

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 Compressed Air

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:				

Table 1: Prescriptive High Efficiency Air Compressor Incentives

Horsepower	Incentive per HP Load/No Load	Incentive per HP Variable Speed or Variable Displacement
>15 to <25	\$205	\$275
>25 to <50	\$180	\$280
>50 to <75	\$180	\$210

Table 2: Storage Incentives

Incentive per Gallon
\$2.75

Table 3: Compressed Air System Incentive Calculations

Air Compressor Description (Manufacturer & Model)	Rated HP & CFM	Operating PSI	Control Type	Primary Storage	Hours/Wk and Loading	Compressor Loading (% Rated CFM)	Incentive Dollar per HP	Requested Incentive Dollars
Example: Gardner Denver Modulating 50 HP Model: #ABCDEF	50 HP 220 cfm	110 psi	Mod	100 gal	90 hrs/wk	10hr@90% 30hr@30% 50hr@60%		
Existing:								
Proposed:							\$	\$

Table 4: Compressor Storage Incentive Calculations

Air Compressor CFM	Compressor Control Type: L/NL, VSD or VD*	Required Storage in Gallons (A)	Existing Storage in Gallons (B)	Additional Storage in Gallons (C) = (A - B)	Incentive per Gallon (C) x \$2.75	Requested Incentive Dollars
Existing:						
Proposed:					\$	\$
Total Requested Incentive from Compressed Air and Storage						\$

* Control Type: L/NL - Load/ No Load VSD - Variable Speed Drives VD - Variable Displacement

Compressed Air Eligibility Requirements and Incentive Details

Prescriptive incentives are available for air compressors in accordance with the following rules.

- Accessory devices that will be installed along with compressors will be handled as separate stand alone Custom Approach while the compressor, receiver for the same project continue on the standard prescriptive incentive track. Examples of such accessories include; low pressure drop filters and zero loss drains.
- Proposed compressor installations that satisfy all the requirements of the Prescriptive Approach, that also include significant energy conservation measures involving modifying the distribution system or reducing air consumption at the end uses, may apply for incentives under the Custom Approach.

A. Prescriptive High Efficiency Air Compressor Incentives

1. Only new oil flooded rotary screw compressors for single compressors systems are eligible for prescriptive incentives. For scroll, reciprocating and oil free compressors follow the Custom Approach.
2. Projects replacing the following types of compressors are not eligible: Rotary screw compressors with; Load/No Load, variable displacement or variable speed drive controls and reciprocating compressors.
3. Only compressors with nameplate horsepower equal to or greater than 15 HP and less than or equal to 75 HP are eligible for Prescriptive incentives. For compressors with capacity rated in kW, rating shall be converted to HP for compliance check $[= (kW) / (.746kW/HP)]$.
4. Prescriptive incentives are only applicable to oil flooded Rotary Screw Compressors. Oil free units must use the Custom Approach.
5. Proposed compressor must have; Load/No Load, Variable Speed Drive or Variable Displacement capacity control.
6. Prescriptive incentives are only applicable to compressors that operate at 145 psi or below.
7. Primary storage is required on all projects
 - a. For load/no load machines the minimum requirement is 4 gallons per acfm of compressor capacity.
 - b. For VFD or Variable Displacement machines, the minimum requirement is 2 gallons per acfm of compressor capacity
 - c. Where the limitations on the size range of available storage vessels (400 or 600 gallons etc) requires the purchase of more then the minimum required storage volume, an incentive will be provided for up to 1gallon/acfm compressor capacity beyond the required minimum.
Example: if calculated minimum is 460 gallons, standard storage available is 600 gallons, 75 acfm compressor rating, the incentive paid is for 535 gallons. (460 + 75 = 535) Assumes there is not existing storage.
 - d. Storage from any existing tank mounted compressors remaining on site may not be counted toward minimum requirements.
 - e. Contact your National Grid representative for assistance with storage rules.
8. Compressors must run a minimum of 2,000 hours a year. To calculate run hours, include only the hours that the end uses supplied by the compressor are operational, not the operating hours of the facility.
9. Compressors with VFDs must have as a minimum a 3% impedance series reactor in its AC power input connection.
10. Provide a cut-sheet on compressor that states capacity (CFM) at the operating pressure specific to this project.

Important VSD Information

VSDs can be sensitive to over-voltages that occur when power factor correcting capacitor banks on the utility power system are switched on. To qualify for an incentive payment, each VSD must include a series reactor (inductor, choke) in its AC input connections. Your VSD supplier should assist in the sizing of the reactor. Minimum requirement is a 3% impedance reactor, based on the horsepower of the VSD to be installed.

In some instances your supplier may find it necessary to install 5% reactors and, rarely, additional filtering devices to meet acceptable current and voltage harmonic distortion requirements.

If your power factor is less than 0.8 (80%), we recommend that you consider power factor correction concurrent with the installation of drives.

The use of VSDs which incorporate pulse width modulation (PWM) may produce over-voltages which may cause premature failure of AC induction motors not rated for use with an inverter. We recommend that when installing PWM drives, you consider utilizing inverter rated motors.