

Retrofit Program

The Retrofit Program is a specially designed program for commercial and industrial customers who intended to help replace older, inefficient equipment and systems with new energy efficient technologies. The Retrofit Program provides customers both financial incentives and technical services to help facilitate the installation of premium efficient equipment. Call National Grid to arrange a convenient time for an inspection of your existing equipment.

Prescriptive Retrofit Application & Instructions

For Replacement of Operating Equipment

1. Is your project eligible?

- Equipment shall be new and shall be installed in a commercial, industrial, institutional, educational, or municipal building within a National Grid's service territory

2. Is the equipment you intend to buy eligible?

- Product types listed on this form are eligible for prescriptive incentives. However, additional measures not listed here may be eligible for custom incentives using the Custom Retrofit Application.

3. Pre-Approval requirements:

- Contact National Grid **before** purchasing and installing the equipment
- To see if the energy efficient measure (EEM) qualifies for an incentive:
 - i. Submit a completed application form with an authorized signature and after reading the Terms and Conditions governing the program.
 - ii. Submit a copy of the Manufacturer's technical specification sheets ("cut sheets") for each type of eligible equipment to be purchased
 - iii. Once pre-approved, a "pre-approved incentive letter" will be issued

4. Installation and incentive requirements:

- Once pre-approved, purchase and install the qualifying equipment within twelve (12) months of National Grid's pre-approval
- Return the required information to National Grid once your project has been complete:
 - a) A copy of the completed and signed pre-approved application.
 - b) A copy of the pre-approval incentive letter
 - c) Manufacturer's technical specification sheets ("cut sheets") for each type of eligible equipment purchased are required.
 - d) A copy of your invoice indicating Proof of Purchase must indicate type, size, make, and model number of the equipment and date of purchase and installation must accompany each incentive application form.
 - e) At the post-installation verification, the customer is required to sign the post-installation customer acknowledgement section of the original application.

Program details:

This incentive program covers applications created on or after January 1, 2010. Details of this Program, including incentive levels, are subject to change without prior notice. Contact National Grid for the latest program details.

2010 Energy Management Systems

40 Sylvan Road, Waltham, MA 02451-1120
 Tel: 1-800-787-1706 / Fax: 781-522-1069
 E-mail: business@us.ngrid.com
www.nationalgridus.com

Customer Information

COMPANY NAME _____ APPLICATION DATE _____

INSTALLATION SITE _____ PHONE NUMBER _____

CONTACT PERSON _____ FAX NUMBER _____

E-MAIL ADDRESS _____ SQ. FT. (covered by this application) _____

STREET ADDRESS _____ CITY _____ STATE _____ ZIP _____

MAILING ADDRESS (if different) _____ CITY _____ STATE _____ ZIP _____

ELECTRIC COMPANY NAME _____ ELECTRIC ACCOUNT # (or copy of electric bill) _____

GAS COMPANY NAME _____ GAS ACCOUNT # (or copy of gas bill) _____

BUILDING TYPE: (select one) **TOTAL FACILITY SQ. FT.** _____

<input type="checkbox"/> Assembly	<input type="checkbox"/> Fast Food	<input type="checkbox"/> Hotel	<input type="checkbox"/> Multi Story Retail	<input type="checkbox"/> Religious	<input type="checkbox"/> Small Retail
<input type="checkbox"/> Automobile	<input type="checkbox"/> Full Service Restaurant	<input type="checkbox"/> Large Refrigerated Space	<input type="checkbox"/> Multifamily high-rise	<input type="checkbox"/> K-12 Schools	<input type="checkbox"/> University
<input type="checkbox"/> Big Box	<input type="checkbox"/> Grocery	<input type="checkbox"/> Large Office	<input type="checkbox"/> Multifamily low-rise	<input type="checkbox"/> Small Office	<input type="checkbox"/> Warehouse
<input type="checkbox"/> Community College	<input type="checkbox"/> Heavy Industrial	<input type="checkbox"/> Light Industrial	<input type="checkbox"/> Other _____		
<input type="checkbox"/> Dormitory	<input type="checkbox"/> Hospital	<input type="checkbox"/> Motel			

Payment Method

CHECK PAYABLE TO: Customer
 Fill in data below Vendor/Installer

TAX ID# _____ **COMPANY TYPE:** Check one: Incorporated, Not Incorporated, Exempt

Vendor Information

VENDOR/INSTALLER _____ **STREET ADDRESS** _____

CONTACT PERSON _____ **CITY** _____ **STATE** _____ **ZIP** _____

PHONE NUMBER _____ **E-MAIL** _____

Customer Acknowledgement

Pre-Installation — I certify that all statements made in this application are correct to the best of my knowledge and that I have read and agree to the Terms and Conditions on the back of this form. **ANTICIPATED COMPLETION DATE:** _____

AUTHORIZED SIGNATURE _____ **NAME (print)** _____ **DATE** _____

Post-Installation — I certify that I have seen the Energy Efficiency Measures that have been installed and I am satisfied with their installation.

AUTHORIZED SIGNATURE _____ **NAME (print)** _____ **DATE** _____

For Program Administrators Only

Required Inspections	Date	Inspector	Project Costs:	
Pre-Inspection:			Labor \$:	
Post Inspection:			Material \$:	
Approval	Date	Program Manager		
Pre-approved Incentive:				
Final Incentive:				

EMS Requirements:

1. To qualify for an incentive, the building's new energy management system (EMS) must incorporate all EMS strategies listed if they are appropriate to the facility and equipment. Only EMS points associated with control of non-lighting electric end uses and gas end uses are eligible for incentives (i.e., fuel controls, lighting controls and alarm points are not eligible).
2. Only the installation of a new EMS or expansion of an existing system to control additional equipment is eligible for incentives. EMS must be installed in an existing building on existing equipment. The replacement of an operating EMS or existing control points or a software upgrade is not eligible for incentives. The installation of EMS on new equipment is not eligible for incentives.
3. An EMS shall include a central operator's station including a central processing unit, PC (local or remote), monitor and printer. The operator's station shall be capable of monitoring all sensors and field devices in real time. Communications shall be via modem, communications bus, wireless device or internet connection to other microprocessor-based field services.

Table 1A: EMS Incentives

Measure Description		Maximum Unit Incentive / Eligible Points	Maximum Number of Points		Minimum Efficiency Incentive Criteria
Energy Management Systems Conditioned space controlled <i>(See Req. 1,2,3 above)</i>					Facility must have electric air conditioning and/or electric/gas heat. EMS to include, if applicable: 1. Optimal start/stop 2. 7-day scheduling 3. Economizer or enthalpy control 4. Direct digital temperature control for air handling units.
5,000 – 40,000 Sq. Feet		\$225/point	<i>(up to 20 points)</i>		
Total Sq. Feet			Total # of Points		
40,001 - 80,000 Sq. Feet		\$300/point	<i>(up to 60 points)</i>		
Total Sq. Feet			Total # of Points		
80,001 Sq. Ft. to < 200,000 Sq. Ft.		\$200/point	<i>(up to 160 points)</i>		
Total Sq. Feet			Total # of Points		

Table 1B: Documentation Required to Complete EMS Form

Seq.	Description	Completed
1	Complete Table 1D: "EMS — Equipment Inventory List," Survey of Controlled Equipment" (page 3)	<input type="checkbox"/> Yes
2	Attached points list for all controls being installed. Include point type and description	<input type="checkbox"/> Yes
3	Attach complete sequence of operations	<input type="checkbox"/> Yes
4	Complete Table 1E: "Energy Management Summary" (page 4)	<input type="checkbox"/> Yes
5	Attach manufacturers' performance for all controlled equipment including model numbers and efficiency levels	<input type="checkbox"/> Yes
6	Complete Table 1A: EMS Incentives including the total square feet controlled and the total number of control points.	<input type="checkbox"/> Yes

Table 1C: EMS — Equipment Specification (Facility Detail)

Building Type and Description	Building Conditioned Space Controlled (Sq. Ft.)	Building Control System Description	Annual Energy Use		Estimated Energy Savings	
			kWh	Fossil Fuel	kWh	Fossil Fuel

Table 1D: EMS — Equipment Inventory List — Survey of Controlled Equipment

Equipment ID	Location	Area Served	HP/kW/Tons/etc	Current Operating Schedule	Future Operating Schedules	Control Strategy
Example 1. Hot water pump P-1	Boiler Room	West Wing AHUs	20 hp nameplate 10.2 kW measured (5.088 hrs.)	October 1-April 30 24 hrs/day	October - April when OAT <52F (4.414 hours)	EMS will schedule to run based on date and outdoor air temperature
Example 2. RTU-2	Roof NW	Second Floor Offices	5 hp supply fan 10 ton AC, 14 kW est. total	Runs "fan auto" 7 days/24 hours/day	Fan on 7am-5pm, 5 days/week. Cooling as required. Night setback by 5 degrees.	EMS will run during work days from 7am- 5pm. Cooling will cycle on to maintain setpoint.

Table 1E: Energy Management Summary

Equipment Controlled	Connected kW	No. of Input/ Output Points	Schedule Operating Hours				Control Strategies (indicate with an "X")					
			Before EMS		After EMS		7-day Schedule	Optimal Start/Stop	Night Setback	DDC Temp. Control	CHW Reset	Enthalpy Economizer
			Hrs/Wk	Wks/Yr	Hrs/Wk	Wks/Yr						
Cooling Equipment — Variable Load Factors												
Chillers												
Pumps – w/VSDs (CHW or CW)												
Condenser Fans												
Cooling Tower Fans												
DX Compressors												
Heating Equipment — Variable Load Factors												
HW Pumps (VSD)												
Electric Boiler												
Baseboard Heating												
Electric Heat												
Year Round Equipment — Variable Load Factors												
Heat Pumps												
Fans – VAV												
Electric Reheat												
Constant Load Factors												
Circ. Pumps – CHW & CW												
Circ. Pumps – HW												
Heat Recovery Pumps												
Fans – Supply												
Fans – Exhaust												
Other Type of Loads												
Lighting												
Other												

Hotel Occupancy Sensors Eligibility Requirements and Incentive Detail

Eligibility Requirements for Hotel Sensors:

1. Sensors must control PTAC, heat pump units or fan coil units
2. PTAC's must have electric heat to be eligible
3. The control must include:
 - (a) occupancy detectors
 - (b) window/door switches for rooms that have operable windows or patio doors
 - (c) set back to 65°F in the heating mode and set forward to 78°F in the cooling mode when unoccupied detector is in unoccupied mode
4. Sensors controlled only by a front desk system are not eligible
5. Replacement or upgrade of occupancy based HVAC controls are not eligible
6. Hotels must operate 12 months of the year
7. Total quantity of eligible sensors cannot exceed the total quantity of room HVAC units controlled

Table 2A: Hotel Occupancy Sensors Incentives

Quantity of Sensors	Unit Incentive	Total Incentive	Heat Source Cooling Provided by	Equipment Capacity BTUH or Tons
	\$75/Sensor	\$	<input type="checkbox"/> Heat Pump <input type="checkbox"/> PTAC with Electric Heat	
	\$75/Sensor	\$	<input type="checkbox"/> Heat Pump <input type="checkbox"/> PTAC with Electric Heat	