



Worcester Energy Program Residential Rebate Pilot Guide & Requirements

Welcome!

Worcester Energy is an energy efficiency program that encourages residents, businesses and institutions throughout the city to take action to save energy.

A highlight of this program, the Residential Rebate Pilot, is designed to encourage eligible home owners throughout the city to make energy efficient improvements and share information about their experience saving energy. To find out more about the City of Worcester's current and future efforts related to energy efficiency and creating a greener future, visit www.WorcesterEnergy.org today.

The list of eligible projects and rebate amounts per dwelling unit can be found on the attached **Rebate Table**.

Eligibility Requirements for Pilot Participants:

- 1) Existing residential dwellings in the City of Worcester with no more than 4 dwelling units¹;
- 2) While the owner can designate an applicant to apply on their behalf, the owner will have to sign all applicable sections of the application.
- 3) Note: Applications will be accepted both for owner-occupied and non-owner occupied dwelling units.

The final determination of project eligibility is made by Worcester Energy Program Manager, in their discretion, based on your application and the availability of funds.

If you have any questions after reading this guide, please e-mail, call or visit the Worcester Energy office at the address noted at the bottom of this page. More information about this program can be found at www.WorcesterEnergy.org.

We look forward to working with you to make a greener future, today.

¹ Eligibility of a mixed-use building (commercial & residential) where residential use is a primary use would be determined on a case-by-case basis by the Worcester Energy Program Manager.



**Executive Office of Economic Development
Worcester Energy Program (c/o Planning & Regulatory Services Division)**
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Email: worcesterenergy@worcesterma.gov
Website: www.WorcesterEnergy.org



Summary of the Application Process:

1. **Schedule an Assessment & EPS.** Schedule an appointment with Energy Monster or Next Step Living, the two companies (Mass Save® Participating Home Performance Contractors) contracted with the City, to obtain the following:
 - a. A no-cost [MassSave](#) home energy assessment

AND

 - b. [Energy Performance Scorecard](#) for your house and a projected Energy Performance Scorecard for the planned energy efficiency work (for a cost).
2. **Obtain licensed contractor's written cost estimates** for the measures you selected from your Mass-Save Assessment. Quotes can include labor and material costs.
3. **Submit Application Form.** Submit your completed Residential Rebate Pilot Application Form, with all required attachments, to the Worcester Energy Program.
4. **Receive the Pilot Agreement.** Within two (2) weeks you will receive an Agreement form that indicates your approved rebate amount and details the terms and conditions of the program.
5. **Return the Pilot Agreement.** Review, sign and submit the Agreement to the Worcester Energy Program within 15 business days.
6. **Install Approved Equipment and Materials Within 4 Months (6 months for renewable energy installations).** Obtain the necessary building permits and complete your home improvement project within four (4) months of the date your Agreement is counter-signed by the City (contract execution).
7. **Obtain your signed-as-final contractor's Permit to Build** form for the work completed (through the City's Dept. of Inspectional Services).
8. **Obtain your post-installation Energy Performance Scorecard** from your selected Mass-Save Assessment and EPS provider.
9. **Pay invoices for the completed work** (materials, labor, etc.). Obtain proof of payment (invoices stamped "paid" and/or initialed".)
10. **Submit a Rebate Request Form** along with items #7 - #9 to the Worcester Energy Program.
11. **Rebate.** Your rebate will be mailed to you in three (3) to six (6) weeks, provided you have met all Pilot requirements.
12. **Survey.** Participate in a survey designed to capture your experience.


Enjoy your energy efficient home!

The following provides a detailed step-by-step guide to the Worcester Energy Residential Rebate Pilot application process. Please note: each step must be completed in sequential order.

Schedule an **appointment with Energy Monster or Next Step Living**, the two companies (Mass Save® Participating Home Performance Contractors) contracted with the City, to obtain the following:

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ENERGY PERFORMANCE SCORE



Address:

Reference Score Status:

Official
No air leakage test

Current Energy Use

Energy Cost

Energy Score: 154 mmBtu/yr

Electric: 5,800 kWh/yr

Natural Gas: 200 therms/yr

Oil: 790 gal/yr

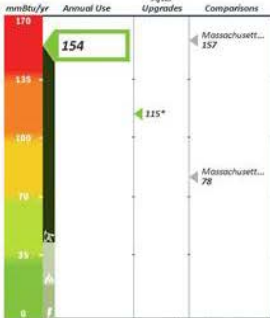
Carbon Score: 11.3 tons/yr

Electric: 1.9 tons/yr

Natural Gas: 1.3 tons/yr

Oil: 8.1 tons/yr

Energy Score



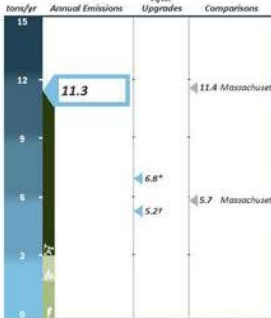
Annual Use

After Upgrades

Comparisons

**See Recommended Upgrades*

Carbon Score



Annual Emissions

After Upgrades

Comparisons

**See Recommended Upgrades*

The **energy score** measures the estimated total energy use (electricity, natural gas, propane, heating oil) of this home for one year. The lower the score, the less energy required for normal use. Actual consumption and costs may vary. Measured in million Btus per year (mmBtu/yr).

4 Bedroom, 1,934 sq ft Single Family Detached Home, built in 1900

Audit Date: 12/05/2013 **Auditor:**

SIMPLE EPS Version 2.0 ©2013/10/09

Visit www.energy-performance-score.com to maximize energy savings

Energy Performance Score

What is the Energy Performance Score?

A **Certified Score** The Energy Performance Score calculation is based on a home energy assessment. Anyone may use the EPS assessment methodology for evaluating energy performance and upgrades of a home, but only a certified EPS analyst has been trained and qualified to conduct an EPS.

Energy

Energy Score Calculation The Energy Score is based on a home's shape, size, insulation levels, air leakage, heating and cooling systems, major appliances, lighting, and hot water heating. Occupancy, behavior, indoor temperature, and regional weather are standardized to calculate normal energy use. A home's actual energy use will vary with behavior, weather, and changes to the home.

Measurements Defined

Electricity is measured in kilowatt hours (kWh). Natural gas is measured in therms. Oil and propane are measured in gallons (gal). Units of energy can be converted from one to another. Total energy use is represented in kilowatt hour equivalents.

1 kWh of energy equals

100-watt light bulbs burning for one hour.

1 therm of natural gas = 29.3 kWh

1 gallon of heating oil = 40.7 kWh

1 gallon of propane = 36.0 kWh

Carbon

Carbon Score Calculation The Carbon Score is based on the greenhouse gas emissions for the annual amounts, types, and sources of fuels used in the home. For electricity, the carbon emissions are based on electricity consumed and the mix of sources used in the sub-region. For natural gas, heating oil, and propane, carbon emissions are based on the therms or gallons used in the home.

Measurements Defined

While site energy is used to determine a home's annual energy consumption, source energy is used to calculate the home's associated carbon emissions. This is reflected in the sub-region emissions factor for electricity.

Benchmarks Defined

1 With energy from renewable sources indicates the carbon emissions produced if the homeowner chooses to offset the carbon emissions associated with electrical use. Click with your utilities to learn more about these options.

After Upgrades indicates the predicted carbon emissions if all of the Recommended Energy Upgrades suggested on the Energy Analysis Report are implemented.

Massachusetts Average is the average carbon emissions of households in the state.

Massachusetts Target is equivalent to 50% of the state average carbon emissions.

Energy Costs Fuel costs are based on prices at the time this report is issued* and do not include taxes, surcharges, or fees for renewable energy.

Benchmarks Defined

After Upgrades indicates the improvement in the predicted energy use if the lower and higher cost Recommended Energy Upgrades are implemented.

Massachusetts Average is the average energy use of households in the state.

Massachusetts Target is equivalent to 50% of the state average energy use.

*Estimated energy costs are based on the following rates:

Electric = \$0.07/yr	Oil = \$3.45/gal
Natural Gas = \$1.20/therm	Propane = \$2.00/gal

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- If you have already obtained your Mass Save Energy Assessment, please check with the chosen Home Performance Contractor on whether or not you may be eligible for a new one. If not, the chosen Home Performance Contractor can still provide you with the EPS but for a higher cost as follows:
 - **\$75** for a single-family house or a lodging house
 - For multi-family dwellings - \$75 for the first unit and \$37.50 for each additional dwelling in the same building.

The home owner will still be responsible for providing a copy of the Mass Save Home Energy Assessment Report from their last assessment visit with their application. Please contact the Program Manager with any questions.

The assessment will be performed within two weeks of the request and the chosen Home Performance Contractor will provide you with a Mass Save Home Energy Assessment Report (for free) and a customized Pre-Installation current and projected Energy Performance Scorecard (“EPS”) (for a cost, see above).

The chosen Home Performance Contractor will be solely responsible in coordinating with the owner to gain access to the property and obtaining any other information necessary to perform the MassSave assessment.

The chosen Home Performance Contractor will provide the owner with an invoice following the assessment.

Please Note:

- 1) The owner is responsible for paying the invoice for the EPS to the chosen company (Energy Monster or Next Step Living). This cost is eligible for a rebate through this Pilot if the owner chooses to apply and complies with all program requirements.
- 2) In addition to the MassSave Assessment and the EPS, both companies have extensive experience in performing different types of energy efficiency work (insulation, etc.). However, as a home owner, you are under no obligation to contract with these companies to do the actual work in order to obtain the EPS but may choose to do so.

2.) Obtain licensed contractor’s written cost estimates

Based on your Home Energy Assessment, obtain a detailed, itemized, quote from a licensed contractor for the recommended energy efficiency & conservation measures you wish to complete. Cost estimates should be broken out by measure and must include all utility incentives. Measures potentially eligible for the Worcester Energy Program Residential Rebate include the following:

- High efficiency heating and cooling equipment
- High efficiency on-demand or heat pump Domestic Hot Water systems
- Insulation (foam or dense-pack cellulose) and air sealing (not already covered by utility rebates)
- Other measures that can be proven to have a demonstrable 10-year simple payback will be considered on a case-by-case basis. If your project falls under the “Other Measure” category on the Rebate Table, please call us at 508-799-1400 x 5 to discuss before submitting your application

Please see the Rebate Table for information on the minimum energy efficiency requirements for the eligible equipment.

Please note that DIY installations will require a materials invoice (including name of the customer, address, description of the product, etc.). All necessary permits (as applicable) must

still be completed. Invoices estimates for the materials to be purchased need to be included with the application. DIY labor costs are not eligible for a Pilot rebate.

3.) **Submit Program Application**

Submit an accurate and complete [Residential Rebate Pilot Application](#) for review and approval with all of the following attachments:

- ✓ A copy of the MassSave Energy Assessment report
- ✓ Existing and Projected Energy Performance Scorecard
- ✓ Contractor quote(s) for the costs of each measure identified on the Application. Please be sure to have your contractor(s) include all eligible utility & government rebates / incentives
- ✓ If currently using oil for heating, oil usage data for the previous two (2) years²
- ✓ Low-income individual owners can be reimbursed up to 100% of net costs up to \$5,000 per dwelling unit. Fill out the applicable section of the application and attach the most recent W2 or equivalent tax form for each member of your household who files taxes
- ✓ If requesting a rebate for “Other Measures”, proof of 10-year payback

Example calculation of a simple payback on energy efficiency measures’ investments:

A	B	C	D	E	F
Measure	Total Installed Cost	Less all Utility Incentives	Equals: Net Eligible Cost (columns B-C)	Estimated Yearly Savings	Simple Payback in years (columns D / E)
Air sealing	\$820	\$615	\$205	\$192	1.1
Foam Insulation	\$3,200	\$2,400	\$800	\$315	2.5
Furnace upgrade	\$4,800	\$1,050	\$3,750	\$388	9.7

4.) **Your application is reviewed by program staff. If found eligible, you will receive the following forms for your review and signature:**

- Residential Rebate Pilot Agreement
- Eligibility Form (Exhibit A to the Agreement), which will detail the amount and energy efficiency measures approved for rebate
- Hazardous Materials and Substances Form (Exhibit B to the Agreement)

Please Note: Measures identified in your Energy Assessment may not be approved for a rebate based on the condition of the home, safety concerns, minimal energy savings or any other reason, at the sole discretion of the Worcester Energy Program, including, but not limited to, insufficient program funds. A letter will be sent to the applicant explaining the reasons for denial.

² The Application will authorize the City to obtain the utility data for your property for two (2) years prior and following the issuance of the Certificate of Approval by the Department of Inspectional Services from NGRID and NSTAR (using a Utility Data Consent Agreement in the Application). If you are instead or additionally served by other energy provider/s (e.g. for oil or wood), you must provide the City with that information for 2 years prior and 2 years following the issuance of the Certificate of Approval.

5.) Sign and Submit Agreement with Attachments within 15 business days

To ensure funds are reserved for your project, you must submit an original signed copy of the above mentioned documents (see 4 above) to the Worcester Energy Program within 15 business days.

6.) Install Approved Equipment and Materials Within 4 Months (6 months for renewable energy installations).

Obtain a Construction Contract (Recommended) based on contractor quote(s):

It is recommended, but not required, that you obtain a contract that includes a scope of work, cost estimates, and a project schedule from the contractor you hire to do the work.

Changes to your project may change your rebate amount. If there are changes to your home improvement project related to an approved eligible measure or your project includes another potentially eligible measure, you are required to inform the Worcester Energy Program in writing or e-mail of any such modifications within 14 calendar days for consideration.

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Obtain all necessary governmental permits. **Please note that any work on a residential building requires a **Building Permit** (including insulation, boiler replacement, etc.), except for ordinary repairs, as defined in 780 CMR, 51.00, Subsection R105.2³. Air sealing would not require a Building Permit. If you are not sure whether or not the work you are planning to do would be defined as ordinary repair, please contact Department of Inspectional Services (508) 799-1198.

Upon execution of the Agreement, you must install the approved measures in accordance with all Worcester Energy Residential Rebate Pilot requirements. Any violation of the Agreement with the City of Worcester may result in termination from the Pilot.

Please note: The City does not guarantee the availability of funds if the Rebate Request Form is not received within four (4) months (six (6) for renewable energy projects) of the date the Agreement is fully executed (i.e. signed by both the property owner and authorized by City official/s).

³ 780 CMR, 51.00, Subsection R105.2:

Work Exempt from Permit. Except for activities which may require a *permit* pursuant to other laws, by-laws, rules and the *specialized codes*, a building *permit* is not required for the following activities:

Building:

1. One-story detached *accessory structures* used as tool and storage sheds, playhouses and similar uses, but not garages, provided the floor area does not exceed 200 square feet

(18.58 m²)

2. Fences not over six feet (1829 mm) high.

3. Retaining walls that are not over four feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge, or that retain over four feet of unbalanced fill.

4. Sidewalks and driveways.

5. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.

6. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.

7. Swings and other playground equipment.

8. Window awnings supported by an exterior wall which do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.

9. Decks not exceeding 200 square feet (18.58 m²) in area, that are not more than 30 inches (762 mm) above *grade* at any point, are not attached to a *dwelling* and do not serve the exit door required by subsection R311.4.

R105.2.2 Ordinary Repairs. A building permit is not required for ordinary repairs.

7.) Post-Installation – Building Inspection

- Schedule a building inspection with the City of Worcester, Dept. of Inspectional Services. They can be reached at 508-799-1198 between 8 am – 5 pm, Monday through Friday.
- After the building inspector has completed the inspection, your contractor's Permit to Build form will be signed as Final. Please obtain and keep this document as well as the post-installation EPS report (see below).

8.) Post-Installation – Energy Performance Scorecard

- Once all measures are installed, you must obtain your post-installation EPS from the previously selected Mass-Save Home Performance Contractor.

9.) Pay invoices for the completed work (materials, labor, etc.). Obtain proof of payment (invoices stamped “paid” and/or initialed”).)

10.) Submit a Rebate Request

Submit to the Worcester Energy Program a [Rebate Request Form](#) with the following completed documents:

- ✓ Signed as Final contractor's Permit to Build form for the work completed.
- ✓ Post-Installation EPS report.
- ✓ All applicable invoices for the measures indicated in your approved Eligibility Form, stamped ‘paid’ or with other proof of payment.
- ✓ W-9 form (needed by the Budget Office in order to issue the rebate check).

11.) Rebate Request Review and Issuance

Program staff will review your rebate request for accuracy and completeness and within 3-6 weeks will issue either your Rebate Check or a Rebate Request Review Letter explaining why the information you submitted does not meet program requirements.

12.) Post Installation Follow-up

After you have received your rebate check, you may be contacted to participate in a survey about your experience. As required by the Residential Rebate Pilot Agreement, all applicants may be asked to participate in up to 2 post-installation surveys about participation in the program and the energy savings realized. A case study about your experience may be developed and used to promote the program and report the energy savings achieved.

Thank you for your participation.

Worcester Energy Program Residential Rebate Pilot Rebate Allocation Limitations and Conditions

To provide residential rebate opportunities for the broadest array of eligible property owners and to avoid undue benefit to particular landowners, the following rebate limitations and conditions apply:

1. Pilot Allocation Limitations

- a. A total of \$298,200 is allocated for owner-occupied rebates.
- b. A total of \$298,200 is allocated for non-owner occupied rebates.

2. Individual Applicant Limitations:

- a. A maximum of \$5,000 per dwelling unit, excepting “Other Measures” approved by the Program Manager.
- b. A maximum of \$40,000 for the sum total of all dwelling units can be obtained by a single entity or entities with one or more of the same corporate officers / managers, or owners.

3. Eligibility Condition

- a. All landowners must pay property taxes for the property benefiting from the residential rebate pilot unless exempt due to City Council approved abatement such as those provided from time to time to veterans, those with disabilities, and the elderly, or similar etc.
- b. Income eligible customers are eligible for 100% of net costs up to a cap of \$5,000. However, the rebate cannot exceed total net costs for labor and materials for each measure.

4. City Employees

- a. The sum of rebates made to all eligible property owners employed by the City of Worcester shall not exceed \$90,000 in total.

5. Other

- a. Rebates cannot exceed total net costs for labor and materials for each measure.
- b. The post-installation EPS cannot be the same or lower than the pre-test score.

Funds will be made available on a first come, first served basis. The Worcester Energy Program, in its discretion, reserves the right to change these limitations and conditions at any time.

See program agreement and guides for eligibility requirements and additional limitations and conditions.

Worcester Energy Program Residential Rebate Pilot Rebate Table

WORCESTER ENERGY

Residential Rebate Pilot - Rebate Table

Eligible Work (includes Equipment, Associated Labor Costs, etc.):		Rebate Amounts:
Heating & Cooling	Water Boilers (Gas/Propane with AFUE* \geq 90%; Oil with AFUE* \geq 85%) Steam Boilers (AFUE* \geq 82%) Warm Air Furnace (Gas/Propane with AFUE* \geq 95%; Oil with AFUE* \geq 83%) Ductless Mini-Split Heat Pump** (EER* \geq 12; HSPF* \geq 8.2; SEER* \geq 16)	up to \$3,000 ¹
Insulation and Air Sealing	Closed cell foam and dense-pack cellulose	up to \$2,000 ¹
Domestic Hot Water	On Demand; Heat Pump; Indirect Water Heater	up to \$1,500 ¹
Heating & Cooling	Air Source Heat Pump (EER* \geq 12, SEER* \geq 14.5, HSPF* \geq 8.2)	
= Total not to exceed \$5,000 per dwelling unit		

Other Measures: In addition to the above rebates, energy efficiency or renewable measures not listed above may be eligible for another \$5,000 maximum, not to exceed a total 50% of net costs.

Eligible projects may include but are not limited to: Renewables (solar, combined heat & power, small wind, ground-source heat pump (COP* \geq 3.3), etc.); deep energy efficiency retrofits; etc. These measures must have a <u>proven, demonstrable payback of 10-years or less</u> to be considered. Applicant will need to provide evidence of 10-year payback with the application. "Other Measures" projects may require 3rd party testing/modeling. Eligible costs include equipment, associated labor costs, etc. Please call to discuss your project's requirements.	up to \$5,000 ¹
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Notes:

- 1) Rebates cannot exceed total net costs (e.g. gross costs less eligible & received MassSave/other energy efficiency incentives) for labor and materials for each project. EPS (Energy Performance Scorecard) costs are rebate eligible.
- 2) Low-income individual owners can be reimbursed up to 100% of net costs up to \$5,000 per dwelling unit (see the Pilot Guide & Requirements for additional information).
- 3) Open to owner and non-owner occupied 1-4 existing residential dwelling units, regardless of income.
- 4) The final determination of eligibility is made by Worcester Energy Program Manager, in their discretion, based on your application and the availability of funds.

* AFUE - Annual Fuel Utilization Efficiency; COP - Coefficient of Performance; EER—Energy Efficiency Ratio; HSPF - Heating Seasonal Performance Factor; SEER—Seasonal Energy Efficiency Ratio.
**Ductless Mini-Split cooling only units are not eligible.

Please see the Pilot Guide & Requirements for more information and to learn how to apply! (www.worcesterenergy.org)

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