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# Homegrown Efficiency

*Conservation plays important role in statewide energy goals*

By Mike Federman

The push is on for energy sustainability in Alaska following the approval this year of historic legislation designed to create jobs and develop renewable resources.

The state's goal is ambitious: increase statewide energy efficiency 15 percent by 2020.

Developing the state's renewable resources will be a major component of reaching that goal. Another component is energy conservation.

The state offers opportunities for all Alaskans to participate in energy conservation through weatherization and efficiency improvements to their homes.

## **Weatherization Assistance Program**

Individuals who meet the low- to moderate-income guidelines can apply for the state's Weatherization Assistance Program through the weatherization service provider in their area (see table at right). Eligibility is determined by a resident's income and family size.

## **Weatherization Assistance Program**

| <b>Service Area</b>   | <b>Provider</b>   |
|-----------------------|---|
| Copper Basin & Valdez | Alaska Community Development Corporation<br>tstevenson@alaskacdc.org<br>www.alaskacdc.org<br>(907) 746-5680<br>(800) 478-8080 |

Qualified homeowners and renters receive free residential weatherization to bring their homes up to safe, healthy and energy-efficient standards.

According to the Alaska Community Development Corp., weatherization adds years of life to buildings in Alaska's harsh arctic climate and can save homeowners up to 50 percent off their pre-weatherization heating bills.

Under the program, a house can be weatherized only once, but homes that were weatherized before May 14, 2008, can be reweatherized. Previously weatherized homes, however, will not be as high a

priority as those that have never been weatherized.

Funding for the program comes through the Alaska Housing Finance Corp. (AHFC) and the U.S. Department of Energy.

### Home Energy Rebate Program

Funding through AHFC also is available for rebates for some of the cost of energy-efficiency improvements, including materials and contracted labor to homeowners who increase their existing home's energy rating.

There are no income requirements to participate in the Home Energy Rebate Program, but people who participated in the Weatherization Assistance Program after May 1, 2008, are not eligible.

Homeowners must first request an energy rating by signing up for the program at (877) 257-3228 or [www.akrebate.com](http://www.akrebate.com). After signing up, the program works as follows:

- A rater will do an energy audit and generate an Energy-Efficiency Improvement Options Report that serves as a guideline for AHFC and the homeowner regarding energy savings, cost of improvements and return on the energy improvement investment.
- The homeowner submits the report, a rating reimbursement form and other paperwork to AHFC, which will reimburse the cost of the rating audit up to \$325 within 60 days.
- The homeowner has 18 months from the time of the rating to make efficiency improvements outlined by the rating report. Improvement costs are paid for up front by the homeowner.
- A post-improvement rating is done upon completion of upgrades to determine rebate size. There are five levels of rebates. To be eligible for a rebate, home improvements must increase the energy rating by at least one step. Depending on the extent of improvements, homeowners can receive rebates of \$4,000 to \$10,000 on labor and materials.

Participation in this program is high, so homeowners should expect to be placed on a waiting list for their first rating.

### Engine Block Heaters

Everyday efficiency is another way Alaskans can reduce their energy use.

The benefits of engine block heaters outweigh the costs. A vehicle owner will use less fuel and reduce engine wear when using a block heater. This saves money and helps protect air quality.

Starting a vehicle on a winter day will use more

fuel and create more pollution in the first minutes than when the engine reaches normal operating temperatures, according to Natural Resources Canada (NRCan).

When an engine starts up, it pumps oil throughout the engine block to lubricate moving parts. In a cold engine, the oil is thick and resists flow, so the engine has to work harder to overcome internal friction. Fuel combustion is also less efficient, allowing a sharp increase in pollutants.

Avoid idling your car to warm the engine by installing a block heater. The device warms the coolant, which in turn warms the engine block and lubricants. The engine will start more easily and reach its peak operating temperature faster.

At minus-4 degrees Fahrenheit, block heaters can improve fuel economy by as much as 10 percent, according to NRCan. For a single short trip on a cold day, fuel savings could be as much as 20 percent.

To reduce the cost of electricity used to run a block heater, install a programmable timer to turn on your block heater a few hours before your morning commute.

There is no benefit to leaving a block heater plugged in all night. Studies show that two to four hours of heating time is all that is necessary to properly warm an engine. A timer conserves energy, reducing your electric bill and adding to your fuel and engine wear savings. ■

## Internet Resources

- ▶ [www.akenergyefficiency.org](http://www.akenergyefficiency.org)  
Home and workplace conservation and energy efficiency information.
- ▶ [www.ahfc.state.ak.us/energy](http://www.ahfc.state.ak.us/energy)  
The Alaska Housing Financing Corp.'s Weatherization Assistance Program and rebate information for home energy improvements and appliances.
- ▶ [www.akenergyauthority.org](http://www.akenergyauthority.org)  
Alaska Energy Authority's "Alaska Energy Pathway," a guide for using local resources to improve energy efficiency.
- ▶ [www.muni.org/departments/health/environment/airq/pages/whyplug20f.aspx](http://www.muni.org/departments/health/environment/airq/pages/whyplug20f.aspx)  
Block heater information from the municipality of Anchorage.