environment.

NYPA's Transmission Vegetation Management Program helps promote diversity and low-growth trees and shrubs near these power lines using various techniques including the selective use of herbicides when necessary. In collaboration with the State University of New York's College of Environmental Science and Forestry in Syracuse, NYPA helped develop and fund publication of a new field guide for line crews in 2010. The subject of the illustrated manual is the willow, whose wide-ranging varieties are found throughout the Northeast. By promoting smaller species of willow along rights-of-way, line crews can target taller species, thus preventing their spread.

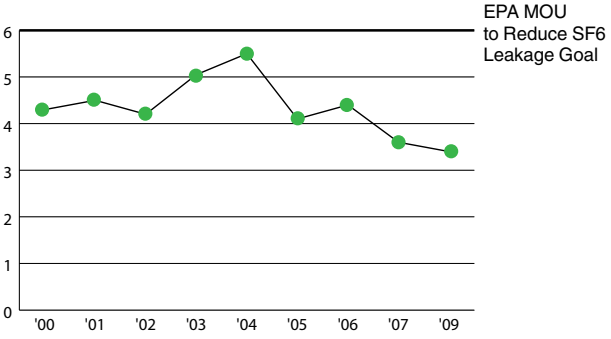
Helping to Boost Biodiversity

As the steward of approximately 30,000 acres of land and water available for public use, the Power Authority has a responsibility to ensure that a diverse ecosystem flourishes within the boundaries of its major hydroelectric projects. Relicensing efforts recently concluded at its St. Lawrence-FDR and Niagara projects include NYPA's commitment to a wide range of recreational enhancement and habitat improvement projects benefiting both protected species and those that are pursued by hunters and anglers.

Close to $6 million has been authorized, for example, for capital improvements to enhance public fishing access near the Niagara project. Increased parking and other amenities will benefit facilities in both the lower and upper Niagara River, and Reservoir State Park, next to the project's Lewiston Pump-Generating Plant.

NYPA has received several national awards for its efforts, including, in 2010, the Outstanding Stewards of America's

SF6 Leakage Rate

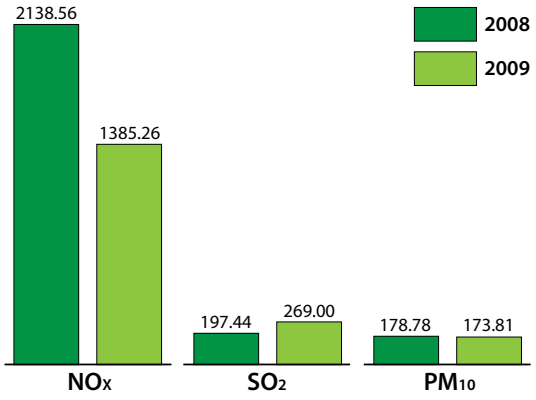


In 2008, NYPA switched its SF6 data collection system and therefore did not file a report with EPA that year.

Waters Award, for a common tern nesting project in Buffalo Harbor, which has led to 550 new nests and the hatching and maturation of more than 1,000 young birds.

And underwater, NYPA is testing a hydro-acoustic deterrent system at a small hydro plant along the Mohawk River, near Albany. The system is designed to prevent juvenile blueback herring from flowing through turbines, instead guiding them to a dam bypass. As it did with an eel ladder installed at its St. Lawrence-FDR project in 2006, NYPA staff will monitor the success of this protection system, making necessary improvements to ensure that fish can safely live alongside hydropower facilities.

NO_X, SO_2 and PM_{10} Emissions



2010 Action Item Status Updates

Carbon Reductions	
Calculate carbon footprint per the Climate Registry protocol and publicly disclose analysis	NYPA has calculated its carbon dioxide emissions from stationary combustion sources and submitted all documentation under the "Transitional Reporter" category for 2009. Site audits were conducted at the 500 MW, Blenheim-Gilboa, Flynn, and the 26th Ward Fuel Cell to ensure accuracy.
Conduct energy audits at all NYPA facilities and implement energy conservation measures	Completed energy audits at Niagara and St. Lawrence-FDR projects and will conduct two additional audits in 2011.
Pursue LEED certification for all existing visitors centers and all new buildings	Initiated LEED feasibility analysis for three visitors centers; started construction on new warehouse building at the Niagara project that is designed to meet LEED Gold standards.
Develop a carbon reduction program for NYPA fossil fuel generation facilities to ensure compliance with federal climate change legislation	As federal climate change legislation appeared less likely in 2010, attention focused on the EPA's proposal to regulate greenhouse gas emissions. NYPA participated in leading industry groups to help monitor developing regulations, advocate for reasonable rules and evaluate potential compliance risks to its facilities.
Conduct a green Information Technology audit to identify energy and other savings	Hired consultant to establish an energy usage baseline of the White Plains data center facility and to develop options for energy reductions. Report expected in 2011.
Conduct a green fleet management study to maximize carbon reductions	In partnership with EPRI, developed scope of work and launched study of NYPA's fleet. The study is expected to be completed in 2011.
Collaborate with relevant entities to enact a comprehensive climate change policy	Collaborations with leading industry groups and the Governor's office helped NYPA monitor developing federal greenhouse gas policies and advocate for clear and reasonable rules. NYPA also participated in the multi-stakeholder process of drafting policy proposals for the State Climate Action Plan.
Water Management	
Conduct audits of non-process water use at all NYPA facilities to reduce the use of potable water starting with NYPA's visitors centers in association with LEED efforts	Non-process water audits were completed at the Niagara, St. Lawrence-FDR and Blenheim-Gilboa projects, and the Clark Energy Center. Two additional audits will be completed in 2011. In addition, as part of the LEED feasibility analysis, water audits will take place at all three visitors centers in 2011.
Land Management	
Complete Habitat Improvement Projects and Recreation Enhancement Projects per relicensing agreements for Niagara and St. Lawrence-FDR	Work has continued on fulfilling all habitat and recreation projects required as part of the new Niagara and St. Lawrence-FDR licenses. Regular meetings have been held with stakeholders and host communities to ensure timely and quality projects are completed.
Continue to manage rights-of-way according to NYPA's Vegetation Management Plan and implement EPRI recommendations	The Systemwide Long-Range Transmission Right-of-Way Vegetation Management Plan and Program was revised to comply with new federal requirements. A portion of the EPRI recommendations have been implemented, including an invasive species transport prevention program, and additional recommendations will be reviewed for inclusion during the next annual update.
Waste Management	
Develop a waste management plan to obtain a 10% reduction per state requirements	Non-hazardous waste audits were completed at the White Plains Office, Clark Energy Center and Blenheim-Gilboa Project.

Low-Cost Power is Just the Beginning

The Power Authority's relationship with its 790 customers from Eastern Long Island to Western New York is critical to its overall success. In 2010, NYPA enhanced existing or initiated new programs to protect and nourish these decades-old ties.

At the core of NYPA's mission – and now, a central element of its Sustainability Action Plan – is the goal of leveraging NYPA's low-cost power to spur economic development throughout New York State. Of the many success stories in 2010, the September grand opening of Yahoo!'s $150-million data center in Niagara County, creating 125 new high-tech positions, was especially encouraging. An allocation of NYPA hydropower was a key factor in Yahoo!'s decision to bring its state-of-the-art, energy-efficient facility to Western New York.

Alternative Methods to Strengthen the Economy

Besides direct allocations of electricity, the Power Authority has other ways to aid the state's economy. For example, Industrial Incentive Awards are providing businesses with utility bill discounts in return for job commitments. Five awards made in 2010, totaling $1.24 million, are helping support over 1,000 jobs.

NYPA's 13-year-old Power for Jobs program, which lowers energy costs for businesses and not-for-profit organizations in exchange for job retention and creation, was extended for another year while the State Legislature works toward agreement on a longer term program. In 2010, Power for Jobs helped support over 230,000 jobs at 428 NYPA customers across the state.

Responding to continuing national and regional economic stress, NYPA agreed to sustain a hydropower rate freeze adopted the previous year for a wide range of customers, largely based in Western and Northern New York. When the rate freeze continuation was announced, in August, these customers had already saved about $20 million over a 16-month period. The group includes Western New York industries, municipal and rural cooperative electric systems statewide, host communities participating in the Niagara project relicensing and Preservation Power customers in Northern New York.

Energy Efficiency's Growing Importance Statewide

Perhaps one of the best examples of NYPA / customer teamwork may be found in the lineup of energy efficiency projects being completed across the Empire State.

NYPA has stepped up funding and staffing to offer turnkey (audit, design, financing, construction) energy efficiency services with no upfront costs to public schools, government facilities and other not-for-profits such as hospitals and museums in communities large and small. These efforts are grounded in support for New York State's goal of reaching 45 percent of its electricity needs from renewable resources and energy efficiency in the next five years.

In 2010, NYPA investments in clean energy reached more than $175 million with 78 projects completed and 432 under way. Annual cost savings for all participating customers now exceed

$129 million a year, with oil consumption down by nearly 2.4 million barrels and greenhouse gases cut by 800,000 tons annually.

The diversity of these project locations and technologies helps New York State maintain its position among sustainability leaders. On the State University of New York's University at Buffalo campus, for example, a central chilled water plant, upgraded outdoor lighting and water heaters will save SUNY about $200,000 a year. At the other end of the state, the New York City Housing Authority, one of NYPA's single largest customers, is saving $1.4 million annually with lighting improvements in all 2,025 of its Castle Hill apartments.

NYPA recently launched a plan to cut energy demand from public water supply and wastewater treatment plants around the state. Solar power systems, biogas recovery to produce onsite power and other efficiency improvements will cut annual demand at these energy-intensive facilities by 20 percent. The money municipalities save on utility bills can be better used to help maintain and improve their aging water treatment infrastructures.

In an effort to help meet the state's clean energy goals, a new Business Development group was formed in 2010 to promote NYPA's energy efficiency programs to a wide array of organizations that have not traditionally looked to NYPA for the provision of energy or services.

Renewables Fuel Sustainability

The Power Authority is aggressively working to increase renewable power in New York State. At the start of 2010, NYPA issued a Request for Proposals (RFP) for a landmark program to install up to 100 megawatts (MW) of solar photovoltaic systems among New York schools, government facilities and other locations by 2014. NYPA expects to execute contracts for these projects by the end of 2011.

Other significant solar initiatives that advanced in 2010 include progress on a 750-kilowatt array at the University at Buffalo, with design input from a landscape architect to improve aesthetics and ensure the installation becomes a focal point for campus residents and visitors. On a smaller scale, NYPA worked with its public power customers to provide financial incentives to residents and businesses that installed solar panels to reap energy savings from the sun.

NYPA is also spearheading the world's first freshwater offshore wind farm, and spent much of 2010 reviewing responses to an RFP for 120-to-500 MW of wind power to be located in the New York State waters of Lake Erie and/or Lake Ontario. This would not only help meet the state's renewable energy goals but provide an anchor for economic development in these regions.

Downstate, NYPA is collaborating in a public-private partnership to conduct feasibility studies on a second maritime wind farm in the Atlantic Ocean off New York City.

And, in partnership with the Port Authority of New York and New Jersey, NYPA trustees approved purchase of Renewable Energy Credits and other environmental attributes from a biomass facility being built in Orange County, home of the Port Authority-owned Stewart Airport. In addition to helping the airport reach its goal of carbon neutrality, the agreement supports construction of a biomass facility that promises to create more than 400 construction jobs over the next two years and 80 permanent operating positions when complete in late 2012.

9 different economic development programs are administered by NYPA around the state.

Moving Clean Transportation Forward Faster

NYPA's electric vehicle program, in place since 1995, has helped place more than 1,200 electric- and hybrid-electric cars, trucks and off-road vehicles on New York roadways, rolling up more than 11 million miles in that time. Some recent headlines include an announcement that Ford Motor Company and NYPA are teaming up to develop consumer outreach and education programs on electric vehicles for NYPA's state and local government customers. The program will include sharing information on charging needs and requirements to ensure the electric grid can support the looming demand.

NYPA assists with government grants that help municipal utilities and rural electric cooperatives purchase alternative-fueled vans, buses, trucks, cars and work vehicles. Customers — including the Fairport, Massena, Rockville Centre, Tupper Lake, Solvay and Penn Yan municipal systems — have purchased heavy duty hybrid-electric bucket trucks through this cooperative effort.

In other clean transportation developments, NYPA is continuing its evaluation of hybrid-electric school bus performance in a program that analyzes the most efficient applications of electric-drive technology in daily bus fleet applications. Additionally, New York's first hybrid-electric yard tractors have been introduced at the New York Container Terminal's Howland Hook facility.

Finding New Ways to Deliver Customer Service

NYPA's website reflects an enhanced customer focus with special content that is updated frequently. Also, annual surveys are used to elicit straightforward, candid comments on NYPA's relationships with the various customer groups served. Responses from the 2009 survey revealed concerns over billing procedures, for instance, which resulted in system improvements. Responses from the 2010 survey are currently under review.

NYPA enthusiastically practices supplier diversity as part of its economic development strategies, and in 2010 awarded more than $35 million—or 12 percent—of its reportable expenditures to state-certified minority- and women-owned business enterprises (MWBE), double its goal. NYPA also hosted its 20th annual Purchasing Exchange, bringing together about 40 private and public sector entities with close to 270 suppliers to further encourage MWBE participation in the state's supply chain.

115 **The number** of public and governmental entities in New York City and Westchester County, including some of NYPA's biggest customers, that rely on the Power Authority for all of their electricity needs.

2010 Action Item Status Updates

Demand-Side Management	
Continue to provide turn-key energy efficiency services, including consulting, financing and project management	NYPA exceeded its 2010 energy efficiency target and completed 78 projects that collectively save customers 89,860 MWH.
Explore rate structure for governmental customers that incentivizes demand-side management	Completed rate re-design study for governmental customers that sends a strong price signal to conserve energy when it is most cost-effective; it is expected that NYPA will proceed with the rate change process, including a public comment period, in 2011.
Renewable Energy	
Formalize and promote NYPA's ability to offer green power and credits to its customers	Developed a streamlined procurement program and marketing materials for green power products. Test marketed with a limited number of customers and conducted a competitive solicitation based on demand. Planning a formal roll-out and expansion of program in 2011.
Increase distributed renewable energy generation in New York State	Completed solar installations in Buffalo, Westchester County, Ulster County and rural areas, and supported a fleet of renewable fuel cells in New York City. A short list of bidders has been selected from the 100 MW solar power purchase initiative RFP, and is expected to be recommended to the trustees in 2011.
Foster utility-scale renewable energy generation capacity in New York State	Completed initial evaluation of proposals for Great Lakes Offshore Wind project; on schedule to propose recommendations to trustees in 2011. NYPA and its collaborative partners, Con Edison and LIPA, are preparing an application to the federal government to lease property in the Atlantic Ocean for a downstate offshore wind project.
Continue to fund research of large-scale renewable energy storage	Continued support for renewable energy storage projects, such as the EPRI Compressed Air Energy Storage Project; completed economic feasibility and initial site selection; site selection expected to be completed by 2012. Issued an RFP for a wind turbine at the SUNY Canton campus that will be integrated with an energy storage battery.
Alternative Fuel Transportation	
Continue to participate in national, state and regional programs to promote the development and demonstration of electric, hybrid-electric and plug-in hybrid-electric vehicles	Participated with customers in national, regional and state programs to accelerate the development and commercialization of hybrid and plug-in hybrid trucks, buses and off-road equipment. Launched program to support the introduction of plug-in electric vehicles into customer fleets.
Develop and demonstrate renewable energy smart charge infrastructure for electric and plug-in hybrid-electric vehicles	Design for solar-assisted vehicle-charging system finalized and prototype installation constructed by EPRI in Knoxville. Testing and validation to be completed in 2011. All system elements are modular and scalable, so design is adaptable to New York sites.
Clean Energy Procurement	
Establish policy regarding fuel source and environmental impact for bi-lateral energy contracts	Established Clean Energy Procurement policy stating NYPA will give preference to generating facilities with low carbon emissions when evaluating bids for bi-lateral contracts.
Economic Development	
Continue to maximize NYPA power resources to attract business capital and quality jobs to New York State	Extended contracts for 428 Power for Jobs customers to retain over 234,000 jobs, 106 Western New York hydro customers for retention of over 28,400 jobs, and Energy Cost Savings Benefits for 86 customers to retain over 71,000 jobs. Approved three municipal and cooperative economic development program allocations for a commitment of 1,000 jobs.

Keeping New York's Power Supplies Flowing

The Power Authority's 17 generating facilities and 1,400 circuit-miles of transmission lines are the core of NYPA's organization, and operating these assets in a safe, reliable and efficient manner forms the foundation on which all other activities are built. The Power Authority presently meets about 20 percent of the state's electricity needs, and dependable service is crucial to the stability of businesses, governments and communities across New York.

New Lease on Life for Large Hydro Projects

Hydropower is New York's original renewable resource, and NYPA takes seriously its role as steward of the state's major hydroelectric projects. Some 80 percent of NYPA's generation comes from flowing water, so maintaining these facilities is an ongoing imperative.

The Blenheim-Gilboa Pumped Storage Power Project returned to full service in 2010 after completion of a $135-million upgrade, known as a Life Extension and Modernization (LEM) effort. Over a four-year period, each of B-G's four pump-turbines was replaced with new units that, together, increase the project's total output by 120 megawatts (MW), or 11.5 percent, to 1,160 MW. Completed under-budget and ahead of schedule, the Blenheim-Gilboa LEM will serve as a model for a similar upgrade set to begin in 2012 for NYPA's other pumped storage facility, the Lewiston Pump-Generating Plant, which is part of the Niagara Power Project.

Celebrating its 50th anniversary of power production in 2011, NYPA's Niagara project completed a 15-year, $300-million refurbishment at its main power dam, the Robert Moses Niagara Power Plant, in 2006. An equally impressive overhaul under way at the St. Lawrence-Franklin D. Roosevelt Power Project, estimated to cost $281-million over 15 years, is scheduled for completion by 2013.

Important as its hydropower assets are, NYPA's generation mix also includes some of the state's cleanest fossil fuel plants, located in downstate areas with especially high demand. These facilities must also be maintained for efficient performance. On Long Island, the Flynn plant was taken out of service for several months in 2010 for repairs to a rotor inside the combustion turbine generator. Constant monitoring by NYPA staff is credited with catching the rotor malfunction before it caused more serious problems for the plant.

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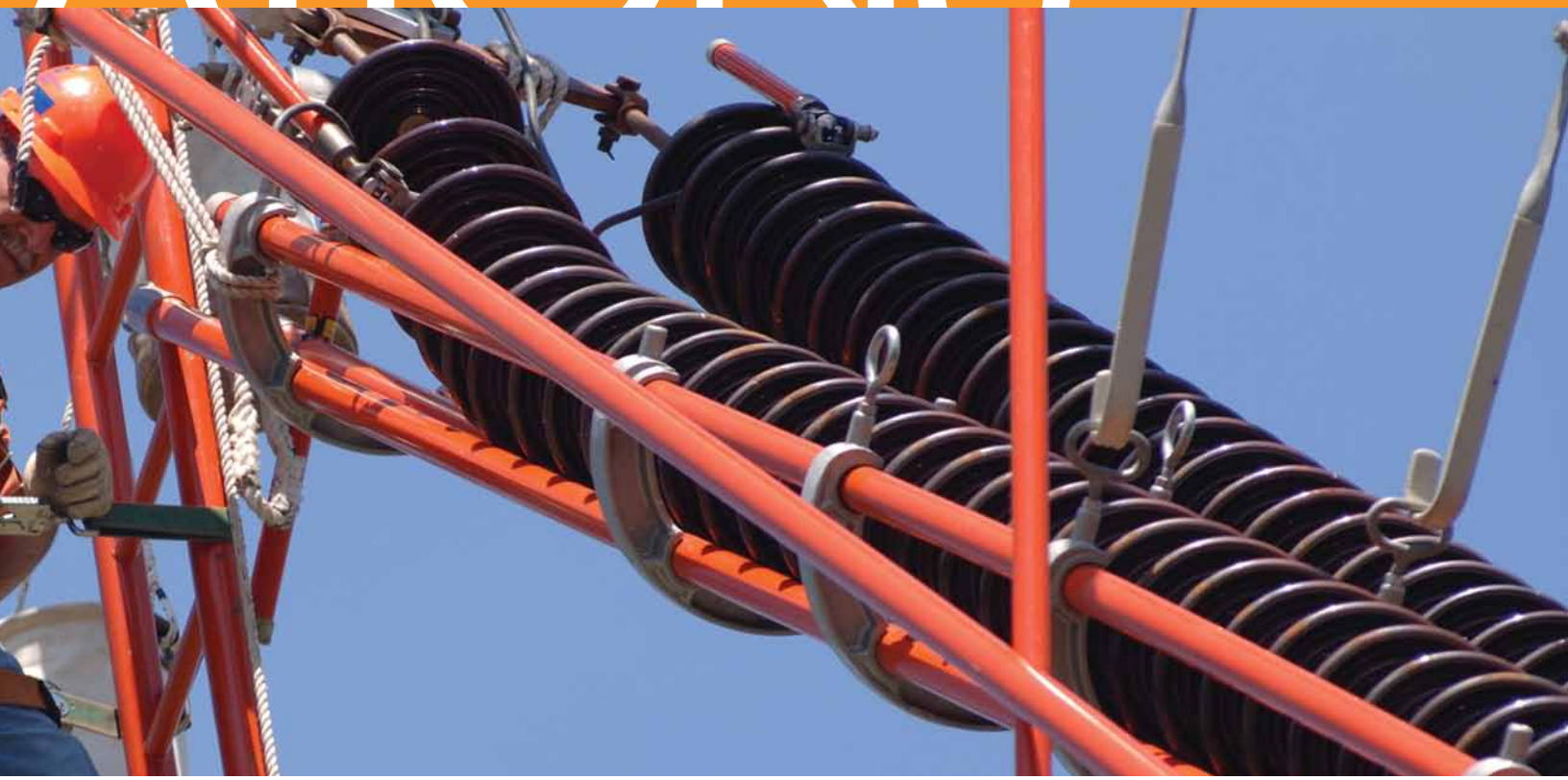


Aging Infrastructure Requires Special Attention

The Power Authority's 60-year-old transmission system is starting to show signs of age. In 2010, NYPA began to take a holistic approach to assessing its transmission assets and is developing a multiyear plan for a transmission LEM. This master plan will examine equipment replacement along with other ways to improve reliability and efficiency. It will also explore how to incorporate a higher level of sustainability into NYPA's transmission business model.

The need for such a comprehensive review was underscored early in 2010 by a failure on NYPA's Y-49 feeder cable, an underground power line that runs through Westchester and Nassau counties. As repairs progressed, Power Authority engineers took a fresh look at their preventive maintenance strategies so that future problems are detected earlier, before they might result in an outage.

Since the Northeast's 2003 blackout, regulators have zeroed in on the need for improved coordination between transmis-

NYPA's Generation Assets

	Installed Capacity (MW)	Net Energy Output (Gwh)	Average Plant Availability (% of hours available to produce power/8760)	Forced Outage Factor (# of outage hours/8760)	Average Power Outage Duration (# of outage hours/# of outages)	Average Thermal Heat Rate (BTU input/ Kwh output)
Hydro Facilities						
St. Lawrence-FDR	912	6,611	92.6	8.8	74.4	N/A
Niagara	2,755	13,242	93.3	3.7	55.1	N/A
Blenheim-Gilboa	1,130	(146)	87.9	0.4	62.4	N/A
Small hydro plants	40	288	88.3	7.0	151.1	N/A
Natural Gas/Oil Facilities						
500 MW	500	2,945	91.7	0.7	41.0	7,409
Flynn	167	943	74.0	0.2	325.7	7,874
Small Clean Power Plants	517	508	92.3	1.5	30.7	10,862

sion operators as well as increased cyber security measures throughout the electric grid. The Power Authority has been an active participant in shaping the new rules that have resulted, and has been aggressively training its employees, following up on compliance developments industry-wide and abiding by new policies and procedures as they emerge.

Making the Electric Grid Smarter

The Power Authority continues to be in the forefront of transmission innovations, working with industry groups, other utilities and government entities to enable its power delivery network to meet 21st century demands. As "smart grid" becomes a more common part of the vocabulary, NYPA is exploring and demonstrating new technologies to improve its operations by making its transmission system more dynamic, and therefore, more efficient.

Because enhanced communication and coordination is fundamental to any system-wide improvements, NYPA joined New York's Smart Grid Consortium in 2009 and, in 2010, contributed $500,000 to the Advanced Energy Technology Center, based at SUNY Stony Brook, to support research and development of smart grid initiatives. As a result of NYPA's ongoing collaboration, two projects are advancing, in part due to funds received from the U.S. Department of Energy through the American Recovery and Reinvestment Act.

The first initiative involves a Dynamic Thermal Circuit Rating system that will help NYPA track temperature, humidity and other conditions along its transmission lines, providing real-time information that, when managed properly, could help operators realize a 5-to-15 percent increase in capacity — contributing to lower energy costs and more efficient delivery of notoriously intermittent wind-generated power.

The second project employs a statewide network of Phasor Measurement Units, devices that measure voltage and current in real time and which can alert operators to the potential for oncoming disturbances in the transmission system, allowing immediate response and remedy.

New Challenges Call For New Solutions

The Power Authority is demonstrating new strategies at its generating sites as well. In early 2010, NYPA ceased operations at its 885-MW Charles Poletti Power Project, in Queens, responding to environmental concerns by the local community. Next door, at its 500-MW Combined-Cycle Power Plant, NYPA is using a new Combustion Dynamics Monitoring System to optimize operational flexibility and ensure emissions compliance.

Across the state, an Acoustic Doppler Flow Measurement System monitors real-time velocity, discharge and water elevation at the Niagara hydro project, providing a method to obtain continuous accurate information, which enables NYPA to optimize water usage and power generation.

The Power Authority has been actively involved in climate change discussions at the state and federal levels for several years. NYPA's Sustainability Action Plan outlines a multi-

120MW

The increase in Blenheim-Gilboa's total output following a four-year upgrade completed in 2010.

NYPA's Transmission Assets

	Underground (circuit miles)	Overhead (circuit miles)	Total
115kv	1.67	34	35.67
138kv	3.16	0	3.16
230kv	0	334	334
345kv	43	940	983
765kv	0	104	104
Total	47.83	1412	1459.83

faceted approach in its own operations to help reduce climate change advances. However, human impacts on the earth's environment are already being felt, prompting the need for adaptive responses and proactive measures by the Power Authority and others to minimize these effects. Longer term, NYPA is evaluating various scenarios — from rising sea levels to increasing storm intensities — and developing strategies to best prepare for any possible consequences of climate change. As a provider of critical services and a member of New York's community-at-large, the Power Authority recognizes its responsibility to help the public face these future challenges.

2010 Action Item Status Updates

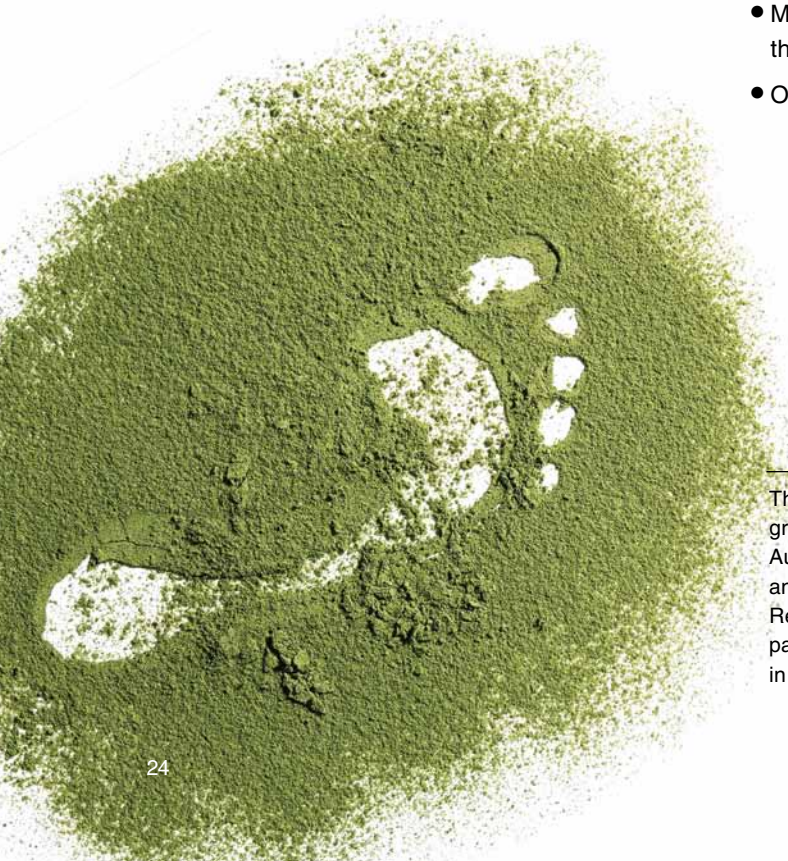
Strategic Planning	
Incorporate sustainability into NYPA's strategic planning process	Sustainability has been integrated into all aspects of NYPA's Strategic Plan and is embodied in the Mission Statement; sustainability performance is now tracked monthly at the corporate and business unit levels.
Generation and Transmission Reliability	
Continue to maintain generation and transmission equipment to meet and exceed industry reliability goals per NERC and FERC requirements	Generation and Transmission reliability remain at the core of NYPA's business. Major upgrades and planned maintenance on these assets ensure NYPA continues to meet its reliability targets. Due to unforeseen incidents, NYPA did not meet its Transmission system reliability targets this year, however, performance still exceeds industry requirements.
Facilitate interconnection of renewable power generation to NYPA's transmission infrastructure	In collaboration with National Grid and Con Edison, NYPA has conducted feasibility studies for transmission infrastructure changes that will facilitate integration of renewables. Review of these studies will continue next year to determine next steps.
Generation and Transmission Efficiency	
Complete the current hydropower Life Extension and Modernization (LEM) programs and evaluate similar programs for remaining hydro facilities and for transmission infrastructure	The multi-year LEM at the Blenheim-Gilboa project was completed in 2010 ahead of schedule and under budget; NYPA trustees approved a LEM at the Lewiston Pump-Generating Plant; work has also begun on an assessment of a future Transmission LEM.
Integrate smart grid technology into NYPA's transmission system	Worked closely with NYISO, EPRI and NYSERDA to determine optimal locations for Phasor Measurement Units (PMU) to enhance grid operation; procured PMU equipment for Willis substation for installation in 2011; Dynamic Circuit Thermal Rating equipment installed and working with EPRI on data gathering and analysis.
Explore use of non-petroleum-based oils in NYPA's electrical equipment	As part of contract review for new transformers at the Lewiston Pump-Generating Plant, non-petroleum based oils were evaluated for inclusion, but were determined not to be feasible, due to technical issues with this particular class of transformers. As the industry evolves, NYPA will consider non-petroleum based oils as an option in the future, if applicable to the class of transformer.
Clean Energy Demonstrations	
Install renewable distributed generation systems at select NYPA facilities	A PV system for the Power Vista has been identified and is under development for 2011.
Climate Change Adaptation	
Identify climate change impacts on NYPA infrastructure and develop adaptation plan	Developed climate change adaptation plan for NYC facilities; a similar effort for upstate assets is in development.

In 2011, NYPA Will Continue to Implement its Sustainability Action Plan.

We will continue to …

- Educate and engage our employees on sustainability issues
- Partner with the communities in which we operate
- Report publicly on progress made implementing the Sustainability Action Plan
- Lead by example with sustainable practices and operations at our facilities
- Implement energy efficiency and renewable energy projects of varying sizes, thus advancing the state's clean energy goals
- Maximize economic development opportunities throughout the state
- Operate our assets in a reliable and efficient manner…

…and more.



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About NYPA

The New York Power Authority (NYPA) is a public authority and the country's largest state power organization. NYPA operates 17 generating facilities, of which nearly 80% of the output is sourced from renewable hydropower, and over 1,400 circuit-miles of transmission lines. NYPA provides approximately 20% of New York State's electricity and some of its lowest-cost power. NYPA provides power to governmental agencies, community-owned electric systems and rural cooperatives, and to business customers that support almost 370,000 jobs in New York. NYPA also provides power to private utilities for resale, without profit, to New York State ratepayers, and to neighboring states, per federal requirements. NYPA is a leader in providing energy efficiency services and advancing renewable energy and electric-drive vehicle development.

NYPA is governed by trustees who are appointed by the Governor and confirmed by the State Senate. Individuals serving on the seven-member board, which includes a Chair and Vice Chair, are independent and non-executive. Standing trustee committees include audit, governance and finance. Trustees meet approximately 10 times a year or more frequently if necessary.

NYPA's President and Chief Executive Officer is appointed by the trustees, and is responsible for the strategic vision and day-to-day operations of the organization. The President and CEO oversees NYPA's executive management team, comprised of heads of business units and other senior staff members, which reviews and proposes corporate strategies, policies and programs.

NYPA's main administrative offices are located at 123 Main Street, White Plains, NY 10601. All other facilities are located in New York State.

Michael J. Townsend
Chairman

Jonathan F. Foster
Vice Chairman

D. Patrick Curley
Trustee

Eugene L. Nicandri
Trustee

Mark O'Luck
Trustee

Richard M. Kessel
President & CEO

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**Partial Reporting*
^2009 data
•See the NYPA 2010 Annual Report for this information.


New York Power Authority
Generating more than electricity

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