

# The North Country Energy \$mart Communities *presents:*

## Saving Energy in Your Municipality

April 28<sup>th</sup>, 2011  
Syracuse Center of Excellence  
at the  
Minnowbrook Conference Center, Blue Mountain Lake, NY  
&  
Jim Juczak, NCE\$C Coordinator

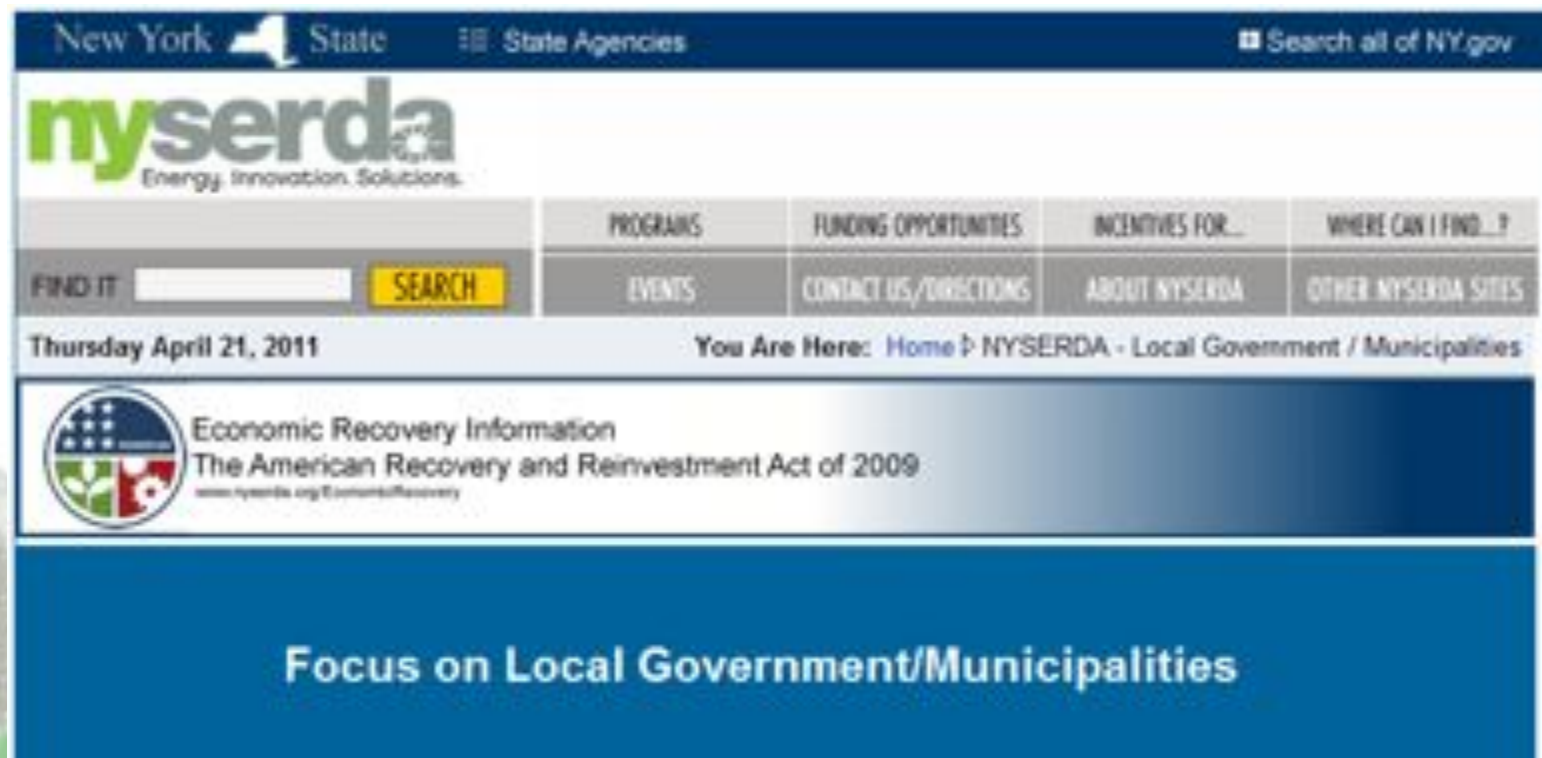


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# Focus on Local Government/ Municipalities



The screenshot shows the NYserda website interface. At the top, there is a navigation bar with 'New York State' and 'State Agencies' links, and a search bar labeled 'Search all of NY.gov'. Below this is the NYserda logo with the tagline 'Energy. Innovation. Solutions.'. A horizontal menu contains links for 'PROGRAMS', 'FUNDING OPPORTUNITIES', 'INCENTIVES FOR...', and 'WHERE CAN I FIND...?'. Below the menu is a search bar with the text 'FIND IT' and a yellow 'SEARCH' button. The date 'Thursday April 21, 2011' is displayed on the left, and the breadcrumb 'You Are Here: Home > NYSERDA - Local Government / Municipalities' is on the right. A blue banner features the 'Economic Recovery Information' logo and text: 'Economic Recovery Information', 'The American Recovery and Reinvestment Act of 2009', and 'www.nyserda.org/EconomicRecovery'. The main content area has a large blue header with the text 'Focus on Local Government/Municipalities'.



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# What you really want to do:

- Reduce operating costs
- Control spending
- Optimize energy consumption
- Promote a low-carbon economy

## Energy Efficiency and Greenhouse Gas Reduction Measures:

- Identify opportunities for energy savings
- Assist with implementation of energy projects, helping to address municipal financing and staffing concerns
- Facilitate participation in NYSERDA technical assistance and funding programs
- Assist with municipal completion of an inventory of greenhouse gas (GHG) emissions
- Support municipal efforts to develop and implement a "local action plan" to reduce GHG emissions and save energy
- Provide assistance with municipal benchmarking efforts to monitor progress



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# Renewable Energy and Energy Efficiency

- The Two Pillars of a Sustainable Energy Policy

NYSERDA's Focus on Local Government Program helps municipalities obtain funding for planned or proposed municipal energy projects, from updated wastewater facilities to new construction to alternative-fuel vehicle fleets.

Our regional experts help you to select the program that is right for your community's goals and assist with estimating your incentive and completing the application process, at no cost to you.



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# What is available?

## NYSERDA Programs

NYSERDA is available to help local governments identify strategies for reducing energy demand and prioritizing a plan of action. NYSERDA programs can be used for services such as obtaining technical assistance or offsetting a portion of the incremental cost of an energy efficiency or renewable energy project.



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# FlexTech Program



## Who is eligible?

Eligible applicants include: NYS industrial and commercial facilities, state and local governments, not-for-profit and private institutions, public and private K-12 schools, colleges and universities, and health care facilities. Facilities must pay into the System Benefits Charge as electricity distribution customers of one of the following utilities: Central Hudson Gas & Electric Corporation, Consolidated Edison, New York State Electric & Gas Corporation, National Grid, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

## What this Program Offers

NYSERDA's FlexTech Program provides New York State commercial, industrial, institutional, government, and not-for-profit sectors with objective and customized information to help customers make informed energy decisions. FlexTech's goal is to increase productivity and economic competitiveness of participating facilities by identifying and encouraging the implementation of cost-effective energy efficiency, carbon reduction measures, peak-load curtailment, and combined heat & power (CHP) and renewable generation projects. Cost-sharing incentives are available to eligible participants for the following types of studies:

- General Energy Feasibility Studies and Technical Support
- Peak-Load Reduction and Load Management
- Industrial and Process Efficiency Analysis
- Data Center Efficiency Analysis
- Energy Procurement Strategies
- Energy Efficiency Retro-Commissioning
- Long-Term Energy and Carbon Management
- CHP & Renewable Generation Project Classifications
- Peak-Load Reduction Plans



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## FlexTech Benchmarking Pilot

The Benchmarking Pilot provides benchmarking and onsite operational assessments. Selected FlexTech Consultants will benchmark participating facilities with U.S. Environmental Protection Agency's (EPA) Portfolio Manager and develop site-specific reports recommending operational or system modifications that may result in energy savings.

- **Who is eligible?**
  - Commercial, industrial and institutional facilities contributing to the electric System Benefits Charge (SBC) and 50,000 square feet or greater.
- **How much funding is available?**
  - The pilot augments traditional FlexTech incentives by providing the first \$7,000 of assistance per building with no cost share required.
    - Additional assistance needed above \$7,000 will be cost shared 50% by the applicant and NYSERDA
- **How can I get started?**
  - Fill out the Benchmarking Referral Form [here](#). Your information will be forwarded to a FlexTech Consultant to begin discussing the participation process.



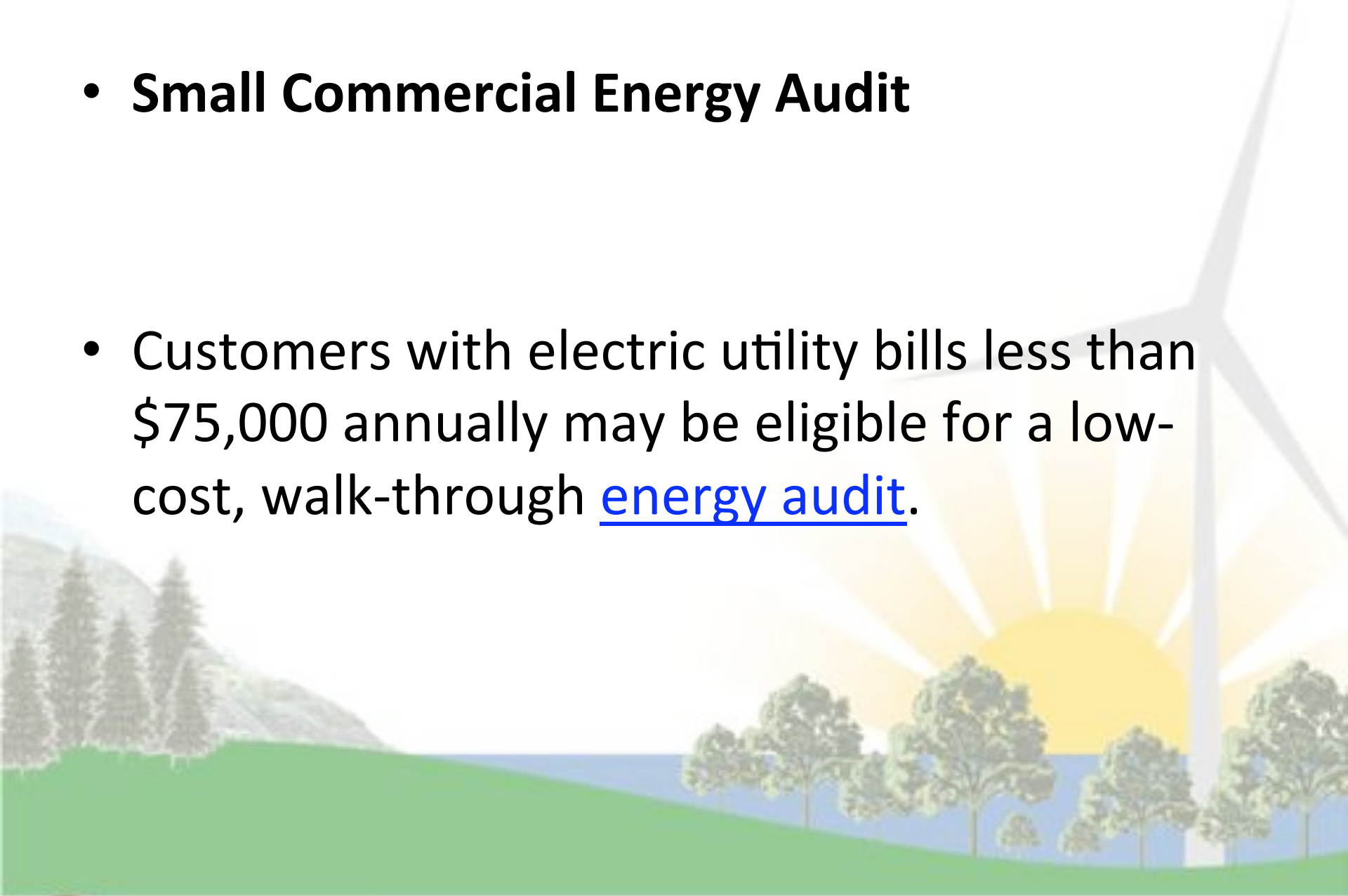
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- **Small Commercial Energy Audit**
- Customers with electric utility bills less than \$75,000 annually may be eligible for a low-cost, walk-through [energy audit](#).



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# Existing Facilities Program

## Existing Facilities Program Overview

The New York State Energy Research and Development Authority's (NYSERDA) Existing Facilities Program offers incentives for a variety of energy projects including Pre-Qualified Measures and Performance-Based Incentives.

### PRE-QUALIFIED INCENTIVES

Pre-Qualified Incentives are provided to encourage applicants to purchase and install more energy-efficient equipment for small-sized energy projects and equipment replacement projects. Incentives are available on a \$/unit basis for Pre-Qualified energy efficiency measures. Applicants can receive up to \$60,000 in Pre-Qualified Incentives (\$30,000 – Electric, \$30,000 – Natural Gas) per Facility per calendar year. National Fuel Gas customers using less than 12,000 Mcf per year can receive a maximum natural gas incentive of \$25,000 per Facility per calendar year. Pre-Qualified Applications can not be submitted online.



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# Existing Facilities Continued...

- Lighting
- HVAC
- Chillers
- Motors
- Interval Meters
- Variable Frequency Drives
- Commercial Refrigeration
- Commercial Kitchen Equipment and Washers
- Gas Efficiency
- Gas Efficiency (National Fuel customers < 12,000 Mcf/year)
- Gas Efficiency (National Fuel customers  $\geq$  12,000 Mcf/year)



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# Even more Existing Facilities stuff!

## PERFORMANCE-BASED INCENTIVES

The Performance-Based incentives component of the Existing Facilities Program offers Performance-Based incentives to customers or ESCO's who are working on large-scale energy efficiency projects. Performance-Based incentives are typically higher than Pre-Qualified incentives but are based on an engineering analysis and are potentially subject to measurement and verification (M&V) requirements.

### Summary of Performance-Based Incentives

Base Incentive	Upstate	Downstate
Electric Efficiency	\$0.12 kWh	\$0.16 kWh
Energy Storage	\$300/kW	\$600/kW
Natural Gas	\$15/MMBtu*	\$20/MMBtu
Combined Heat and Power	\$0.10/kWh + \$600/kW	\$0.10/kWh + \$750/kW
Demand Response	\$100/kW	\$200/kW
Industrial and Process Efficiency	\$0.12/kWh 15/MMBtu	\$0.16/kWh \$20/MMBtu
Monitoring-Based Commissioning	\$0.05/kWh	\$0.05/kWh

\* National Fuel Gas customers who use less than 12,000 Mcf per year can receive \$40/Mcf until November 30, 2010. Starting December 1, 2010 the incentive rate will change to \$15/MMBtu.



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## Industrial and Process Efficiency Program


### Over \$100 Million Available to Improve Productivity and Your Bottom Line

NYSERDA's Industrial and Process Efficiency (IPE) Program provides performance-based incentives to manufacturers and data centers implementing energy efficiency and process improvements which will reduce your costs.

IPE's goal is to help manufacturers and data centers increase product output and data processing as efficiently as possible. Therefore, our incentives are calculated, when appropriate, based on a reduction in energy usage per unit of production or workload.

Incentives are available for:

- New construction and existing facilities
- Manufacturing facilities and data centers
- Electricity and natural gas savings



Manufacturers

Data Centers



#### CONTACT US

The IPE team will work with you to identify projects, visit your site, meet with your team and assist with the application process. To begin working with a member of the IPE Team contact us.



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## New Construction Program

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The New Construction Program (NCP) can provide assistance when incorporating energy-efficiency measures into the design, construction, and operation of new and substantially renovated buildings. These measures are designed to save energy through reduced electric demand, thereby lowering building operating costs.

### Program Highlights

- Technical Assistance is available to help evaluate energy-efficiency measures and provide guidance to your design team on incorporating new and emerging energy-efficient technologies into your building.
- Funding is available to offset the additional costs associated with the purchase and installation of approved equipment.
- Assistance also may be available for commissioning services and green building opportunities.

- Schools
- Colleges and Universities
- Office
- Health Care Facilities
- Municipal
- Retail
- Other



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**PV Incentive Applications and PV Installer Applications  
Accepted August 12, 2010 through December 31, 2015  
By 5:00 PM Eastern Time\***

The New York State Energy Research and Development Authority (NYSERDA) provides cash incentives for the installation by Eligible Installers of new grid-connected Solar Electric or Photovoltaic (PV) systems that are 7kW or less for residential, 25kW or less for not-for-profit and 50 kW or less for commercial sites. Funding for the Solar Electric Incentive Program ("Program") has been allocated by the New York State Renewable Portfolio Standard. The goal of the program is to install 82 MW or 93,806 MWhs of Solar Electric Power systems. Incentives will be granted on a first-come, first-served basis, and PV incentive applications will be accepted through December 31, 2015, or until funds are fully committed, whichever comes first.

PV Incentive Application submission: Eligible Installer must submit one [1] clearly labeled, completed and signed application package as detailed in Attachment A (Customer Step-by-Step Guide) and mail to:

**Solar PV Program PON 2112  
Attn: Program Manager  
NYS Energy Research and Development Authority  
17 Columbia Circle  
Albany, NY 12203-6399**





# Green Jobs - Green New York

The Green Jobs - Green New York (GJGNY) Program provides New Yorkers with access to energy audits, installation services, low-cost financing (currently for residential customers only), and pathways to training for various green-collar careers.

The due date for RFP2038 - Green Jobs Green New York Outreach Program has been changed from 1/12/10 to 2/22/11.

## Small Business and Not-for-Profit

Small Business and Not-for-Profit customers can access the [FlexTech Audit Program](#) to secure a full walk-through audit.

## Workforce Development

[Workforce training programs](#) and other training partnerships are available across the State to encourage the development of a skilled green-collar workforce that supports energy efficiency and the installation of clean technologies.



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## New York State Climate Smart Communities Program

NYSERDA's Focus on Local Government program supports the New York State Climate Smart Communities program, a state and local partnership to encourage climate protection. State entities collaborating on the program include:

- New York State Department of Environmental Conservation (DEC)
- New York State Energy Research and Development Authority (NYSERDA)
- New York State Department of State(DOS)
- New York State Public Service Commission(PSC)

New York State local governments are encouraged to join the Climate Smart Communities program by signing the [Climate Smart Communities Pledge](#), a model resolution that includes all the elements of a successful local climate program.

The [Climate Smart Communities Guide](#) includes information that communities need to become climate smart, including step-by-step guidance for planning and implementing climate smart practices, information on resources and funding, examples of successful implementation, and considerations for measuring and monitoring success.





# Municipal Water and Wastewater Treatment:

## Assistance to Identify and Install Energy-Efficient Equipment and Processes

NYSERDA offers financial assistance to municipalities to identify opportunities for energy-efficiency upgrades in their water and wastewater treatment facilities.

NYSERDA also offers financial assistance to municipalities to install new equipment that will result in increased energy efficiency in their water and wastewater treatment facilities.

### Financial Assistance To Identify Energy-Efficiency Opportunities

NYSERDA cost-shares studies on a 50:50 basis up to a total study cost of \$100,000. Studies include:

- commissioning of existing systems;
- energy-related process improvement guidance;
- assessment of the payback time for equipment replacement;
- assistance with energy-related operations and procedures;
- evaluation of demand management opportunities;
- evaluating the feasibility of on-site electrical generation using either co-generation or an alternative energy source such as biogas.



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# Residential Programs

2011 CALENDAR

ENERGY EFFICIENCY TIPS  
FOR YOU AND YOUR HOME



SAVE MONEY  
AND ENERGY

Click Here to Receive Your  
Complimentary Copy Today!

NYSERDA's residential programs are programs that work - programs that help [homeowners](#) and [renters](#) reduce their energy costs; programs that help [multifamily building owners](#) provide energy-efficient apartments for their tenants; programs that reduce the impact homes have on the environment; and programs that provide [training to contractors](#) on how to provide quality energy efficiency services to their neighbors.

Working with a select group of [contractors](#), [builders](#), [multifamily partners](#), [retailers](#), and [manufacturers](#), we have created a [statewide network of partners](#) who offer energy efficiency solutions that can help reduce your energy usage and costs.

Find the program that can help you become more energy efficient:

- [Owners of Existing Homes](#)
- [Buyers of New Homes](#)
- [Low and Moderate Income Homeowners and Renters](#)
- [Renters](#)
- [Owners and Managers of Existing Multifamily Buildings](#)
- [Developers and Owners of Multifamily Buildings](#)
- [Teachers & Students](#)
- [Shoppers interested in Energy Efficient Products](#)



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# Alternative-Fuel Vehicle Program

NYSERDA provides financial assistance and technical information to encourage fleets to purchase alternative-fuel vehicles (AFVs) and install fueling facilities or charging stations. Vehicles powered by natural gas, propane, and electricity, including certain hybrid-electric vehicles, are eligible under many of the programs NYSERDA offers. Incentives are available to encourage the use of bio-fuels such as ethanol and biodiesel. NYSERDA also has programs to encourage the use of emission reduction technologies and anti-idling technologies for diesel vehicles. [\[Alternative Fuel Types\]](#) [\[Alternative Fuel Vehicles\]](#)

- Transportation accounts for ~70% of the oil consumed in the US.
- Domestically produced fuels are the focus of NYSERDA's programs:
  - Natural gas, propane, electricity, ethanol and biodiesel.
- The Clean Fueled School Bus Program: Provides funds for state and local transit agencies, municipalities and schools for up to 100% of the incremental cost of new alternative-fuel busses and associated infrastructure.
- The New York State Clean Air School Bus Program provides funds to school districts for 100% of the cost to purchase and install emission reducing technology.



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# More Alternative-Fuel Vehicle programs...

- Special projects grants from the Department of Energy are used to provide support for niche applications of AFV's such as airport shuttles, municipal trucks and private delivery vehicles, as well as natural gas and ethanol fueling operations.
- The New York State Clean Cities Challenge awards funds on a competitive basis to fleets for the incremental costs of alternative-fuel vehicles, the cost of installing fueling and recharging equipment, and the incremental costs associated with bulk alternative purchases or contracts to purchase alternative fuels such as E-85 or biodiesel.
- The Biofuel Initiative: Driving Energy Independence for the Empire State provides funding to retail fueling facility owners to dispense E85 Ethanol and blended biodiesel (biofuels), and to petroleum terminal operators to store, blend and dispense biofuels from their rack.
- The Diesel Idling Reduction Program that is currently being developed will fund anti-idling technologies like: electrified parking spaces for trucks, coolant heaters for busses, and auxiliary power units for refrigeration. Watch this site for Program Opportunity Notices (PON's) related to idle reduction.



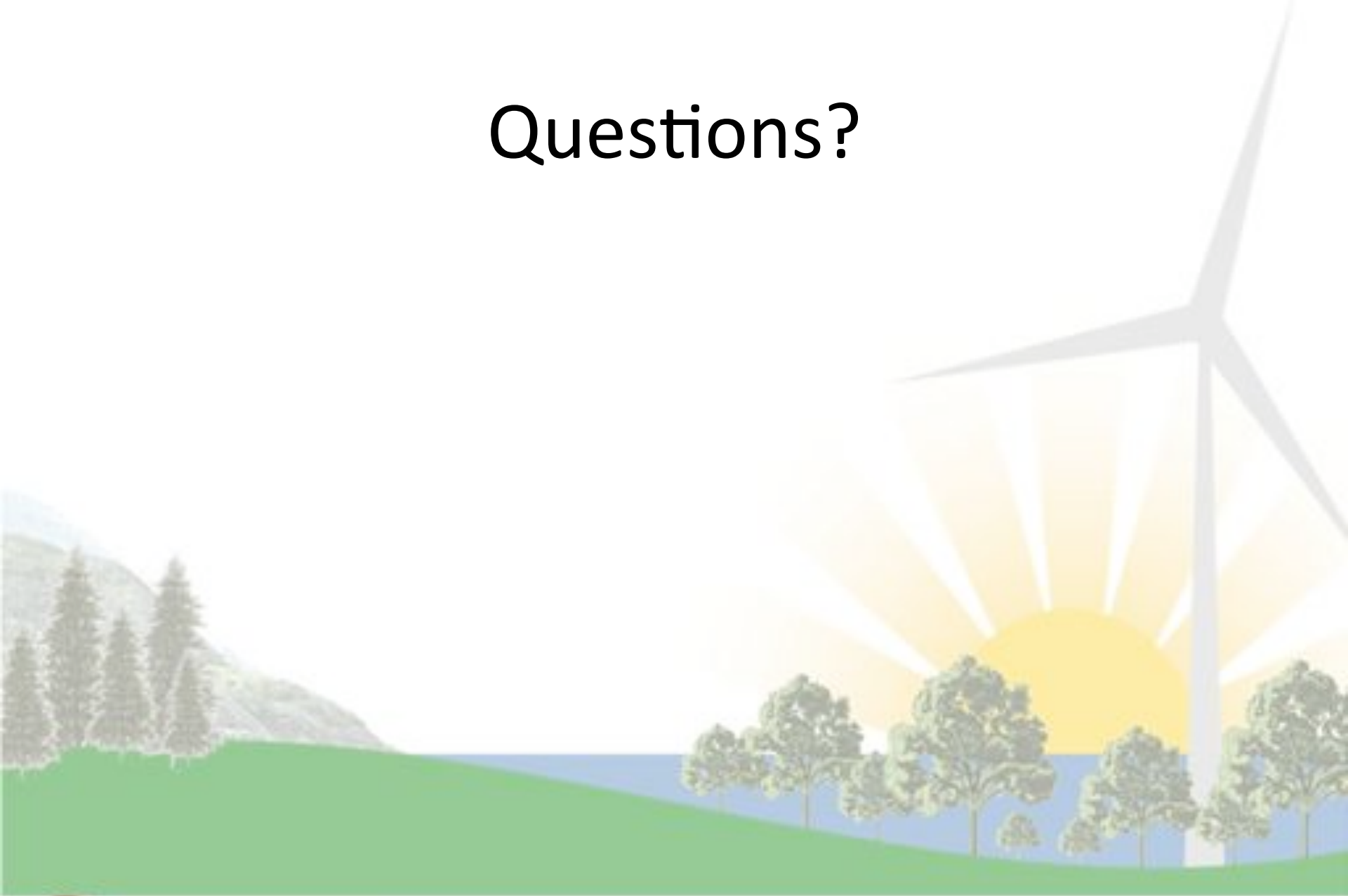
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# Questions?



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# For further information...

- Ann Heidenreich [AHeidenreich@LS-Energy.com]



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2010 Sustainability Award, Runner-Up  
Energy Innovation for Small Communities  
ICLEI Local Governments for Sustainability

# City of Ogdensburg, New York



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# City of Ogdensburg



Population: 12,365

Size: 8.18 square miles

Location: On the St. Lawrence River along the Canadian Border  
in northern New York



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## Energy Sustainability

### Why focus on ghg emissions?



“Global warming is not just an environmental issue. It is an economic issue; a jobs issue; and a public health issue. It is a water resource issue; an agricultural issue; and a quality of life issue. In addition, it is a moral and ethical issue, making it one of the biggest planning issues that faces us today. There needs to be more immediate action addressing the global warming problems that requires all of us to be innovative and proactive.”

- J. Justin Woods, Director of Planning & Development



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# Ogdensburg Actions

- Climate Smart Community Partner
- Joined ICLEI, GHG inventory completed
- NYSERDA Energy Audits on 6 municipal buildings
- NYSERDA LGF Baseline Implementation Report completed
- ARRA grant for WWTP
- ARRA grant for Solar PV Array on Civic Center
- Member Climate Registry
- Entered building into EPA Portfolio Register
- National Grid Lighting Audits
- 10 Percent Challenge
- Energy audits on all Housing Rehabilitation Projects
- All traffic and holiday lights switched to LEDs



# 2009 Baseline Energy Usage

<u>Electricity</u>	<u>Natural Gas</u>	<u>Gasoline</u>	<u>Diesel</u>
4,436,943	190,706 therms	29,993 gal	25,296 gal

## 2009 Greenhouse Gas Emissions

CO <sub>2</sub>	3,302 tons
NO <sub>x</sub>	89,713 lbs
SO <sub>x</sub>	180,510 lbs



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# Waste Water Treatment Plant

Waste Water Treatment Facilities responsible for 66% of Ogdensburg's total energy consumption

## Energy efficiency measures:

- Blower replacement
- Dissolved oxygen monitoring
- Bubble diffuser replacement
- Methane recapture and reuse

## Cost/Savings:

- Cost of installed measures – \$1.210 M
- ARRA grant - \$1.089 M
- Annual savings - \$92,718

## Annual GHG reductions:

CO<sub>2</sub> – 419 US tons

NO<sub>x</sub> – 646 lbs

Sox – 1,266 lbs



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# Additional NYSERDA Projects

2009: Energy Audit Program

- Audits of City Hall, Visitor's Center, Lockwood Arena, DPW, Police Department & Fire Department

2009: ARRA Solar PV Array on Civic Center

2009: NYSERDA Local Government Focus Direct Assistance Program



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# Next steps for 2011

- Complete WWTP Improvements
- Install PV Panels on Lockwood Arena
- Lighting/Energy Improvements from Audits
- Explore/Develop Env. Procurement Policies
- Explore PV for Police & Fire Stations
- Plan Future Green Infrastructure Projects
- Switch City-owned street lighting to LEDs



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# Lessons learned



- Educate people
- Build coalitions
- Sell green by highlighting economic benefits
- Start with low-hanging fruit to build momentum from small successes
- Succeed in raising funds for green projects
- Promote/Celebrate your successes!



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