



Natural Gas Energy Efficiency
programs for 2010

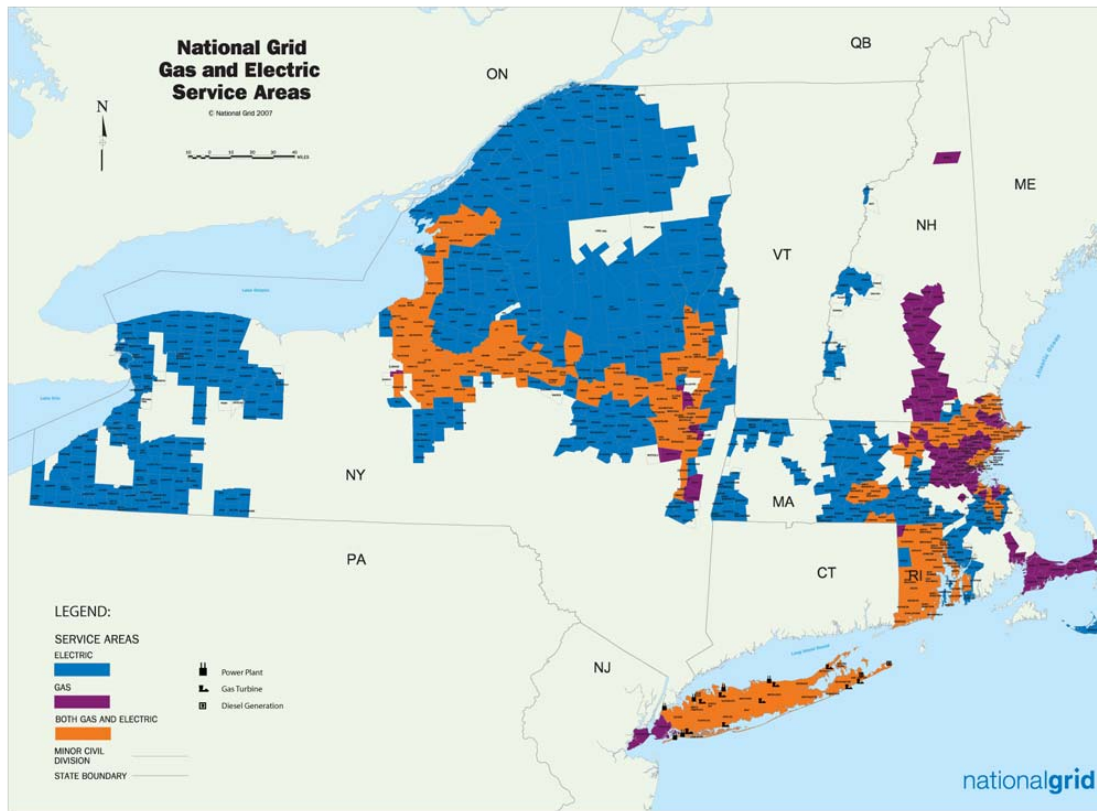
nationalgrid

The power of action.SM
nationalgrid

The power of action.SM

National Grid: an international electricity and gas company

National Grid Electricity and Gas Service Areas - US



Largest utility in UK; second largest in US*

- ◆ 50% UK, 50% US
- ◆ 50% Electricity, 50% Gas
- ◆ 50% Transmission, 50% Distribution
- ◆ 27,000-plus employees
- ◆ Almost 18 million customers

Northeast US

- ◆ Distributes electricity to 3.3 million customers
- ◆ Services 1.1 million customers of Long Island Power Authority (LIPA)
- ◆ Provides natural gas to 3.5 million customers
- ◆ Currently owns over 4,000MW of generation

*Based on customer numbers; includes the servicing of LIPA's 1.1 million customers

Background

- ◆ The programs are customer funded through an on bill DSM/SBC
- ◆ Both Gas and Electric customers pay this fee
- ◆ Programs are designed to provide an incentive for customers to select high efficiency equipment over standard efficiency
- ◆ Incentives are calculated to offset the upfront cost associated with higher efficiency equipment
- ◆ Utilities regulated by the states to administer programs cost effectively
- ◆ There are performance based incentives to the shareholders for the programs meeting goals
- ◆ Efficiency programs save customers over \$250 million annually

The New 3 Year Plan breaks new ground...

- ◆ No state has achieved and maintained these levels of savings
- ◆ The ramp is steep — 70% savings increase 2009 to 2010 for large business
- ◆ Consistent, state-wide programs, application forms, marketing, incentives.
- ◆ Emphasis on gas and electric integration
- ◆ “Diving Deeper” by providing more comprehensive energy solutions for customers.
- ◆ Financing is key component
- ◆ All utilities will have standardized programs across MA
- ◆ C&I custom incentives no longer \$\$/therm, going to 50% of eligible cost capped at \$100K/site/year
- ◆ Prescriptive incentives for insulation is going to become custom incentives, @ 50% of eligible cost capped at \$100K/site/year

Commercial and Industrial Electric Efficiency Programs

Large Business Program

Energy Initiative – “Retrofit”

- ◆ Existing buildings and equipment
 - ◆ Replaces inefficient equipment or systems
 - ◆ Reduces owners operating costs
 - ◆ Incentives up to 50% of total costs
-

Design 2000_{plus} – “Time Dependent”

- ◆ New Construction
- ◆ Major renovation
- ◆ Failed Equipment
- ◆ Incentives up to 75% of incremental costs



MA Commercial & Industrial Gas Program Design

Budget and goal increases from 2010-2012

	C&I Budget	C&I therm savings
2010	\$7.3M	3M
2011	\$11.1M	4.7M
2012	\$14.7M	6M

Small/Medium Business Electric Energy Efficiency Programs

Direct Install Program – Gas & Electric

- ◆ **Customers with average demand of less than 300 kW are eligible**
- ◆ **Designed to provide turnkey, energy efficiency services including no-cost audit, project proposal and direct installation of energy efficient equipment**
- ◆ **National Grid pays the vendor 100% of the total project cost**
- ◆ **Customer repayment (30%) can be paid through:**
 - ◆ Lump sum with a 15% discount
 - ◆ On bill as a line item (OBF), interest free for 24 months

1-800-332-3333

Small Business Program

Merrimack River Valley House - Lowell MA

“our new bulbs are much, much brighter but use on average only one third of the energy”

Primary Measures –Lighting, Occupancy Sensor

Project Cost: \$6104.68

Standard Co-pay if financed = \$1831.00

Customer Actual Co-Pay = \$1556.69

Estimated Annual Savings = \$4012

Estimated payback = 5 months

If financed, positive cash flow day one, \$182 per month

Gas Utility 3 year Plan

Gas Incentive Programs

Incentives amount is based on cost instead of them savings

- **Retrofit** - incentives for EE measures before the equipments end of life, example Boiler 20 years
- Incentive is 50 % of eligible project cost
- **Lost opportunity/New Construction** – incentives for equipment replaced beyond end of life or new construction
- Incentive is 75% of incremental High Efficiency Cost

Incentives can only be paid when a project is determined to have a BCR greater than 1.0.

Natural Gas Project

The Farnsworth House

owned by The not for profit Charles H. Farnsworth Housing Corp., Managed by Rogerson Communities

75 units of very low income housing for Boston's elderly population

The Project

Removed 5 twenty five year old oil fired boilers operating at approximately 70% efficiency

Installed three 92% efficient condensing gas boilers for heat and hot water

National Grid rebate of \$30,900

High Efficiency Boiler Simple Payback without incentive = 3 years

High Efficiency Boiler Simple Payback with incentive = 1.2 years

MA, NH, RI Commercial Gas HEHE Program potential incentives for 2010

Furnace 92+ AFUE (<150)	\$400
Furnace 92+ AFUE (<150) w/ECM Motor	\$500
Furnace 94+ AFUE (<150) w/ECM Motor	\$650
Steam boiler	\$200
Condensing boiler <= 300 mbh	\$1000
Hydronic boiler <= 300 mbh	\$500
Infrared heater	\$500
On demand, Tankless Water Heater >=.82	\$700
Indirect Water Heaters	\$500

MA, NH, RI Commercial Gas HEHE Program potential incentives for 2010

Condensing boiler 301-499 mbh	\$3,000
Condensing boiler 500-999 mbh	\$5,000
Condensing boiler 1000-1700 mbh	\$10,000
Condensing boiler 1701+ mbh	\$15,000
Hydronic boiler 301-499 mbh	\$2,000
Hydronic boiler 500-999 mbh	\$2,500
Hydronic boiler 1000-1700 mbh	\$3,500
Hydronic boiler 1701+ mbh	\$5,000

Proposed 2010 Commercial Kitchen Incentives

Fryers \$1000

Ovens \$1000

- Convection
- Rack
- Combination
- Conveyor

Griddles \$500

Steam Cookers \$1000

On Demand Tankless H2O heater \$700

FREE pre-rinse spray valves!

<https://www.powerofaction.com/kitchen>

MA, NH, RI Commercial Gas HEHE Program potential incentives for 2010

2009 High-Efficiency Heating and Water Heating Rebates

List of qualifying equipment is at www.ahrirectory.org

CONDENSING UNIT HEATERS

Condensing unit heaters (151 to 400 MBH)	90% Thermal Efficiency ¹	\$500
--	-------------------------------------	-------

DIRECT FIRED HEATERS²

Direct fired heaters/direct fired makeup air (up to 1500 MBH)	\$1,000
Direct fired heaters/direct fired makeup air (1501 to 3000 MBH)	\$1,500
Direct fired heaters/direct fired makeup air (over 3000 MBH)	\$2,000

INFRARED HEATERS

Infrared heaters (all sizes)	Low Intensity	\$500
------------------------------	---------------	-------

STEAM

Steam (up to 175 MBH)

HYDRONIC

Hydronic (up to 175 MBH)

Hydronic (175 to 301 MBH)

Hydronic (301 to 500 MBH)

Hydronic boilers (500 to 999 MBH)	85% Thermal Efficiency ¹	\$2,500
Hydronic boilers (1000 to 1700 MBH)	85% Thermal Efficiency ¹	\$3,500
Hydronic boilers (1701 MBH and larger)	85% Thermal Efficiency ¹	\$5,000

CONDENSING BOILERS

Condensing boilers (up to 174 MBH)	92% AFUE* or greater	\$1,000
Condensing boilers (175 to 300 MBH)	92% AFUE* or greater	\$2,000
Condensing boilers (301 to 499 MBH)	92% Thermal Efficiency ¹	\$3,000
Condensing boilers (500 to 999 MBH)	92% Thermal Efficiency ¹	\$5,000
Condensing boilers (1000 to 1700 MBH)	92% Thermal Efficiency ¹	\$10,000
Condensing boilers (1701 MBH and larger)	92% Thermal Efficiency ¹	\$15,000

INDIRECT FIRED WATER HEATERS

Indirect fired water heaters (up to 50 gallon storage)	\$100
Indirect fired water heaters (50 gallon storage and larger)	\$300

Be careful!! MA & NH condensing boilers are at 90%, RI is at 92%. Some of the other smaller incentives are different between each state (i.e., direct fired heaters)

All rebates are subject to change without notice.
All MBH levels are based on the units output.

SOME RESTRICTIONS MAY APPLY. REBATE OFFERS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

nationalgrid

The power of action.

SAVE STEAM NOW PROGRAM

Steam Trap survey

National Grid will pay 25 % of a steam trap survey up to \$2500.

Once survey is complete and at least 50% of the recommended repairs have been completed and paid for, National Grid will pay an additional 25% of the survey costs up to \$2500.

Customers also eligible for prescriptive incentives for complete steam trap replacements (\$75/trap), rebuilt traps are not eligible

Steam System Engineering Study –

Complete analysis of your steam system with recommendations for energy efficiency improvements – using SSAT, SSST, & 3E Plus

National Grid pays 50% of the study up to \$10,000

Benefit Cost Ratio (BCR) Screening Tool

The BCR is a way of stating whether the project is cost-effective by examining Societal Costs specific to the measure level.

Projects with savings greater than 5,000 therms will need to be screened for cost effectiveness using the BCR Tool.

Incentives can only be paid when a project is determined to have a BCR greater than 1.0.

Residential Weatherization, Home Performance with ENERGY STAR (Pending DPU approvals)

- ◆ The programs increase efficiency through consumer education and installation of home weatherization measures
 - Attic / Wall insulation
 - Basement or crawl space insulation
 - Heating system / duct pipe insulation
 - Ductwork leakage testing and sealing
 - Air infiltration testing and sealing
 - Customers qualify for incentives of 75% of the total cost of insulation up to \$2000

- ◆ Income-Qualifying Customers
 - An energy audit is conducted and gas measures installed (*up to \$4,500*) at no cost to income-eligible customers.
 - The weatherization program is targeted to discounted residential customers at 60% of median income and below.

- ◆ Multi-Family (Units of 5 or more)
 - Energy Audits performed on all units and common space Gas utility covers 50% of cost for Weatherization & Air Sealing

It's easy to get started...

- Call MassSAVE (1-4 units) 1-800-889-0096
- Call EnergyWISE (5 or more units) 1-800-889-0096

High-Efficiency Heating & Water Heating Equipment (Pending DPU Approvals)

◆ High-Efficiency Heating

◆ Gas Furnaces

- \$400 rebate on Furnaces (forced hot air) 92%+ AFUE* Rating
- \$500 rebate on Furnaces (forced hot air) 92%+ AFUE* Rating and ECM motor
- \$650 rebate on Furnaces (forced hot air) 94%+ AFUE* Rating and ECM motor
 - Electric pays \$200 for ECM motor electric savings

◆ Gas Boilers

- \$500 rebate on Hydronic Boilers (forced hot water) 85%+ AFUE* Rating
- \$1,000 rebate on Hydronic Boilers (forced hot water) 90%+ AFUE* Rating
- \$1000 rebate on Combined 90% AFUE Boiler w/ on demand hot water (non condensing)
- \$1600 rebate on Combined 90% AFUE Boiler w/ on demand hot water (condensing)

High-Efficiency Gas Water Heating

◆ Indirect Water Heater

- \$500 rebate for installation of an indirect water heater attached to an ENERGY STAR® forced hot water boiler

Tankless/ On Demand Water Heater

- \$700 rebate for residential customers installing an on-demand/tankless water heater with and Energy Factor of .82 or greater and electronic ignition

Stand Alone Water Heater

- \$50 rebate for a water heater with an Energy factor of 0.62 or greater

Condensing Gas Water Heater

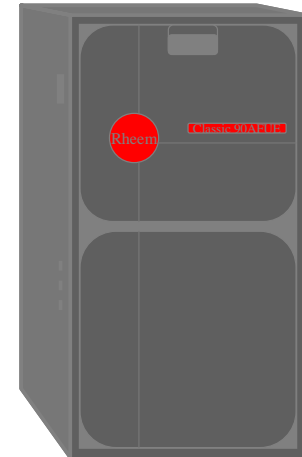
- \$500 rebate

◆ Thermostats

- \$25 rebate for up to two qualifying thermostats

◆ Boiler Reset Controls

- \$200 rebate for qualifying equipment



Utility 3 year Plan

Early retirement incentive

- \$2500 incentive to replace Heating Equipment 20 to 40 years old

ENERGY STAR® Homes program (Pending DPU Approvals)

New Construction

Builders in Municipal electric communities who heat with individual gas meters are now eligible for full incentives.

- ◆ Up to \$8000 in incentives
- ◆ Full HERS (Home Energy Rating Scale) rater fees now covered under gas program
- ◆ Additional incentives for high efficiency heat and hot water equipment
- ◆ Call 1-800-628-8413 or visit www.massenergystarhomes.com for eligibility and program guidelines



National Grid Energy Efficiency - We're Here to Help!

RESIDENTIAL PROGRAMS

- ◆ *Electric* 1.800.322.3223
- ◆ *Natural Gas* 1.800.292.2032

COMMERCIAL PROGRAMS

- ◆ *Electric* 1.800.787.1706
- ◆ *Natural Gas* 1.800.843.3636

Visit www.thinksmarthinkgreen.com
for more information on all our programs

