Energy Efficiency Programs
for Commercial & Industrial Customers

SURE Seminar – Existing Buildings & Conservation
March 22, 2012
Energy Initiative for Upstate NY

- **Vision**
  - Commitment to Energy Efficiency throughout National Grid

- **New York State**
  - National Grid's program was created through the state's Energy Efficiency Portfolio Standard (EEPS)
  - Designed to reduce electricity usage in the state by 15 percent by 2015 (aka "15-by-15")
  - Goal originally proposed under former Gov. Eliot Spitzer; supported today by Gov. Cuomo
  - Effective January 2010 the state Public Service Commission approved the EEPS funded through the SBC charge
National Grid Service Territory
Residential Programs
Residential High-Efficiency Heating Equipment Rebates

Rebate program for residential gas customers who are installing an Air-Conditioning, Heating & Refrigeration Institute (AHRI) qualified furnace, boiler and/or indirect fired water heater.

Reserve funds on-line at www.smartenergy-zone.com/nationalgridny. Submit within 60 days of reservation the rebate form with required documentation to receive rebate.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>REBATE AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot Water Boilers</td>
<td></td>
</tr>
<tr>
<td>Condensing boiler AFUE* ≥ 90% rating</td>
<td>$560</td>
</tr>
<tr>
<td>Non-condensing boiler AFUE* ≥ 85% rating</td>
<td>$350</td>
</tr>
<tr>
<td>Steam Boiler</td>
<td></td>
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<tr>
<td>Steam boiler with electronic ignition AFUE* ≥ 82% rating</td>
<td>$350</td>
</tr>
<tr>
<td>Furnaces</td>
<td></td>
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<tr>
<td>Furnace AFUE* ≥ 94% rating &amp; ECM* motor</td>
<td>$420</td>
</tr>
<tr>
<td>Furnace AFUE* ≥ 92% rating &amp; ECM* motor</td>
<td>$280</td>
</tr>
<tr>
<td>Furnace AFUE* ≥ 90% rating</td>
<td>$140</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>REBATE AMOUNT</th>
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</thead>
<tbody>
<tr>
<td>Water Heater</td>
<td></td>
</tr>
<tr>
<td>Indirect water heater attached to a natural gas ENERGY STAR® hot water boiler with ≥ 85% AFUE*</td>
<td>$210</td>
</tr>
<tr>
<td>Boiler Reset Control</td>
<td></td>
</tr>
<tr>
<td>Add on unit attached to a forced hot water boiler</td>
<td>$70</td>
</tr>
<tr>
<td>Programmable Thermostats</td>
<td></td>
</tr>
<tr>
<td>Contractor-installed ENERGY STAR® rated and/or 7-day programmable thermostats</td>
<td>$18/each</td>
</tr>
<tr>
<td>Maximum two thermostats per gas account.</td>
<td></td>
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</tbody>
</table>

* AFUE – Annual Fuel Utilization Efficiency  
± ECM = Electronic Commutated Motor
Rethink. Recycle. Reward.

Save up to $150 per year in electric costs

Recycle your old, second fridge or freezer and receive a $30 rebate.
- Between 10 and 30 cubic feet
- A secondary unit for at least 6 months

Call 1-877-691-0021 or enroll online at www.nationalgridus.com/FridgeRecycle UNY-NY-RES
EnergyWise Multi-Family Program

Provides incentives for energy efficiency improvements to residents of apartments or condos with 5-50 units per building.

- Free energy evaluation to assess energy usage and increase energy efficiency.
- Free installation of up to ten compact fluorescent bulbs per residence.
- Free installation of low flow showerheads, aerators, hot water pipe and tank wrap.
- $300 rebate towards refrigerator replacement.

Call 1-800-266-9989 to schedule a free, on-site energy assessment.
Small Business Program
Direct Install Program for Small Commercial Customers (≤100kW)
Program Summary

- National Grid Regional Program Administrator (RPA) -- Lime Energy, SmartWatt, or RISE provides proposal including estimated annual savings, project cost, payback.
- Customer signs the contract; the RPA orders and installs energy efficient equipment
- No cost, no obligation audit of lighting and refrigeration equipment
- National Grid pays up to 70% of the project cost; customer pays the remainder which appears on the electric bill.
  - Financing option: 12 or 24 months, interest free
  - One lump sum option: customer share discounted 15%
Customer Eligibility

Individual Electric Meters under 100kW monthly peak demand are eligible

Billed Demand Last 12 months

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Minimum</td>
<td>10.5</td>
</tr>
<tr>
<td>Maximum</td>
<td>14.5</td>
</tr>
<tr>
<td>Average</td>
<td>12.4083</td>
</tr>
</tbody>
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300 Erie Blvd West
Syracuse NY 13202-0960
Energy Initiative Program
Energy Initiative Program

Our programs are designed to provide solutions for businesses to save money, improve energy performance, and reduce greenhouse gas emissions by:

- Providing financial incentives and technical assistance to offset the cost of replacing inefficient equipment or systems. This will:
  - Reduce operating costs
  - Increase productivity
  - Reduce carbon foot-print

- Integrate gas and electric energy efficient opportunities for existing buildings and equipment
How Do I Qualify?

Customer must pay into System Benefits Charge (SBC)

- **Electric**: Customers on Rates 2, 3, 3A, & 7
- **Gas**: Firm customers on Rates 2, 3, 5, 7 & 8
- Retrofit - for existing buildings only; no new construction (includes Time of Replacement and Comprehensive Analysis)
- Cannot receive an incentive from National Grid and an incentive from NYSERDA for the same measure
Customer Incentive Options...

**PRESCRIPTIVE**
- Fixed incentives paid for installation of specific, predetermined energy efficiency measures and equipment.
  - Eligible equipment must have specified energy efficiency ratings
  - Examples: Lighting, Lighting Controls, Air Compressors, EMS

**CUSTOM**
- Includes measures not covered under the prescriptive incentives.
- Requires a technical analysis of proposed energy measures and associated energy savings to determine incentive amount. Incentives are generally the lesser of:
  - Up to 50% of the installed cost which includes labor and equipment
  - A buy-down of equipment costs equal to a six months or a one-year payback
Electric Programs
Commercial & Industrial Customers

Energy Efficiency
Prescriptive Measures - Electric

- Measures include:
  - Lighting systems and controls
  - Compressed Air
  - Energy Management Systems

- Eligible equipment will have energy efficiency rating specifications

- Project Information Form (PIF)
  - Key to start the process (application)
  - It can be completed by you, your vendor, your National Grid Account Executive, or a National Grid Commercial Energy Consultant

- Pre-inspection of existing equipment by a National Grid representative is required for all applications
Lighting System Guidelines

- Facility lighting must average 2,000 hrs/year minimum (1,000 hrs/yr for a municipality)

- All fluorescent Fixtures must have new T8 or T5 lamps and new electronic ballasts; no incentives for lamp only conversions

- All fluorescent fixtures with high performance T8 lamps and ballasts must meet the Consortium for Energy Efficiency's (CEE) High Performance T8 or Reduced Wattage T8 specification
  Refer to: www.cee1.org

- All solid state lighting (SSL) also known as LED technology must be on National Grid’s Pre-Qualified LED Eligible product list or on the Energy Star list or Design Lights Consortium list:
  - Energy Star  Refer to: www.energystar.gov
  - Design Lights Consortium (DLC)  Refer to: www.designlights.org
Compressed Air Systems

- Compressed air is a vital part of industrial operations powering pneumatic equipment and industrial processes.
- It is often thought of as a “free” source of energy when in fact it is one of the least efficient and most expensive in the industry. Even the smallest compressed air system can be a relatively large component of energy consumption and cost.
- Fortunately, many simple and very cost effective changes can be made to improve efficiency

### Prescriptive High Efficiency Air Compressor Incentives

<table>
<thead>
<tr>
<th>Horsepower</th>
<th>Incentive per HP Load/No Load</th>
<th>Incentive per HP Variable Speed</th>
<th>Incentive per HP Variable Displacement</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 15 to &lt; 25</td>
<td>$205</td>
<td>$275</td>
<td>N/A</td>
</tr>
<tr>
<td>≥ 25 to &lt; 50</td>
<td>$180</td>
<td>$280</td>
<td>N/A</td>
</tr>
<tr>
<td>≥ 50 to &lt; 75</td>
<td>$180</td>
<td>$210</td>
<td>$215</td>
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</table>
Energy Management Systems (EMS)

- An energy management system (EMS) is an indispensable tool for improving the energy efficiency of heating, ventilation, and air conditioning systems.
- Continuing advances in technology have made EMS systems cost-effective for smaller facilities.

**EMS**

<table>
<thead>
<tr>
<th>Total Square Footage of the Building</th>
<th>Incentive Amount per Point</th>
<th>Maximum Number of Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,000 - 40,000</td>
<td>$225/pt</td>
<td>16</td>
</tr>
<tr>
<td>40,001 - 80,000</td>
<td>$275/pt</td>
<td>48</td>
</tr>
<tr>
<td>80,001 &lt; 200,000</td>
<td>$225/pt</td>
<td>128</td>
</tr>
</tbody>
</table>

**Vending Misers**

<table>
<thead>
<tr>
<th>Description</th>
<th>Incentive per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigerated Beverage Vending Machine</td>
<td>$55.00</td>
</tr>
<tr>
<td>Non-Refrigerated Snack Vending Machine</td>
<td>$30.00</td>
</tr>
<tr>
<td>Glass Front Refrigerated Coolers</td>
<td>$75.00</td>
</tr>
</tbody>
</table>

**Hotel Occupancy Sensors**

<table>
<thead>
<tr>
<th>Description</th>
<th>Incentive per Sensor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel Occupancy Sensors</td>
<td>$75</td>
</tr>
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</table>
Custom Programs

- National Grid is committed to designing and evaluating customized energy-savings programs that fit the way your company operates including incentives that reduce the cost of implementation
  - Custom projects are generally defined as anything that is not prescriptive and has opportunity for significant energy savings
  - In general, both building system applications and process applications

- Custom incentives will be the lesser of either:
  - Up to 50% of the installed costs
  - A buy-down of equipment costs equivalent to a one-year payback (six months for large industrial customers).

Examples include:
  - Large Compressors > 75 HP
  - LED Lighting Applications
  - Variable Speed Drive
Gas Programs
Commercial & Industrial Customers
Gas Prescriptive Programs

- **Programs Include:**
  - Gas High-Efficiency Heating Equipment Program
  - Natural Gas Prescriptive Controls
  - Steam Traps and Steam Trap Surveys
  - Roof/Attic, Wall and Pipe Insulation
  - Commercial Gas Fired Kitchen Equipment

Gas: High-Efficiency Heating and Hot Water Equipment

- The High-Efficiency Heating program can be used for existing buildings, **new construction** and fuel conversions.
- Incentives are provided to reduce the cost difference between standard efficiency and high-efficiency equipment.

<table>
<thead>
<tr>
<th>Product and Rating</th>
<th>Incentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Furnace (≤ 300 MBH)</td>
<td>Up to $400</td>
</tr>
<tr>
<td>Condensing Unit Heater (151 to 400 MBH)</td>
<td>$500</td>
</tr>
<tr>
<td>Infrared heaters (all sizes) Low Intensity</td>
<td>$500</td>
</tr>
<tr>
<td>Steam Boiler (≤ 300 MBH)</td>
<td>$600</td>
</tr>
<tr>
<td>Hydronic Boilers 85% (≤ 300 MBH to 1701 MBH and larger)</td>
<td>Up to $4,000</td>
</tr>
<tr>
<td>Condensing Boiler 92% (≤ 300 MBH to 1701 MBH and larger)</td>
<td>Up to $12,000</td>
</tr>
<tr>
<td>Indirect-fired water heaters</td>
<td>Up to $300</td>
</tr>
<tr>
<td>Integrated Water Heater/Non-Condensing Boiler 85% AFUE</td>
<td>$1,000</td>
</tr>
</tbody>
</table>
Gas: Prescriptive Controls

Complements a high-efficiency heating system; gain higher efficiencies and even lower operating costs.

Incentives include:

- 7 day programmable thermostats, $25 each (up to five units)
- Single-stage boiler reset controls, $150 each (up to two units)
- Multi-stage boiler reset controls, $250 each (up to two units)
- Steam traps, $25 each for (up to 100 units)
Gas: Steam Trap Survey

Save energy and money by properly managing your steam traps—improve efficiency and reliability in steam systems.

- National Grid will fund 25% of the cost of a steam trap survey, to a maximum of $2,500
- Opt to complete at least 50% of the recommended repairs to receive additional 25% of the survey cost (up to $2,500)
- The maximum funding cap is $5,000
- Plus, receive $25 per trap installed
Gas: Insulation

For businesses heating with natural gas

Incentives include:

- Pipe insulation, $1.50 per linear ft. (up to 500 lin. ft)

- Roof/Attic or Wall Insulation, 20% of installed cost (maximum incentive $10,000)

- Custom incentives available for larger projects
Don’t Miss a Kitchen Equipment Opportunity

Enjoy shorter cook times, higher production rates, and a lower idle energy rate.

- Rebates are available to increase the affordability of high-efficiency gas-fired commercial kitchen equipment:
  - Energy Star® Commercial Fryer - $1,000
  - Energy Star® Commercial Convection Oven - $1,000
  - Energy Star® Commercial Steamer - $500
  - Commercial Rack Oven - $1,000
  - Commercial Conveyor Oven - $1,000
  - Commercial Combination Oven - $800

- Qualifying Energy Star® Equipment can be found at: www.powerofaction.com/kitchen

Restaurants that invest strategically can cut utility costs 10% to 30% without sacrificing service, quality, style or comfort.
Custom Programs

- Tailored to a customer’s unique needs, custom gas incentives are offered to help customers target energy efficient opportunities.

- Gas Custom measures are defined as anything that is not included in the prescriptive programs and may include:
  - Combustion controls on boilers
  - Re-using waste heat to pre-heat water/air
  - Stack economizers
  - Any improvement that results in substantial energy savings

- Pre-approved projects receive a one-time incentive based on estimated first-year therm savings up to 50% of project costs, to a maximum of $250,000 for existing facilities.
Technical Assistance
for Commercial & Industrial Customers
Technical Assistance (TA) Study

Engineering study to identify, understand and assess opportunities for reducing operating costs associated with the investment of energy efficient equipment.

- We provide access to technical experts who:
  - Evaluate potential energy efficiency opportunities
  - Calculate any financial incentives that may be available

- Sample Studies include:
  - Energy Management Systems (EMS)
  - Multiple Compressor Applications
  - Most studies show 10-20% savings in existing buildings
  - Combustion controls on boilers
  - Re-using waste heat to pre-heat water/air

- Cost:
  - National Grid will typically pay 50% of the cost up to a maximum of $10,000

CNY Service Contracts:
- O’Brien & Gere
- C&S Companies
- An assessment may also be provided by independent consultants / engineering firms with pre-approval from National Grid’s Technical Representative
Next Steps
for Commercial & Industrial Customers
Next Steps

- Do you have capital or maintenance project planned?
  - There may be energy savings.
- Need help in identifying opportunities?
  Contact your local CEC to schedule a no-cost walk-through of your facility.
- There may be other incentives available through state or federal entities to further offset the cost of installation.
### Energy Efficiency Team – Upstate NY

#### National Grid C&I Energy Efficiency

#### Regional Contacts

### UNY Commercial Energy Consultants by Region

<table>
<thead>
<tr>
<th>REGION</th>
<th>NAME</th>
<th>OFFICE PHONE</th>
<th>EMAIL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upstate NY Commercial Leader</strong></td>
<td>Laurie Poltynski</td>
<td>518-433-3797</td>
<td><a href="mailto:laura.poltynski@us.ngrid.com">laura.poltynski@us.ngrid.com</a></td>
</tr>
<tr>
<td>Capital/ Northeast</td>
<td>Jim Baker</td>
<td>518-433-3505</td>
<td><a href="mailto:james.baker@us.ngrid.com">james.baker@us.ngrid.com</a></td>
</tr>
<tr>
<td>Albany, Schenectady, Troy,</td>
<td>Khaled Halabi</td>
<td>518-433-3704</td>
<td><a href="mailto:khaled.halabi@us.ngrid.com">khaled.halabi@us.ngrid.com</a></td>
</tr>
<tr>
<td>Hudson, Cobleskill, Amsterdam,</td>
<td>Dan Merrill</td>
<td>518-433-3741</td>
<td><a href="mailto:daniel.merrill@us.ngrid.com">daniel.merrill@us.ngrid.com</a></td>
</tr>
<tr>
<td>Gloversville, Saratoga, Glens</td>
<td>Nathaniel Hancock</td>
<td>518-433-3795</td>
<td><a href="mailto:nathaniel.hancock@us.ngrid.com">nathaniel.hancock@us.ngrid.com</a></td>
</tr>
<tr>
<td>Falls, Ticonderoga</td>
<td></td>
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</tr>
<tr>
<td>Central</td>
<td>Amy Dickerson</td>
<td>315-452-7509</td>
<td><a href="mailto:amy.dickerson@us.ngrid.com">amy.dickerson@us.ngrid.com</a></td>
</tr>
<tr>
<td>Syracuse, Fulton, Cortland</td>
<td>George Baier</td>
<td>315-452-7742</td>
<td><a href="mailto:george.baier@us.ngrid.com">george.baier@us.ngrid.com</a></td>
</tr>
<tr>
<td>Oswego, Pulaski</td>
<td></td>
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</tr>
<tr>
<td>Mohawk Valley</td>
<td>Adam Partyka</td>
<td>315-798-1988</td>
<td><a href="mailto:adam.partyka@us.ngrid.com">adam.partyka@us.ngrid.com</a></td>
</tr>
<tr>
<td>Utica, Rome, Herkimer, Oneida</td>
<td>Tom Higgins</td>
<td>315-798-5158</td>
<td><a href="mailto:thomas.higgins@us.ngrid.com">thomas.higgins@us.ngrid.com</a></td>
</tr>
<tr>
<td>Northern</td>
<td>Becky Badalato</td>
<td>315-785-7227</td>
<td><a href="mailto:becky.badalato@us.ngrid.com">becky.badalato@us.ngrid.com</a></td>
</tr>
<tr>
<td>Watertown, Lowville, Potsdam,.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Ogdensburg, Lake Placid, Malone, Saranac Lake</td>
<td></td>
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</tr>
<tr>
<td>Frontier/Western</td>
<td>Dan Keating</td>
<td>716-831-7795</td>
<td><a href="mailto:daniel.keating@us.ngrid.com">daniel.keating@us.ngrid.com</a></td>
</tr>
<tr>
<td>Buffalo, Niagara Falls, Olean, Angola, Lakewood, Dunkirk, Batavia, Brockport, Medina, Albion</td>
<td>Jonathan Nickerson</td>
<td>716-831-7735</td>
<td><a href="mailto:jonathan.nickerson@us.ngrid.com">jonathan.nickerson@us.ngrid.com</a></td>
</tr>
<tr>
<td></td>
<td>Kevin McQuiggan</td>
<td>716-831-7754</td>
<td><a href="mailto:kevin.mcquiggan@us.ngrid.com">kevin.mcquiggan@us.ngrid.com</a></td>
</tr>
</tbody>
</table>
# Energy Efficiency Team – NY

| UNY Energy Efficiency Technical Support Consultants |
|--------------------------------------|-------|----------------|----------------|
| Manager Technical Support | Paul Gister | 716-831-7753 | paul.gister@us.ngrid.com |
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| Capital/Northeast | Gene Hickok | 518-433-3316 | eugene.hickok@us.ngrid.com |
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| Frontier/Western | Martin Hudi | 716-831-7755 | martin.hudi@us.ngrid.com |
| Frontier/Western | Carl Forster | 585-344-5825 | carl.forster@us.ngrid.com |
Thank You

Visit our Website:
https://www1.nationalgridus.com/EnergyEfficiencyPrograms

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