

OREGON DEPARTMENT OF ENERGY

DIVISION 60

ENERGY CONSERVATION SERVICES

330-060-0005

Purpose

(1) OAR 330-060-0005 through 330-060-0095 describe qualifying energy conservation measures, the basis for the energy audit, prescribe how fuel oil dealers shall provide energy conservation services to their residential customers as required by ORS 469.673 through 469.679, and prescribe the standards for state financed 6.5 percent interest loans made under Chapter 894, Oregon Laws 1981, as amended by Chapter 749, Oregon Laws 1987, and Chapter 718, Oregon Laws 1991.

(2) These rules are effective September 1, 2007 or upon filing with the Secretary of State, whichever is later and shall apply to energy conservation measure rebate applications postmarked on or after the effective date of these rules.

Stat. Auth.: ORS 469

Stats. Implemented: ORS 469.673

Hist.: DOE 10(Temp), f. & ef. 9-16-77; DOE 1-1978, f. & ef. 1-16-78; DOE 8-1979, f. & ef. 11-29-79; DOE 13-1980, f. 12-15-80, ef. 1-1-81; DOE 7-1981, f. & ef. 12-18-81; DOE 4-1983, f. & ef. 10-10-83; DOE 3-1987, f. & ef. 12-18-87; DOE 1-2000, f. 3-30-00, cert. ef. 4-1-00; DOE 2-2003, f. 9-24-03, cert. ef. 10-1-03; DOE 5-2004, f. 10-14-04, cert. ef. 11-1-04

330-060-0010

Definitions

As used in OAR 330-060-0005 through 330-060-0095, unless the context requires otherwise:

(1) "Annual Rate": The yearly interest rate specified on the note. This is not the annual percentage rate, if any, disclosed to the applicant under the federal Truth in Lending Act.

(2) "ASHRAE": American Society of Heating, Refrigeration, and Air Conditioning Engineers.

(3) "Auditor": The person who gathers information at the dwelling to complete a report recommending energy conservation measures consistent with the standards set in these rules and the energy conservation measures specifications.

(4) "Buffer Space": An enclosed but unheated space such as a garage, porch, unheated basement, crawl space or attic, which abuts a heated space.

(5) "Commercial Energy Auditor": A person who through training or experience has a general knowledge of heat transfer principles, construction practices, energy efficient operations and maintenance procedures, boiler and furnace efficiency improvements, infiltration controls, envelope weatherization, heating, ventilating and air conditioning systems, electric control systems, lighting systems, and solar and energy conservation measures.

(6) "Commercial Energy Audit": The service provided by a commercial energy auditor to the owner of an apartment building which is centrally heated. It includes on-site data gathering, energy use analysis, and a report to the owner recommending energy conservation measures.

(7) "Cost-Effective": The present value of energy saved over the life of an energy conservation measure is worth more than the measure's cost. However, the energy savings of a measure shall receive a 10 percent "bonus".

(8) "Customer": A residential customer or dwelling owner.

(9) "Dealer": Fuel oil dealer or any person or organization which supplies fuel oil at retail for the heating of dwellings.

(10) "Director": The Director of the Oregon Department of Energy.

(11) "Dwelling": Real or personal property in Oregon which is the principal residence of the owner or a tenant. "Dwelling" includes a mobile home as defined in ORS 446.003, a floating home as defined in ORS 488.705 and a single unit in an apartment building. "Dwelling" does not include a recreational vehicle as defined in ORS 446.003.

(12) "Dwelling Owner": The person who has legal title to a dwelling, including the mortgagor under a mortgage, the trustor under a deed of trust, or a purchaser under a contract.

(13) "Energy Audit" means a written report completed to recommend energy conservation measures consistent with the standards set in these rules and the energy conservation measures specifications.

(14) "Energy Conservation Measures": Items that are primarily designed to improve the energy efficiency of a dwelling:

(a) In the case of dwellings not receiving a commercial energy audit, these measures are limited to:

(A) Caulking, weatherstripping and other prescriptive actions to seal the heated space and ducts in a dwelling;

(B) Insulation of ceilings or attics to R-38 if achievable in areas with R-19 or less, including insulation installed on flat roofs (but excluding any fire or weatherproofing or roofing materials installed over the insulation) and associated ventilation;

(C) Fill the wall cavity with insulation. If area has unfinished walls adjacent to unheated areas, fill the wall cavity to R-21, if achievable. In areas that have finished walls with no insulation that are adjacent to unheated areas, fill to R-13, if achievable.

(D) Insulation of floors over unheated spaces to fill framing cavity or achieve R-30 if achievable in areas where no insulation is present, and materials to support the insulation and needed ground cover and ventilation;

(E) Insulation of supply and return air ducts in unheated spaces to at least R-8 if achievable and no insulation is present and the ducts are in unheated areas;

(F) Insulation of water heaters, water pipes, or steam pipes in unheated spaces and for at least ten feet from the water heater in unheated areas to at least R-3 if achievable and no insulation is present;

(G) Double glazed windows (including sliding doors) with a U-value of at least 0.35 or lower replacing less energy efficient windows.

(H) Storm doors covering uninsulated exterior doors;

(J) Storm windows over single pane glass windows on an exception basis when double glazed windows are not a practical option;

(K) Insulated exterior doors with an U-value no higher than 0.20.

(L) Replacement fuel oil burners, including electrical controls and combustion chamber improvements when needed, which increase combustion efficiency of oil furnaces or boilers. A replacement burner must have a tested steady state efficiency of at least 80 percent and be replacing a burner that is more than 10 years old or is in a heating systems with a tested steady state efficiency of 70 percent or less;

(M) Fuel oil furnaces or boilers with tested steady state efficiency of at least 81 percent replacing a fuel oil heating system that is more than 20 years old or has a steady-state efficiency of 70 percent or less or as otherwise authorized by the Oregon Department of Energy;

(N) Installation of above-ground oil tanks to replace use of underground oil tanks and associated fuel lines shall qualify, but only if associated with the replacement of the oil furnace qualifying for a rebate. Any costs associated with the decommissioning, removal, or environmental cleanup of an underground fuel tank are excluded;

(O) Programmable thermostats;(P) Blower door tests and blower door assisted whole house air sealing performed by a technician certified by the Oregon Department of Energy's Residential Energy Tax Credit duct sealing technician certification program;

(Q) Duct leakage tests and duct sealing performed by a technician certified by the Oregon Department of Energy's Residential Energy Tax Credit technician certification program in accordance with the Oregon Department of Energy's premium efficiency duct system standards in effect at the time the work is completed.

(R) Vapor barrier material, exhaust fans and venting to provide spot ventilation in kitchens, bathrooms, utility rooms, or other areas where as the result of installing recommended energy conservation measures moisture problems could be created or worsened.

(b) In the case of centrally-heated apartment buildings receiving a commercial energy audit, measures shall be primarily designed to reduce fuel oil use. In addition to measures listed in subsection (a) of this section, the measures may include but not be limited to:

(A) Automatic energy control systems;

(B) Equipment, associated with such control systems, which is needed to run variable steam, hydraulic and ventilating systems;

(C) Furnace or boiler plant and distribution system modifications. This includes devices for modifying flue openings which will increase the efficiency of the heating system; or

(D) Lighting system improvements.

(15) "Energy Conservation Measures Specifications": All energy conservation measures shall meet the installation provisions of the Oregon Department of Energy's Energy Conservation Measure Specifications. All heating system improvements shall meet the steady state efficiency requirements of these rules. All blower door assisted whole house air sealing and duct sealing measures shall meet the specifications of the Oregon Department of Energy's Residential Energy Tax Credit technician certification program.

(16) "Finance Charge ": The total of all interest, loan fees, and other charges related to the cost of obtaining credit. This includes any interest on any loan fees financed by the lender.

(17) "Fuel Oil": Any petroleum product sold by a petroleum supplier for use as a residential heating fuel, including heating oil, propane, butane and kerosene.

- (18) "Landlord": A dwelling owner who rents his or her dwelling to a tenant.
- (19) "Lender": Any bank, mortgage company, trust company, savings and loan, or credit union having an office in Oregon.
- (20) "Lighting system improvements": Measures which will reduce energy use in the lighting system by at least 25 percent if recommended in the commercial energy audit.
- (21) "Oregon Department of Energy": State of Oregon agency
- (22) "Residential Customer": A dwelling owner or tenant who is billed by a dealer for fuel oil received at the dwelling.
- (23) "Space-Heating": The heating of living space within a dwelling.
- (24) "State Incentive": The energy conservation measure rebate or any other state incentive which gives a customer a cash payment for an energy conservation measure.
- (25) "Tenant": A tenant as defined in ORS 91.100 or any other tenant.
- (26) "Trade Ally": means a contractor licensed in the State of Oregon to install energy conservation measures.
- (27) "Unheated Space": An area in a dwelling which is not connected to a heating system fueled by fuel oil or wood.
- (28) "Wood Heating Resident": A person whose primary space heating fuel is any form of wood, including sawdust:
- (a) In the case of a dwelling which has an installed central electric or gas heating system the customer is eligible for rebate and loan financing under this program if not eligible for such financial assistance from the utility; or
 - (b) In the case of a dwelling which has baseboard or portable space heaters, the customer is eligible for rebate and loan financing under this program if not eligible for such financial assistance from the utility.
 - (c) In the case of a dwelling that has no installed heating system other than wood, the customer is eligible for rebate and loan financing under this program.

Stat. Auth.: ORS 469

Stats. Implemented: ORS 469.673

Hist.: DOE 10(Temp), f. & ef. 9-16-77; DOE 1-1978, f. & ef. 1-16-78; DOE 8-1979, f. & ef. 11-27-79; DOE 13-1980, f. 12-15-80, ef. 1-1-81; DOE 7-1981, f. & ef. 12-18-81; DOE 4-1983, f. & ef. 10-10-83; DOE 3-1987, f. & ef. 12-18-87; DOE 1-2000, f. 3-30-00,

cert. ef. 4-1-00; DOE 2-2003, f. 9-24-03, cert. ef. 10-1-03; DOE 5-2004, f. 10-14-04, cert. ef. 11-1-04

330-060-0015

Description of Residential Energy Conservation Program

As defined in ORS 469.673 through 469.679, each dealer shall establish an energy conservation services program and shall provide energy conservation information to customers and to the public. A dealer may rely upon the services contracted for by the Director pursuant to ORS 469.677, instead of presenting a separate program, or complete the energy audits as a trade ally, as provided in these rules.

Stat. Auth.: ORS 469

Stats. Implemented: ORS 469.673

Hist.: DOE 10(Temp), f. & ef. 9-16-77; DOE 1-1978, f. & ef. 1-16-78; DOE 8-1979, f. & ef. 11-27-79; DOE 13-1980, f. 12-15-80, ef. 1-1-81; DOE 7-1981, f. & ef. 12-18-81; DOE 4-1983, f. & ef. 10-10-83; DOE 3-1987, f. & ef. 12-18-87; DOE 1-2000, f. 3-30-00, cert. ef. 4-1-00; DOE 2-2003, f. 9-24-03, cert. ef. 10-1-03; DOE 5-2004, f. 10-14-04, cert. ef. 11-1-04

330-060-0020

Reliance on the Statewide Fuel Oil Audit Program

(1) The Director shall contract for a statewide energy audit program to give the information, help and technical advice required of dealers by ORS 469.675.

(2) A dealer who relies on the statewide energy audit program may, however:

(a) Notify its customers about this program, including a toll-free number to request information; or

(b) Act as a contact between its customers and the statewide energy audit program. Such a dealer may pass on its customers' requests for information to the statewide energy audit contractor chosen by the Oregon Department of Energy.

Stat. Auth.: ORS 469

Stats. Implemented: ORS 469.675

Hist.: DOE 10(Temp), f. & ef. 9-16-77; DOE 1-1978, f. & ef. 1-16-78; DOE 8-1979, f. & ef. 11-27-79; DOE 13-1980, f. 12-15-80, ef. 1-1-81; DOE 7-1981, f. & ef. 12-18-81; DOE 4-1983, f. & ef. 10-10-83; DOE 3-1987, f. & ef. 12-18-87; DOE 1-2000, f. 3-30-00, cert. ef. 4-1-00; DOE 2-2003, f. 9-24-03, cert. ef. 10-1-03; DOE 5-2004, f. 10-14-04, cert. ef. 11-1-04

330-060-0040

Low-Interest Loans Through Lenders

(1) State financed 6.5 percent interest loans made under Chapter 894, Oregon Laws 1981, as amended by Chapter 749, Oregon Laws 1987, and Chapter 718, Oregon Laws 1991, shall meet the following standards:

(a) A loan shall be made only to a dwelling owner who is or who rents to a residential fuel oil customer or a wood heating resident;

(b) Only energy conservation measures recommended as cost-effective in the energy audit, recommended adjuncts to those measures, and any loan fee that is included in the body of the loan shall qualify for the loans;

(c) The maximum loan limit, including the loan fee, is \$5,000 for each eligible dwelling unit. If the dwelling owner is a corporation operating a non-profit home for the elderly, a loan shall not exceed \$2,000 per dwelling unit;

(d) A lender may charge, finance, and collect a nonrefundable front-end loan fee. Charging such a loan fee will not disqualify the loan for a tax credit under this section. The fee shall not exceed that charged by the lender for nonsubsidized loans made under like terms and conditions at the time the subject loan is made;

(e) There is no limit on the number of eligible dwelling units for which a dwelling owner may receive a loan;

(f) Loans shall not finance the following:

(A) Converting space heat equipment from oil or wood to another source of fuel;

(B) Space heating heat pumps;

(C) Water heating heat pumps;

(D) Wood-burning devices;

(E) Any measure that would benefit all or part of a non-residential commercial building unless the building has some residential living space. In the case of a commercial building which has some residential living space the following can qualify for a loan:

(i) That part of the building used exclusively for residential; and

(ii) In a centrally heated building, a prorated share of the cost of a heating system. This share shall be based on the percentage of residential to total square footage served by the heating system.

EXAMPLE: 1,000 square feet is commercial, 2,000 square feet is residential - 2/3 of the cost of an eligible heating system could qualify for the loan.

(F) Solar equipment;

(G) Any materials used in building a new dwelling, additions to dwellings or remodeling which adds living space;

(H) That part of the cost of the measures for which the dwelling owner receives a state cash incentive.

(g) The costs of materials for "do-it-yourself" jobs may be included in the loan. No labor costs of such jobs shall qualify for the loan.

(2) In order to qualify for a loan, the dwelling owner must submit to the Oregon Department of Energy written permission to inspect the job to verify that the measures have been installed.

(3) In applying for the loan, a dwelling owner shall present to the lender:

(a) For contractor-installed measures, at least one written bid itemizing measures to be included in the loan and their costs. The Oregon Department of Energy may require that contractors use bid forms provided by the Oregon Department of Energy; and

(b) For "do-it-yourself" measures, an itemized list of materials to be installed and their costs.

(4) Lenders may receive a state tax credit in accord with Section 28, Chapter 894, Oregon Laws 1981 as amended by Chapter 749, Oregon Laws 1987, and Chapter 718, Oregon Laws 1991. This applies only to loans which:

(a) Are made to dwelling owners who are or who rent to residential fuel oil customers or wood heating residents and who:

(A) Have received an energy audit completed pursuant to these rules; and

(B) Give the lender a copy of:

(i) The results of the energy audit;

(ii) Certification on a form supplied by the Oregon Department of Energy stating that the dwelling receives space heating from fuel oil or wood; and

(iii) For a furnace or burner replacement, a certification from the contractor on a form supplied by the Oregon Department of Energy that the heating system meets or exceeds the combustion efficiency standards set in these rules.

(iv) Written permission on a form supplied by and submitted to the Oregon Department of Energy to inspect.

(b) Are subject to an annual rate not to exceed 6.5 percent;

(c) Have a term of ten years or less; and

(d) Finance those measures recommended in the energy audit.

(5) Lenders making weatherization loans under Section 28, Chapter 894, Oregon Laws 1981, as amended by Chapter 749, Oregon Laws 1987, and Chapter 718, Oregon Laws 1991, shall:

(a) Keep a copy of the customer's energy audit and the certification that the heating system meets or exceeds the combustion efficiency standards set in these rules, as well as the customer's loan application;

(b) Help the customer fill in a form, given to the customer during the energy audit, stating what measures will be included in the loan; and

(c) Return that form and the heating system certification to the Oregon Department of Energy no later than one week after the loan is closed. (This is the lender's only reporting requirement to the Oregon Department of Energy.)

(6) Eligibility of the lender for any tax credit under Section 28, Chapter 894, Oregon Laws 1981, as amended by Chapter 749, Oregon Laws 1987, and Chapter 718, Oregon Laws 1991, shall not be affected by any dwelling owner's failure to use the loan for qualifying measures.

(7) The borrower must complete installation of the measures financed within 90 days of receiving the loan funds.

Stat. Auth.: ORS 469.040 & 469.165

Stats. Implemented: ORS 469.170

Hist.: DOE 10(Temp), f. & ef. 9-16-77; DOE 1-1978, f. & ef. 1-16-78; DOE 8-1979, f. & ef. 11-27-79; DOE 13-1980, f. 12-15-80, ef. 1-1-81; DOE 7-1981, f. & ef. 12-18-81; DOE 4-1983, f. & ef. 10-10-83; DOE 3-1987, f. & ef. 12-18-87; DOE 2-1991, f. & cert. ef. 10-14-91; DOE 1-2000, f. 3-30-00, cert. ef. 4-1-00; DOE 2-2001, f. 10-5-01, cert. ef. 10-8-01; DOE 2-2003, f. 9-24-03, cert. ef. 10-1-03; DOE 5-2004, f. 10-14-04, cert. ef. 11-1-04

330-060-0060

Oil Audit Standards: General Description of Oil-Heated Dwellings Energy Audit

- (1) The energy audit shall provide a basis to determine which energy conservation measures are recommended as described in OAR 330-060-0010(14).
- (2) The energy audit shall also provide information published by the Oregon Department of Energy about no-cost/low-cost energy-saving practices, about energy conservation measures, and financial incentives available to help pay for the costs of installing those measures.
- (3) The Administrator may approve the use of other audit methodologies, including allowing customers or trade allies to use a form developed by the Oregon Department of Energy, if the Administrator determines that such alternate methodologies will provide the customer with results comparable to those achieved using the audit methodology prescribed by these rules.

Stat. Auth.: ORS 469

Stats. Implemented: ORS 469.675

Hist.: DOE 7-1981, f. & ef. 12-18-81; DOE 3-1987, f. & ef. 12-18-87; DOE 1-2000, f. 3-30-00, cert. ef. 4-1-00; DOE 2-2003, f. 9-24-03, cert. ef. 10-1-03; DOE 5-2004, f. 10-14-04, cert. ef. 11-1-04

330-060-0070

Oil Audit Standards: Calculation Procedures

- (1) The energy savings from energy conservation measures shall be calculated by the Oregon Department of Energy.
- (2) The Oregon Department of Energy may approve use of alternate energy savings calculations, if the calculations and the methodology supporting those calculations are submitted to the Oregon Department of Energy for its review and approval.

Stat. Auth.: ORS 469.040 & 469.165

Stats. Implemented: ORS 469.675

Hist.: DOE 7-1981, f. & ef. 12-18-81; DOE 4-1983, f. & ef. 10-10-83; DOE 3-1987, f. & ef. 12-18-87; DOE 2-1991, f. & cert. ef. 10-14-91; DOE 1-2000, f. 3-30-00, cert. ef. 4-1-00; DOE 2-2003, f. 9-24-03, cert. ef. 10-1-03; DOE 5-2004, f. 10-14-04, cert. ef. 11-1-04

330-060-0075

Oil Audit Standards: Calculation of Cost Effectiveness

- (1) The cost-effectiveness of energy conservation measures shall be calculated by the Oregon Department of Energy.
- (2) The Oregon Department of Energy may approve use of alternate cost-effectiveness calculations, if the calculations and the methodology supporting those calculations are submitted to the Oregon Department of Energy for its review and approval.
- (3) The measure is "cost-effective" if its cost is less than 110 percent of the present value of the cost of fuel oil saved over its assumed life cycle.
- (4) The Oregon Department of Energy must approve all measures that are presumed to be cost-effective. These measures may include items which alone may not save energy but are needed to make recommended energy measures work effectively.

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 469

Stats. Implemented: ORS 469.675

Hist.: DOE 7-1981, f. & ef. 12-18-81; DOE 4-1983, f. & ef. 10-10-83; DOE 3-1987, f. & ef. 12-18-87; DOE 2-2003, f. 9-24-03, cert. ef. 10-1-03; DOE 5-2004, f. 10-14-04, cert. ef. 11-1-04

330-060-0095

Post-Installation Inspections

- (1) The Oregon Department of Energy may inspect energy conservation measures:
 - (a) The Oregon Department of Energy may inspect energy conservation measures installed by customers receiving a cash payment or loan for those measures;
 - (b) The Oregon Department of Energy may inspect installed measures at the customer's request if those measures qualify for a cash payment or loan;
 - (c) The Oregon Department of Energy may require an inspection at the time of the audit if any energy conservation measures qualifying for the cash payment or loan were installed before the audit is completed.
 - (d) The Oregon Department of Energy may require an inspection before disbursing cash payments.
- (2) The inspection shall verify that:

(a) Measures included in the loan or other incentive were installed; and

(b) Workmanship and materials meet industry standards. Installation standards and inspection forms shall be approved by the Oregon Department of Energy. All measures installed shall meet the energy conservation measure specifications. Local codes shall prevail in all cases.

(3) The results of the inspection shall be promptly reported to:

(a) The customer; and

(b) The Oregon Department of Energy.

(4) Inspectors shall have no financial or other interest in the firm that installed the measure(s) inspected.

(5) An inspector shall be able to determine whether the applicable energy conservation measures meet the standards set forth in these rules and specifications. Stat. Auth.: ORS 469

Stats. Implemented: ORS 469.675

Hist.: DOE 7-1981, f. & ef. 12-18-81; DOE 4-1983, f. & ef. 10-10-83; DOE 1-2000, f. 3-30-00, cert. ef. 4-1-00; DOE 2-2003, f. 9-24-03, cert. ef. 10-1-03; DOE 5-2004, f. 10-14-04, cert. ef. 11-1-04