

AHFC FUEL SWITCH POLICY WHEN USING DOE FUND

Switching fuels to save energy for Health and Safety reasons or in circumstances when it will be possible to save energy dollars and reduce pollutants (such as oil to gas) for a Weatherization client through the course of fuel conversion is allowed in the following circumstances, using the approved protocols. Documentation justifying fuel switching under either situation must be maintained in the client file.

APPLIANCE FUEL SWITCHES FOR HEALTH AND SAFETY REASONS:

A subgrantee may change a dwelling's heating/hot water fuel type for the following limited situations without a need for specific approval, but justification for the switch must be included in the client file:

1 Changing from wood or coal heat to other types of fuel-fired heating systems for medical reasons, such as when the client is elderly or disabled and wood or coal preparation is difficult or impossible. The new fuel type shall not require physical effort to use. If the client is not elderly or disabled, the Grantee may obtain a third-party verification of the need.

2 Heat pumps can be installed as a fuel switch option in Southeast and Kodiak, only when the client, due to age or disability, cannot operate a solid fuel system (wood or coal) or health concerns are caused by a fossil fuel system. Documentation must be in the file justifying the installation of a heat pump.

3. Replacing a fuel-fired water heater with an electric water heater for health-and safety concerns when the unit fails maximum depressurization testing and cannot otherwise be corrected. (Example: The new system now passes the maximum depressurization test when the previous one failed.)

4. Replacing a dangerous (back-drafting, electrical issues, fire hazard, etc.) water heating system with a sidearm tank to a boiler.

APPLIANCE FUEL SWITCHES FOR ENERGY EFFICIENCY: The following must be approved on a case by case basis by the AHFC Program Manager:

Switching fuels is allowed in cases when it will be possible to save significant energy dollars and possibly reduce pollutants (such as oil to gas) for a Weatherization client through the course of fuel conversion, keeping in mind the priority of energy savings. ECM calculations must be included with an explanation of the situation to the AHFC Program Manager.

ECM calculations must be included with an explanation of the situation to the AHFC Program Manager when replacing an electric water heater with a storage tank integrated with a fuel fired boiler (i.e., indirect sidearm systems) for the purpose of saving energy. ECM calculations must be included with an explanation of the situation to the AHFC Program Manager.

Procedure for Fuel Switching for Energy Savings (ECM)

Step 1: Conduct energy modeling using AKwarm, input existing appliance fuel and type. Modeling should be conducted using post shell improvement conditions. This will give a more accurate base case for equipment sizing and fuel savings based on equipment load.

(Make sure current library for AKwarm is used along with most current unit fuel cost for client location.)

Step 2: Complete Akwarm and push *Calculate* button for reports.

Step 3: Select *Cost by Component Graph* tab.

Step 4: Select *Make Current Run the Base Case*.

Step 5: Go back to Appliance entry page and change the Fuel source and Type of Appliance.

Step 6: Push calculate button again, and select the *Cost by Component Graph* tab.

Step 7: Select *Compare against Base Case*.

Step 8: Copy *Savings compared to Base Case*, this is the annual savings of installed measure.

The next steps will be on the supplemental excel spreadsheet

Step 9: Paste amount in annual savings cell on the Fuel Change excel spreadsheet.

Step 10: Fill in *Date, Name, Job Number and Location*.

Step 11: Select *existing system, replacement system, fuel types* for both, as well as DOE life expectancy for equipment type .

Step 12: Input *estimated cost of replacement*.

Payback in Years, Savings to Investment (SIR) Total Return for Investment (TRI) will auto calculate.

Step 13: Submit the proposed change documentation to AHFC WAP Program Manager for approval. Include an estimate of cost for the upgrade, Akwarm and Fuel Change worksheet.

Approval Procedure

1. All requests must be made using the forms provide by AHFC and any relevant documentation.
2. The request will be reviewed by Program Manager at AHFC
3. Akwarms will be reviewed by an assigned technical advisor that is qualified to analyze energy modeling data using AKwarm.
4. AHFC will either approve or deny the request in writing.
5. All submitted documents will be maintained in client file at the subgrantee agency.