

PGW EnergySense Construction Grant Programs

BIA Philadelphia
April 28, 2020

Agenda

- 
- PGW EnergySense Portfolio
 - Efficient Construction & Efficient Building Grants
 - Case Studies
 - Application Process
 - Residential Construction Grants
 - Residential & Commercial Equipment Rebates
 - Q & A

EnergySense Portfolio Overview

| Commercial & Industrial | Residential |
|--|---|
| Construction Grants <ul style="list-style-type: none">▪ Up to \$60,000 for design upgrades above energy code Efficient Building Grants <ul style="list-style-type: none">• Up to \$75,000 for efficiency improvements Equipment Rebates <ul style="list-style-type: none">• Commercial boilers• Commercial domestic hot water heaters• Steam traps• Food service equipment | Construction Grants <ul style="list-style-type: none">▪ Up to \$750 for new construction Equipment Rebates <ul style="list-style-type: none">▪ Furnaces▪ Boilers |

- Rebates and grants available through August 31, 2020
- Awarded on first-come, first-served basis, subject to availability

COMMERCIAL GRANTS

EFFICIENT CONSTRUCTION GRANTS

Benefits of Energy-Efficient Construction

- Lowers operating costs per square foot
- Improves tenant retention
- Increases property value
- Boosts occupant comfort
- Increases worker productivity

Efficient Construction Grants: Eligibility

- New construction and gut-rehabilitation of commercial, multifamily or industrial buildings
- **New Construction:** new building, or space within a building, where a licensed, professional architect or engineer prepares and certifies plans
- **Gut-Rehab:** major renovation where **at least two** building systems are being replaced or redesigned **AND** the renovations trigger compliance with the Energy Code
- **Firm rate customers with single fuel, natural gas heat**

Efficient Construction Grants

- Up to **\$60,000** per property
- Must save at least 15% above 2009 IECC
- Savings based on:
 - Energy model, or
 - Full set of building plans
- **PGW should be engaged early in the process**

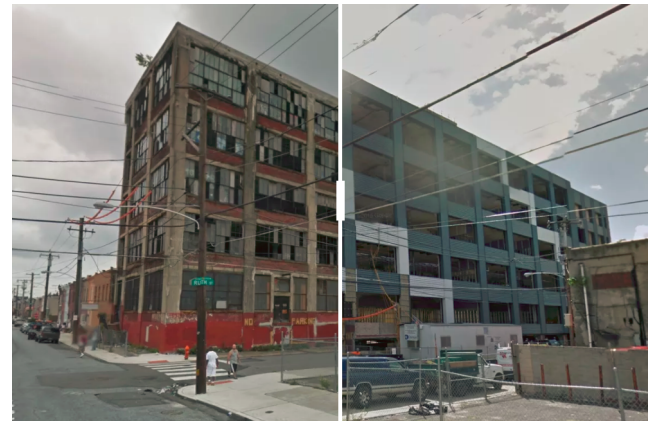
| Energy Savings Above 2009 IECC | Grant Amounts Per First-Year MMBtu Saved |
|-----------------------------------|---|
| $\geq 15\%$ to $< 20\%$ | \$13 |
| $\geq 20\%$ to $< 30\%$ | \$24 |
| $\geq 30\%$ | \$40 |

EFFICIENT CONSTRUCTION GRANT CASE STUDY

Efficient Construction Grant

Case Study: Orinoka Civic House

- **\$60,000** awarded for affordable housing project
- Measures included:
 - Furnaces
 - Water heaters
 - Insulation
 - Low-flow devices



Source: Curbed Philly; Google Streetview 2011 vs. September 2016

EFFICIENT BUILDING GRANTS

Efficient Building Grants: Eligibility

- Grants for comprehensive energy efficiency upgrades to existing commercial, multifamily or industrial buildings
- **All natural gas conservation measures considered, including but not limited to:**
 - Space heating
 - Water heating
 - Heat recovery systems
 - Boiler reset controls
 - Building shell improvements
- **Firm rate customers with single fuel, natural gas heat**

Efficient Building Grants

- Up to **\$75,000** available per project
 - Incentives offered at 33% of incremental cost for each installed measure
- **Baseline verification of existing conditions required before work begins**
- Post-completion QA required
- Comprehensive packages involving combinations of end-uses are given preferential consideration

EFFICIENT BUILDING GRANT PROJECT EXAMPLE

Efficient Building Grants Example

- A 99-unit apartment building is performing the following upgrades to their building:
 - Replacing existing boilers with three, 725 MBH 96% E_t natural gas boilers
 - Replacing existing water heaters with two, 200 MBH 96% E_t natural gas water heaters
 - Adding insulation (R-50) to their existing 20,000 sq. ft. roof (R-5)
 - Installing faucet aerators in each apartment
 - Installing low-flow showerheads in each apartment

Efficient Building Grants Example

- The boilers and water heaters will receive the prescriptive commercial equipment rebates:
 - A 725 MBH boiler receives a \$4,200 rebate
 - 3 x 725 MBH boilers rebates = \$12,600

| Commercial Boiler Rebates | | |
|---------------------------|---------|---------|
| Size (kBtu/h) | 85% Et | 90% Et |
| 300-499 | \$800 | \$2,900 |
| 500-699 | \$1,400 | \$3,600 |
| 700-899 | \$2,000 | \$4,200 |

- A 200 MBH water heater receives a \$4/kBtu rebate
 - 2 x \$4/kBtu * 200 kBtu = \$1,600

| Commercial Domestic Hot Water Heaters | |
|---------------------------------------|----------------|
| Minimum Efficiency | Rebate Amount |
| = 94% Et | \$4 per kBtu/h |

Efficient Building Grants Example

- It costs **\$50,000** for R-20 insulation to bring the existing roof to code
- It costs **\$70,000** for R-50 insulation as per the proposed roof design
- Therefore, the incremental cost for this measure is **\$20,000**.
- The measure is deemed cost-effective based on energy savings, with the incentive being 33% of the incremental cost
 - The incentive for this measure is **\$6,600**

Efficient Building Grants Example

- The faucet aerators cost **\$1,980**
- The low-flow showerheads cost **\$2,970**
- Since these two measures aren't required by code, the incremental cost will be the entire cost of the measure

- The measures are deemed cost-effective based on energy savings, with the incentive being 33% of the incremental cost
 - Faucet aerators receive a **\$653** incentive
 - Low-flow showerheads receive a **\$980** incentive

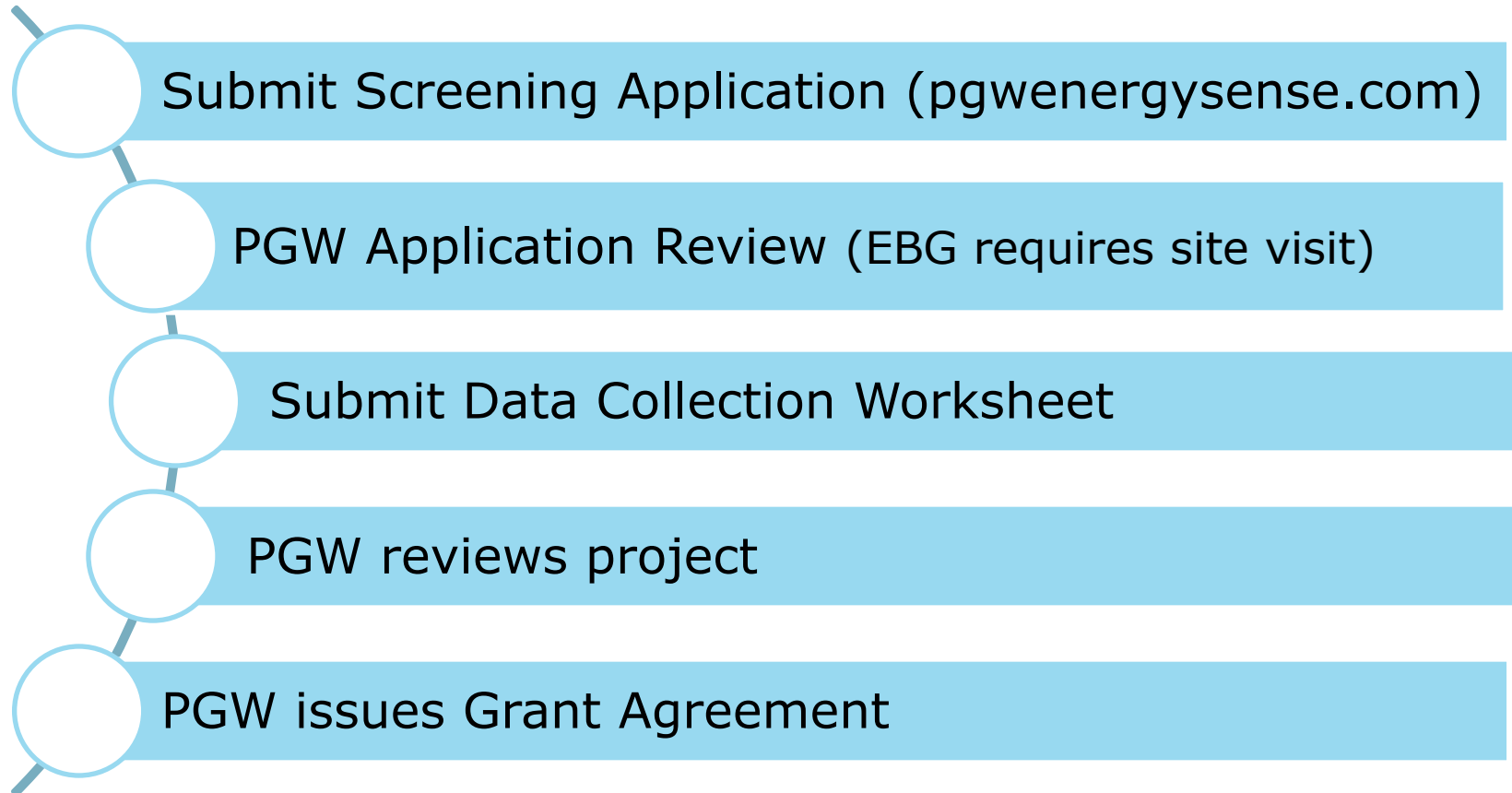
Efficient Building Grants Example

- This project is then eligible for the following grant amount:
 - Boilers: \$12,600
 - Water heaters: \$1,600
 - Roof insulation: \$6,600
 - Faucet aerators: \$653
 - Low-flow showerheads: \$980

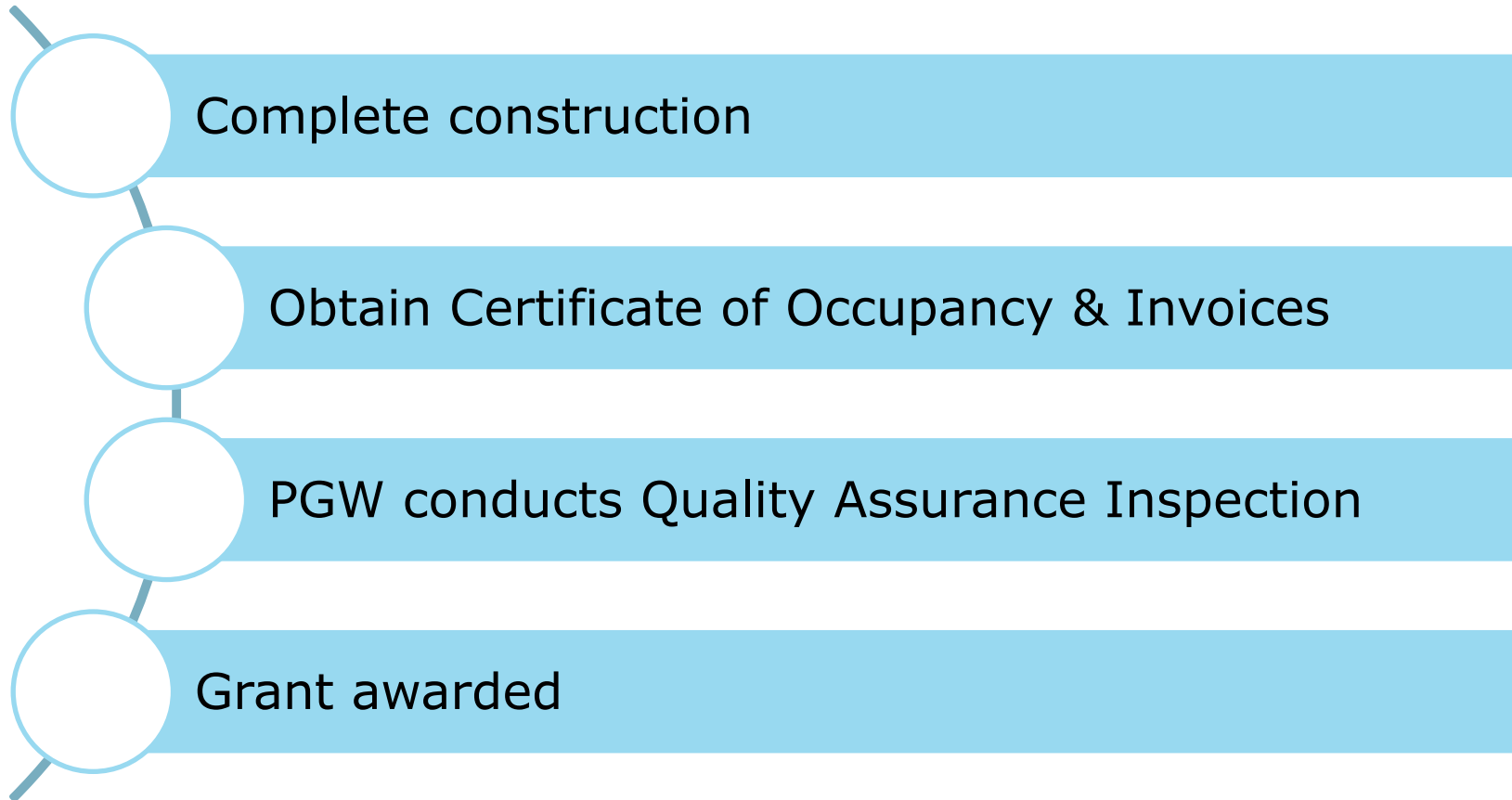
 - **Total Grant Amount: \$22,433**

APPLICATION PROCESS

Grant Application Process

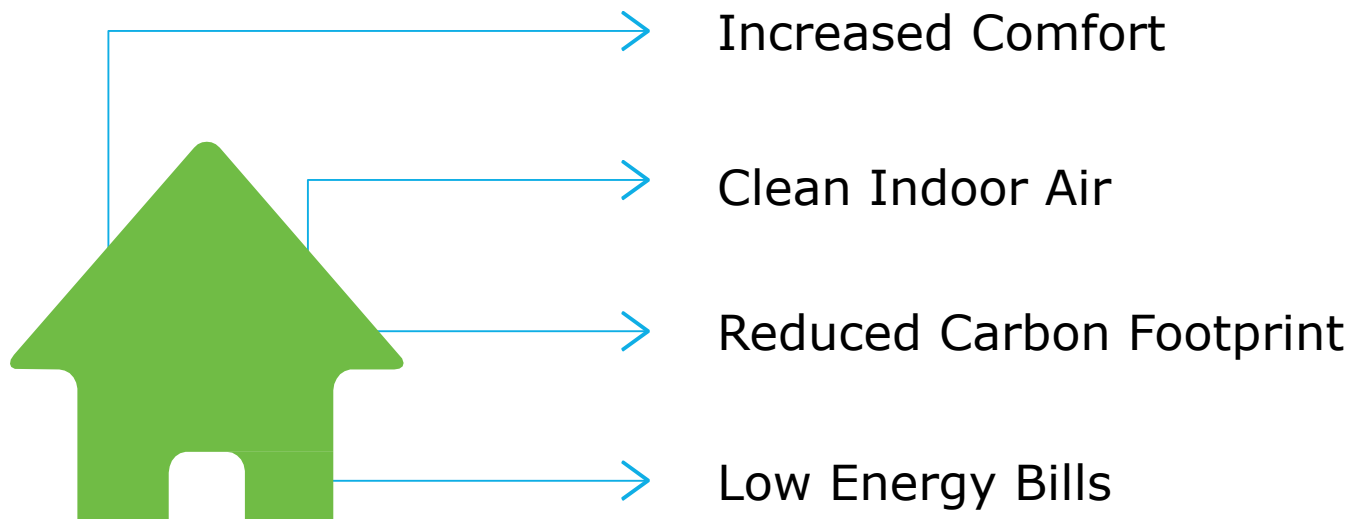


Grant Application Protocol – cont'd



RESIDENTIAL GRANTS

Benefits of Energy-Efficient Residential Construction



Residential Construction Grants - Eligibility

- **Eligibility:**
 - Single-family, detached or rowhomes
 - Duplex properties
 - Multifamily: 1-15 single-family homes of same design

- **Incentives:**
 - **Up to \$750**
 - Must be $\geq 20\%$ more efficient than 2009 IECC

Residential Construction Grants - Eligible Measures

| Measure | Minimum Efficiency |
|-----------------------------------|--------------------|
| Building Envelope | |
| Exterior Insulation | R-19 |
| Heating Systems | |
| Boilers | 90% AFUE |
| Furnaces | 90% AFUE |
| Heat Pump with Gas Backup | 8 HSPF |
| Domestic Hot Water Systems | |
| Water Heaters | 0.67 EF |
| Tankless Water Heaters | 0.82 EF |
| Low Flow Showerheads | 1.5 GPM |
| Faucet Aerators | 1.5 GPM |

RESIDENTIAL EQUIPMENT REBATES

Residential Equipment Rebates

| Eligible Equipment* | First Unit | Additional Units |
|-------------------------|----------------|------------------|
| 94% AFUE Furnace | \$500 | \$250 |
| 94% AFUE Boiler | \$1,500 | \$800 |



* < 3kBtu/h

Residential Equipment Rebates

- A "Project" is an installation at a single building address by the property owner, manager or contractor.
- Examples:
 - Installing eligible furnaces in 5 townhouses would earn \$2,500 (\$500 for each building)
 - Installing eligible furnaces in a 5-unit apartment building would earn \$1,500 (\$500 for the first and \$250 for each of the remaining 4 units)

Residential-Sized Equipment Application



Apply online by visiting www.pgwarebates.com

Furnace and Boiler Rebates for Primary Residence Application - Page 1

Promotion Dates: 9/1/2016 – 8/31/2020

You must complete page 2 of this application form; use additional pages if needed.

| Qualifying Products | Criteria | Rebate Value* | Invoice Date |
|--|--|--|--|
| Natural Gas Boiler 94% AFUE or greater | Efficiency Level (AFUE) must be 94% or greater | \$1,500 First Unit in Project \$800 Additional Units in Project | / / *A "Project" is an installation at a single building address by the property owner, manager or developer. |
| Natural Gas Furnace 94% AFUE or greater | Efficiency Level (AFUE) must be 94% or greater | \$500 First Unit in Project \$250 Additional Units in Project | |
| | | | |

To receive your PGW rebate check by mail, follow these steps:

- Purchase the Qualifying Product(s) within the eligible promotion dates. Equipment should be installed by a licensed contractor. Ask your contractor to provide a list of qualifying equipment options and reference the listings at www.AHRIdirectory.org to ensure you meet the 94% AFUE criteria for this program.
- Install the product(s) where there is an active meter using PGW services. Account must be active at the time of payout to be eligible for the rebate.
- Mail the following to the address below:
 - This rebate form, completed accurately and legibly. Lenditor/building owner is responsible to acquire and provide valid PGW account information for each installed equipment purchase.
 - A legible copy of your dated invoice that shows retailer/contractor name, address, phone number, invoice date, description, manufacturer, model, quantity, purchase price and proof of payment.
 - If applicable, include a copy of the AHRI certificate for the model purchased. To obtain a copy of the certificate, visit www.AHRIdirectory.org.
 - A copy of your most recent PGW bill. Providing a copy of a recent gas bill will help reduce rebate processing time.

Mail to: PGW EnergySense Rebate Program, 40 West Evergreen Ave. Suite 110, Philadelphia, PA 19118

- Visit www.pgwarebates.com or call 855-749-7658 for program updates, questions or to track the status of your rebate.

| | | | | | |
|--|--|--|--|---|--|
| *PGW Account Number | | *First Name | | *Last Name | |
| *Billing Address (Your rebate check will be mailed to the address provided in this field) | | | | | |
| *City | | *State | | *Zip Code | |
| Email (Used to send status updates regarding this application) | | | | <input type="checkbox"/> Opt-in I'd like to learn more about PGW's EnergySense programs and offers. | |
| Service/Installation Address (Required if different from above) | | City | | State Zip Code | |
| Is the installation address a rental property? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | |
| *Contractor Name | | Contractor Email (Used to send updates regarding PGW programs) | | | |
| *Contractor Address | | *City | | *State *Zip Code | |
| How did you hear about PGW rebates? <input type="checkbox"/> PGW Bill/Newsletter <input type="checkbox"/> pgworks.com <input type="checkbox"/> Contractor/Plumber <input type="checkbox"/> Supply House <input type="checkbox"/> Family/Friend <input type="checkbox"/> Radio Ads <input type="checkbox"/> Online Ads <input type="checkbox"/> Newspaper Ads <input type="checkbox"/> Online Search <input type="checkbox"/> Community Event <input type="checkbox"/> Other: | | | | | |
| I understand PGW reserves the right to audit my rebate application and if requested, will allow PGW representatives reasonable access to verify the installation of qualifying product(s) at the service address listed above. | | | | | |
| If you are a tenant, you are responsible for obtaining the property owner's permission to install the equipment for which you are applying for a rebate. I warrant that my signature on this application indicates that I have obtained the property owner's permission. I understand and agree that: (i) my responsibility for (ii) meeting program requirements, and (iii) complying with federal, Commonwealth, county and city laws, regulations, codes, ordinances and requirements; and (iv) properly owner/condominium/owner association's requirements, restrictions, codes, ordinances, rules and regulations concerning the measures and installation. | | | | | |
| Signature | | | | Date | |

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Page 1 of 2



Furnace and Boiler Rebates for Primary Residence Application - Page 2

Complete section(s) below for EACH eligible equipment installed.

*Denotes Required Fields

| | | | | |
|-------------|-----------------|---|---------------|-------------------|
| PRODUCT - 1 | *Select One | *AHRI Certificate # | *Serial # | *Capacity (abun) |
| | First Unit | <input type="checkbox"/> \$1,500 Boiler <input type="checkbox"/> \$800 Furnace | | |
| | Additional Unit | <input type="checkbox"/> \$800 Boiler <input type="checkbox"/> \$250 Furnace | *Manufacturer | *Model # AFUE (%) |
| | | | | |

| | | | | |
|-------------|-----------------|---|---------------|-------------------|
| PRODUCT - 2 | *Select One | *AHRI Certificate # | *Serial # | *Capacity (abun) |
| | First Unit | <input type="checkbox"/> \$1,500 Boiler <input type="checkbox"/> \$800 Furnace | | |
| | Additional Unit | <input type="checkbox"/> \$800 Boiler <input type="checkbox"/> \$250 Furnace | *Manufacturer | *Model # AFUE (%) |
| | | | | |

| | | | | |
|-------------|-----------------|---|---------------|-------------------|
| PRODUCT - 3 | *Select One | *AHRI Certificate # | *Serial # | *Capacity (abun) |
| | First Unit | <input type="checkbox"/> \$1,500 Boiler <input type="checkbox"/> \$800 Furnace | | |
| | Additional Unit | <input type="checkbox"/> \$800 Boiler <input type="checkbox"/> \$250 Furnace | *Manufacturer | *Model # AFUE (%) |
| | | | | |

| | | | | |
|-------------|-----------------|---|---------------|-------------------|
| PRODUCT - 4 | *Select One | *AHRI Certificate # | *Serial # | *Capacity (abun) |
| | First Unit | <input type="checkbox"/> \$1,500 Boiler <input type="checkbox"/> \$800 Furnace | | |
| | Additional Unit | <input type="checkbox"/> \$800 Boiler <input type="checkbox"/> \$250 Furnace | *Manufacturer | *Model # AFUE (%) |
| | | | | |

You must complete this page of the application form; use additional pages if needed. Only enter total rebate amount once if more than 4 units were purchased and installed. Eligible products will be combined into one rebate check for payment, per application submission.

TOTAL # OF UNITS: _____ | TOTAL REBATE AMOUNT EXPECTED: \$ _____

(I) IMPORTANT: Photocopy your entire submission for your records. You could be required to mail, e-mail or fax these photocopies. Rebate checks will be mailed to qualifying customers within 4-6 weeks of the postmark date on your qualified application. To review the status of your application or to ask questions, call 1-877-768-7658 or visit www.pgwarebates.com at any time. Your right to receive this rebate will not be earned unless you purchase a qualifying appliance and follow each of the steps above. Your failure to satisfy each of these Conditions of Acceptance is a rejection of this rebate offer. Purchases from online auctions are not eligible. This rebate cannot be combined with any other PGW rebate, unless approved in writing by PGW. Rebates are only available for purchases served by PGW Firm natural gas rates. Failure to provide reasonable access to a PGW representative to verify installation of qualifying product(s) may lead to denial and rescinding of the rebate award and related legal action. If the serial number of the installed product(s) does not match the rebate application, or other evidence of fraud or misrepresentation is discovered, PGW will repudiate and rescind the rebate award and may take any related legal action(s) it deems necessary. This offer is available to PGW customers with mailing addresses in the United States only. Purchases made in or for delivery to other countries are not eligible. PGW is not responsible for lost, late, damaged, illegible, misdirected or postage-due applications. Your rights to this rebate cannot be assigned or transferred. Excessive submissions constitute fraud and may result in federal prosecution under the U.S. mail fraud statutes (Title 18, USC 1341 and 1342). All submitted materials become property of PGW and will not be returned. Rebate paid by check in US Dollars. It is required that you cash the rebate check within 90 days of the issuance date on the check. Rebates are awarded on a first-come, first-served basis and are subject to available funds. PGW reserves the right to change and/or end any portion of this program without notice.

Page 2 of 2

Large Project Application

Residential-sized Rebates

[Residential-sized Rebates Overview](#)

[Online Applications](#) +

[Print Applications](#)

Rebates for Landlords and Commercial Buildings Application



Please select if you're applying for rebates for a single PGW Account, or multiple. This will guide you to the correct starting form.

Rebates for Single PGW Account

Rebates for Multiple PGW Accounts

More than 10 Equipment Rebates

Large Project Application Template

Rebates for Landlords and Commercial Buildings Application – Large Project Template



Please fill out the form below to apply. Fields marked with an asterisk * are required.

Step 1

Download the PGW Rebates Large Project Template. After filling in the document with all the required information, return to this page to complete **Step 2**.

Download – PGW Rebates Large Project Template

Rebates limited to \$25,000. For proposed rebates above \$25,000 at an individual address, [contact PGW](#) in the planning stages to determine if another EnergySense program is a better fit for your project.

Application Checklist

- ✓ Submitted rebate application
- ✓ Sales invoice including date and proof of purchase
- ✓ Equipment's serial number
- ✓ Copy of new equipment's AHRI certificate →
- ✓ Copy of your PGW bill

This boiler qualifies for Federal Energy Efficiency Tax Credit when placed in service between January 1, 2014 and December 31, 2014.

AHRI CERTIFIED®
www.ahridirectory.org

Certificate of Product Ratings

AHRI Certified Reference Number : 5684788 Date : 04-10-2018 Model Status : Active

Brand Name : WEIL-MCLAIN
Model Number : WM97+ 110-CT

Rated as follows in accordance with the following test procedures and subject to verification of rating accuracy by AHRI-sponsored, independent, third party testing:

- Department of Energy Boiler Test Procedure as published in the Federal Register, 10 CFR Part 430 for United States;
- CAN/CSA P.2 (Gas Boilers) / ANSI/ASHRAE Standard 103-2007 (Oil Boilers) for Canada as published in the Canadian Gazette.

AFUE, % : 95.0
Heating Capacity, MBH : 101

The following data is for reference only and is not certified by AHRI

Material : Stainless Steel
Location : Indoor
Ignition : Intermittent/Electronic Ignition
Fuel Type : Natural Gas, Propane Gas
Input Rating, MBH : 110.0
Draft Type : Induced Draft
Condensing : YES
Control : Step-Modulating
Heating Medium : Water
Net AHRI Rating, Water, MBH : 88.00

AHRI CERTIFIED®
www.ahridirectory.org

Application Checklist

MOST IMPORTANT

- AHRI Certificate is a **REQUIRED DOCUMENT** for rebate processing
- AHRI Certificate must accompany the rebate application
- Provide the AHRI Certified Reference Number



This boiler qualifies for Federal Energy Efficiency Tax Credit when placed in service between January 1, 2014 and December 31, 2014.

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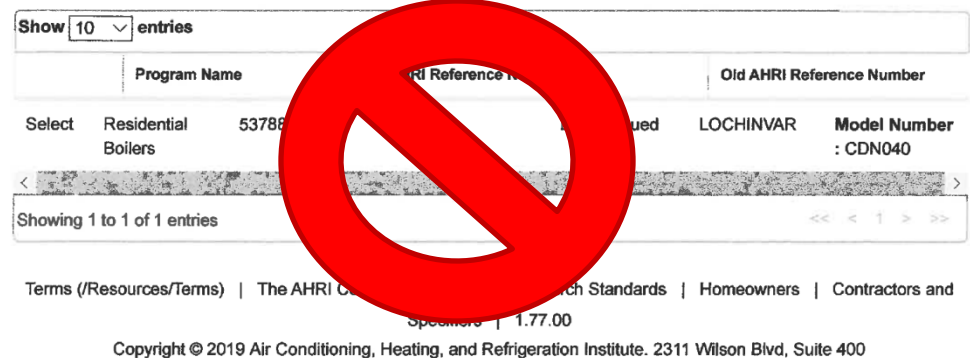
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Ignition : Intermittent/Electronic Ignition
Fuel Type : Natural Gas, Propane Gas
Input Rating, MBH : 110.0
Draft Type : Induced Draft
Condensing : YES
Control : Step-Modulating
Heating Medium : Water
Net AHRI Rating, Water, MBH : 88.00

AHRI CERTIFIED®
www.ahridirectory.org

Application Checklist

AHRI Directory Listing ≠ AHRI Certificate

- Must click on “Select” to see the actual Certificate
- Click again on the AHRI Certified Reference Number to see the actual Certificate
- Must verify that you have the correct Certificate for your equipment



Residential Equipment Rebates

Case Study: HACE Management Company

- **Rebate: \$44,500** across multiple properties
- **Measures included:**
 - 96% AFUE Furnaces
 - 99% Et Water heaters



COMMERCIAL EQUIPMENT REBATES

Commercial Equipment Rebates

| Equipment | Eligibility | Rebate |
|-------------------------------------|------------------|--------------------------------|
| Commercial Sized Boilers | 85% Et 90% Et | Up to \$6,300 Up to \$8,400 |
| Commercial Hot Water Heaters | $\geq 94\%$ Et | \$4/MBH |
| Steam Trap Replacements | Based on PSIG | Up to \$250/trap |
| Food Service Equipment | ENERGY STAR® | Up to \$1,900 |

Commercial-Sized High-Efficiency Boiler Rebates

85% Thermal Efficiency



\$800 - \$6,300

90% Thermal Efficiency



\$2,900 - \$8,400

| Size (kbtu/h) | 85% Et | 90% Et |
|---------------|----------|----------|
| 300 – 499 | \$ 800 | \$ 2,900 |
| 500 – 699 | \$ 1,400 | \$ 3,600 |
| 700 – 899 | \$ 2,000 | \$ 4,200 |
| 900 – 1,099 | \$ 2,600 | \$ 4,800 |
| 1,100 – 1,299 | \$ 3,200 | \$ 5,400 |
| 1,300 – 1,499 | \$ 3,800 | \$ 6,000 |
| 1,500 – 1,699 | \$ 4,400 | \$ 6,600 |
| 1,700 – 1,999 | \$ 5,200 | \$ 7,400 |
| 2,000 – 2,199 | \$ 6,000 | \$ 8,100 |
| 2,200 – 2,500 | \$ 6,300 | \$ 8,400 |

Et = Thermal efficiency

Commercial Hot Water Heater Rebates



Source: energystar.gov

| Minimum Efficiency | Rebate Amount |
|--------------------|---------------|
| =94% Et | \$4/kBtu/h |

Contact Us

- **Grant Questions**

Dan Augustine:

daugustine@psdconsulting.com

267-317-0063

- **Rebate Questions**

Rebecca Fitzgerald

Web submissions: pgwenergysense.com/contact

1-855-PGW-SOLVES (1-855-749-7658)

Thank you!