

OKLAHOMA COMFORT PROGRAM (OCP)

OCP is financed in whole or in part by funds from the Stimulus State Energy Program (SSEP) as administered by the Oklahoma Department of Commerce.

GUIDELINES AND QUALIFYING CRITERIA FOR REBATES

(Amended 5/24/2011, 7/15/2011 and 8/5/2011)

Rebates of \$1,000 per ton are available for qualifying geothermal heat pumps (GHPs) as long as funds are available through the Oklahoma Comfort Program (OCP). This program will end on March 31, 2012 (or earlier if funds are expended). **Applications for OCP rebates (with all required material) must be received by OMPA by February 29, 2012.**

Recent Changes to these Guidelines

- **Davis-Bacon wage requirements are no longer required for any project.**
- **For commercial/industrial customers in OMPA cities that participate in OMPA's WISE Rebate Program, there will be a minimum WISE rebate of \$400 per ton for qualifying systems.**
- **For customers served by Edmond Electric, installations up to 12 tons do not need special NEPA approval, provided they are NOT within ½ mile of Lake Arcadia (see below for details about NEPA approval).**

Qualifying Site/Customer Criteria

- **Only electric utility customers of full-requirements member cities of OMPA qualify for the OCP rebates.** See www.ompa.com for OMPA's member cities.
- **Rebates are available for residential, commercial, industrial, institutional, governmental buildings and/or facilities.**
- **Work cannot commence at any proposed OCP installation site until State Historical Preservation Office (SHPO) approval has been received.** OMPA must submit information about all prospective GHP installation sites to the Oklahoma State Energy Office (SEO) for review by SHPO. Details of the information required for submittal to SEO for SHPO approval is provided at www.ompa.com/Programs/oklahoma-comfort/SHPO. Under a Programmatic Agreement with SHPO, SEO can approve sites with buildings that are less than 45

years old; this review will take a few days. For buildings 45 years old or older, SEO must submit details to SHPO for review; this review process will take up to a month (or more).

- **GHP systems of 5.5 tons or more will only qualify on a case-by-case basis if National Environmental Policy Act (NEPA) and/or other special approvals are obtained by OMPA. Installations at any one site that are less than 5.5 tons qualify without special NEPA approval. Individual units that are less than 5.5 tons will not qualify under the “less than 5.5 ton” conditions if the total installation at the site is 5.5 tons or more. On a retrofit, if the units replaced total less than 5.5 tons they will be eligible for the rebates without special NEPA approval. However, if other units at the same address should need replacing within the time frame of the program, and the total of the replaced systems is 5.5 tons or more, they will not qualify without special NEPA approval. Requirements for applications for NEPA approval can be found at <http://ompa.com/wp-content/uploads/2010/04/Information-Required-for-Large-System-Applications-Rev-05112011.doc>**

Sites/Installations that Do Not Qualify

- **Systems installed at or on aquariums, zoos, golf courses, swimming pools, hot tubs, casinos or other gambling establishments will not qualify for OCP rebates under any conditions.**
- **Direct-exchange systems and systems with standing column well heat exchangers will not qualify for OCP rebates.**
- **GHPs that are installed with gas (natural gas or propane) backup heating will not qualify for OCP rebates.**

Qualifying Geothermal Heat Pump (GHP) and Installation Criteria

Certain closed-loop water-to-air and closed-loop water-to-water GHPs qualify most easily. Open-loop systems and closed-loop systems with pond loops may qualify on a case-by-case basis if NEPA and/or other special approvals are obtained. OMPA can apply for this approval; however, obtaining special approval is uncertain and likely to be a lengthy process.

- **Each GHP must (as a minimum) meet performance standards (both EER and COP) currently listed as EnergyStar Tier 2. EnergyStar Tier 2 criteria are listed at http://www.energystar.gov/index.cfm?c=geo_heat.pr_crit_geo_heat_pumps** For multi-stage models, the EER and COP will be calculated as the average of the highest and lowest rated capacity EERs and COPs.
- **Each GHP must be currently certified by an EPA-recognized Certification Body that lists the capacities and efficiencies of the GHPs on its website. Qualifying**

certifying bodies are listed at

http://www.energystar.gov/index.cfm?fuseaction=recognized_bodies_list.show_RCB_search_results. Capacity and efficiency data listed by the Certification Body will

be used to determine the EER and COP (for qualification) and the tonnage to be rebated. Tonnages will be calculated and rounded to the nearest two decimal points, and rebates will be provided based on these calculated tonnages.

- **If the GHPs are installed on homes/buildings in which water is heated for any purpose, at least one GHP must include an operating desuperheater (or hot water generator) that provides energy for water heating.** If this condition is met, all GHPs at one site will qualify for the OCP rebates, provided all other qualifying criteria are met. This requirement does not apply to GHP installations on existing homes that have instant (tankless) water heaters as their only source for domestic hot water.
- **GHP units that are replaced (or retrofitted) are eligible for the full rebates even if no changes are made to the associated ground loop systems, provided that all other qualifying criteria are met.**
- **It is recommended that GHP units larger than 2.0 tons have two-stage operation.**

Rebate Amounts

- **As long as OCP funds are available, all qualifying GHPs are eligible for rebates in the amount of \$1,000 per ton.** AHRI certification data will be used to determine the EER and COP (for qualification) and the tonnage to be rebated. Tonnages will be calculated and rounded to the nearest two decimal points, and rebates will be provided based on these calculated tonnages.
- **For customers in cities that participate in OMPA's WISE Rebate Program, additional rebates of up to \$800 per ton are available. Note that some OMPA member cities have limits on the WISE rebates they provide.** GHPs that qualify for the OCP rebates will qualify for the WISE rebates. WISE rebates are provided on a shared basis by OMPA and the member city. For commercial and/or industrial customers only, there will be a minimum WISE rebate of \$400 per ton for qualifying systems, as long as the member city participates in the WISE Rebate Program.

Installer/Contractor Criteria

For GHP installations to qualify for the OCP rebates, installers/contractors of GHPs must meet the following criteria:

- **Contractors must have an active Mechanical Contractor License issued by the Oklahoma Construction Industries Board, and any other licenses required by local authorities.**
- **Drilling contractors must be licensed through the Oklahoma Water Resources Board.**
- **Contractors are responsible for obtaining all applicable permits.**
- **From January 1, 2011, for at least one installer on each job, installers/contractors must have current International Ground Source Heat Pump Association (IGSHPA) Installer Accreditation.**
- **From January 1, 2011, for at least one installer on each job, installers/contractors must have training certification by their equipment manufacturer on their equipment.**
- **From January 1, 2011, installers and contractors must be listed on the OCP List of Approved Installers/Contractors for the GHP systems they install to qualify for OCP rebates. To apply for listing, go to www.ompa.com/Programs/oklahoma-comfort/.**

Qualifying System Design Criteria

For GHP installations to qualify for the OCP rebates, the installed system must meet the following design criteria:

- **For residential systems, a Manual J calculation must be performed by the installer/contractor for each installation. For commercial systems, a Manual N calculation (or equivalent) is recommended. Design temperatures used for these calculations must be 97.5% (or higher) winter design dry-bulb temperatures and 2.5% (or lower) summer design dry-bulb and mean coincident wet-bulb temperatures.**
- **For each system, a design of the system (including the loop) must be done using Geo Designer or other manufacturer-supplied system design software approved by OMPA, to provide proper equipment sizing.** These design calculations must show that the loop entering water temperature will not exceed 90.0 degrees F and that the system will meet 95% to 115% of the calculated sensible and latent air conditioning load. Multi-stage equipment may be sized larger to provide additional heating capacity as long as the lowest stage of cooling will meet the above requirements.
- **For new ductwork installations, or for ductwork that is significantly altered, it is highly recommended that contractors perform a Manual D calculation.**

System Installation and Documentation Criteria

- **Installed systems should meet the criteria set out in the latest edition of the publication “HVAC Quality Installation Specification,” published by the Air Conditioning Contractors of America (ACCA).** This publication covers aspects related to design, installation, ductwork, system documentation and owner education.
- **The cost of the loop represents a significant portion of the GHP system investment and must operate properly to ensure that the home or building has the proper comfort levels for the occupants. The GHP system installer is responsible for correctly installing the loop and conducting tests and procedures to ensure proper loop performance.**
 - **Installed loop systems and loop system tests must meet the criteria set out in the publication “Closed-Loop/Geothermal Heat Pump Systems, Design and Installation Standards, 2009 Edition,” published by IGHSPA.**
 - **A loop site plan** must be provided for each ground loop installed. As a minimum, this should consist of an 8.5 by 11.0 inch plot plan, showing the location (by triangulation with respect to permanent reference points e.g., building and/or property corners, etc.) and depth of each vertical and/or horizontal loop and all connecting horizontal piping up to the entry point to the home/building. All loop components should be clearly labeled. Header assemblies and other loop connections should be clearly located and labeled on the site plan. Provided the loop is not changed in any way, the loop site plan is not required for retrofits or replacements of GHP units.
 - **A continuous copper tracer wire** must be installed with all horizontal loop piping, and the location of the end to which connection can be made must be apparent and shown on the loop site plan referenced above. It is recommended that the tracer wire be terminated in the building with the connection end clearly marked. It is also recommended that the end of the trenches and the header pit be identified by making a “T” with the tracer wire. Provided the loop is not changed in any way, a tracer wire is not required for retrofits or replacements of GHP units.
 - **A warning tape (preferably metallic)** must be installed one to two feet below ground level over all loop piping.

System Commissioning and Inspection

- **Equipment start-up tests must be conducted for each installation and reported** on a start-up report (the ClimateMaster Commissioning Worksheet or equivalent) and provided to the customer. The ClimateMaster Commissioning Worksheet may be found at <http://ompa.com/wp-content/uploads/2010/04/ClimateMaster-Unit-Start-Up-Form.pdf> or at http://www.climatemaster.com/downloads/Unit_Start_Up_Form.pdf.

- **Installations must be inspected** after completion by OCP and/or city staff to verify the equipment and installation.

Warranties

- **For residential systems, installers/GHP manufacturers must provide customers with a standard ten year parts /five year labor warranty on the GHP installation. In addition, installers/GHP manufacturers must offer customers an optional full ten-year warranty on the GHP installation, for which an additional cost may be charged.**

Prequalification

- **Once a GHP system has been designed for a particular site, it can be prequalified for the OCP and the WISE rebates by completion and submission of the Geothermal Rebate Request Form at <http://ompa.com/wp-content/uploads/2010/04/Geothermal1.doc> Prequalification is strongly recommended.**

Applications for Rebates

Applications for OCP rebates must be submitted through member city personnel. The material required is listed together with other OCP documents at the OMPA website.

- **City Staff Checklist for OCP Applications** can be found at <http://ompa.com/wp-content/uploads/2010/04/City-Staff-Checklist.pdf>
- **Homeowner Checklist for OCP Applications** can be found at <http://ompa.com/wp-content/uploads/2010/04/Homeowner-Checklist1.pdf>
- **Commercial Project Checklist for OCP Applications** can be found at <http://ompa.com/wp-content/uploads/2010/04/Commercial-Project-Checklist.doc>