

02/04/13

Overview:

Alaska Housing

Finance

Corporation

Weatherization

Programs

Update

<TARGET><BILL></BILL><SUBJECT>02-04-13 Overview Alaska
Housing Finance Corporation Weatherization Programs
Update</SUBJECT><COMM>HENE28</COMM></TARGET>



AHFC Energy Programs Update



Funding Since 2008

Home Energy Rebate

Weatherization

Totals

\$217.5 million

\$292.5 million

Grand Total

\$510 million

Rebate/Wx by the Numbers

- Home Energy Rebate Program
17,908 Homes completed
- New Home Rebate Program
1,751 Homes completed
- Weatherization Program
8,513 Homes completed

More than **28,000** homes energy efficient!

Rebate/WX Program Impacts

- Alaska housing stock is safer, better quality and more affordable to heat
- More than **4,000** jobs created and retained
 - Direct jobs – 2,492
 - Indirect jobs – 1,780
 - Jobs from spent energy savings – 407

Rebate/WX Program Energy Savings

Total Energy Saved Annually - 2.3 trillion BTUs

Equivalent to:

- 406,334 Barrels of Oil or,
- 23,567,420 CCF of Gas or,
- 17,077,840 Gallons of Fuel Oil or,
- 690,721 MegaWatt Hours of Electricity

Savings

Total Estimated Energy Cost Savings Per Year to
Alaskan Homeowners and Renters

More than \$37 million

Benefit:

Savings are spent locally, recirculating
through the economy

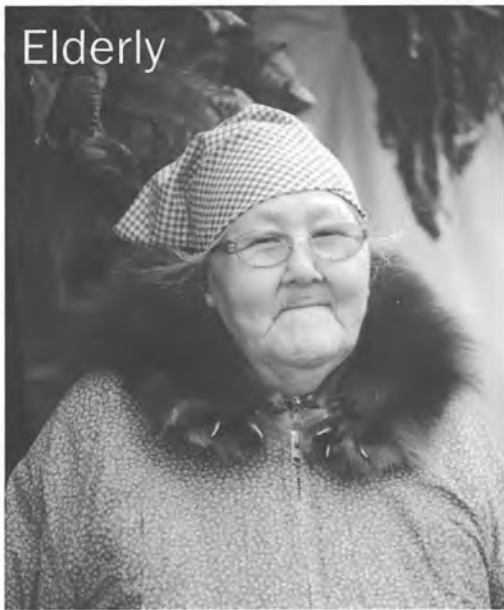
Savings from 8,275 Anchorage Homes

Is enough energy to power **3,437** homes in
the Anchorage area for **1** year

or

Power the Performing Arts Center, Egan
Convention Center, Sullivan Arena, Robert
Atwood Building and the Dena'ina Center for
8.7 years!

Weatherization Program



Elderly

AHFC Stock Photos



Children



Alaskans with Disabilities

Weatherization Program

Health
and Safety

Energy
Efficiency

Homeowner
Education

Comfort

Building
Durability



Photo Credit: Jimmy Ord

Employs Local Community Members



Photo Credit: Jimmy Ord

Weatherization Program Update

Current totals December 31, 2012

| | |
|----------------|----------|
| Total expended | \$199.7m |
| Units complete | 8,513 |

Projected totals March 31, 2013

| | |
|----------------------|--------|
| Total expended | \$230m |
| Total units complete | 10,500 |

Projected totals March 31, 2014

| | |
|----------------|---------|
| Expended | \$292.5 |
| Units complete | 13,500 |

Weatherization Program

Savings

Average home BTU savings

60.8 million
BTU/year

Average home energy savings

28%

Average home cost savings

\$1,336/year

Weatherization Program

| | Southeast (Outside Juneau) | Anchorage | Fairbanks | NANA Region |
|---|----------------------------------|-----------|-----------|-------------|
| | (n=562) | (n=518) | (n=807) | (n=106) |
| Average Energy Savings Per Year (Million BTUs) | 54.4 | 54.2 | 56.6 | 62 |
| Average reduction home energy use | 31% | 22% | 23% | 40% |
| Average cost savings per home (\$) | \$1,223 | \$490 | \$1,394 | \$2,335 |

Home Energy Rebate Program

Open to all Alaskans

No income requirements

Owner-occupied, year-round residences

Homeowners pay upfront and are then rebated

“As-Is & Post” energy ratings



AHFC Stock Photo

5 Star Plus New Home Rebate



| | |
|----------------|---------------|
| Rebates | 1,751 rebates |
| Total Expended | 13.1 million |

Home Energy Rebate Program

Stimulating an Economy

17,908 homeowners have spent more than
\$209.1 million on energy efficiency
improvements.

Home Energy Rebate Program

Program Snapshot

Average Improvement Costs

| |
|--------------------------------|
| \$11,681 spent |
| -\$6,389 rebate |
| -\$325 As-Is |
| -\$175 Post |
| <hr/> |
| = \$4,792 homeowner investment |

Home Energy Rebate Program

Average homeowner investment

\$4,792

Average home cost savings

\$1,464/year

Investment pays for itself in 3.3 years!

Home Energy Rebate Program

| | Juneau (n=1,012) | Anchorage (n=9,566) | Fairbanks (n=2,361) | Bering Straits (n=13) | Ahtna (n=37) |
|---|---------------------|------------------------|------------------------|--------------------------|-----------------|
| Average cost per home | \$12,089 | \$12,062 | \$11,800 | \$15,036 | \$8,783 |
| Average cost savings per home per year | \$2,219 | \$1,033 | \$2,880 | \$1,960 | \$1,954 |
| Average rebate per home | \$6,679 | \$7,204 | \$6,152 | \$6,114 | \$5,428 |
| Average payback per home (homeowner funds) in years | 2.4 | 4.7 | 2 | 4.5 | 1.7 |

Home Energy Rebate Program

Savings

Average home BTU savings

103 million
BTU's/year

Average home energy savings

34%

Home Energy Rebate Program

Results

April 2008 – January 25, 2013

| | |
|---------|--------|
| Rebates | 17,908 |
| As-Is | 32,294 |

Waitlist

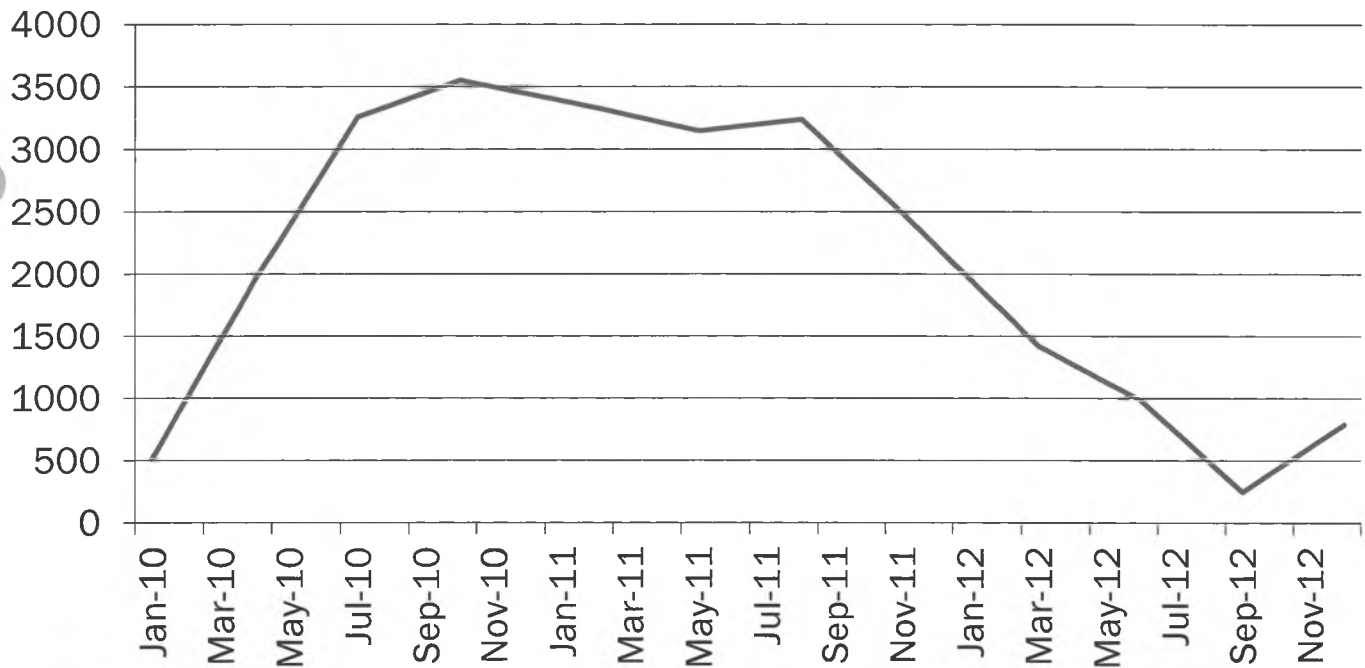
As of 1/25/13

511



Home Energy Rebate Program

Waitlist





Home Energy Rebate Program Marketing

Rural Marketing Effort

Radio Advertisements in South Central, Fairbanks and Juneau

Second Mortgage for Energy Conservation

Second mortgage up
to \$30,000

15 Year Loan at the
Taxable Rate

Active Loans: 65

Loans Paid Off: 82



AHFC Stock Photo

Alaska Energy Efficiency Revolving Loan Program (AEERLP)

\$250m available for energy efficiency improvements for:

- | | |
|-----------------------|-----------------------|
| -Schools | -State facilities |
| -University of Alaska | -Municipal facilities |

Savings from energy efficiency improvements may be used to pay off the loan



Photo Credit: CAEC

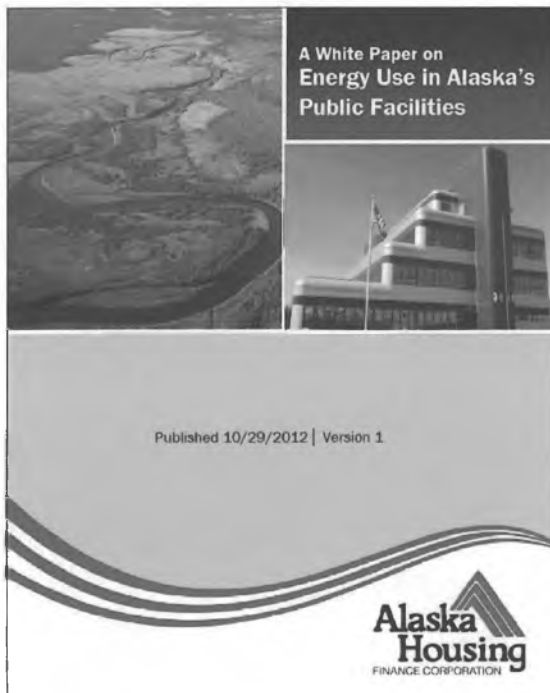
Energy Use in AK Public Facilities



- Over 1,200 buildings benchmarked

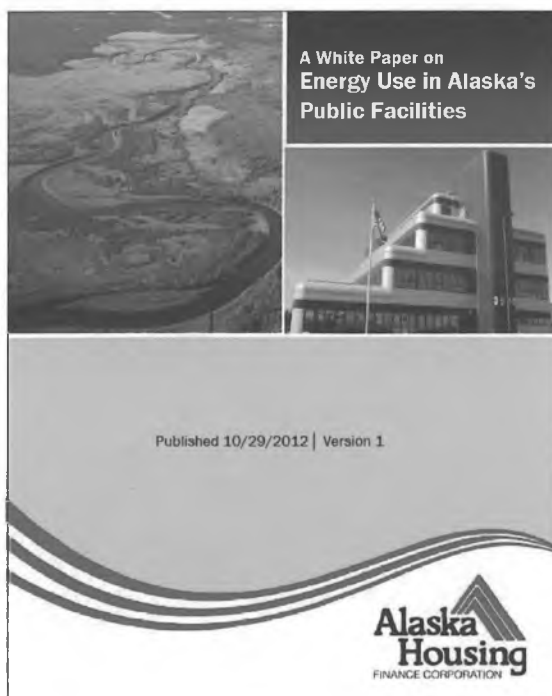
- 327 buildings audited

Energy Use in AK Public Facilities



- Adopt and enforce energy codes
- Require all publicly owned buildings track their energy use
- Establish a level of accountability

Energy Use in AK Public Facilities



Over All Findings

- Upwards of 5,000 publicly owned buildings exist in Alaska
- Estimated energy cost equates to approximately \$641,245,000 to the public each year
- At the average savings per building of \$25,000 the potential statewide annual savings would equal \$125,000,000

Note: Buildings were from a non-random sample

ARIS

Alaska Retrofit Information System

- AHFC's ARIS database has become the clearinghouse for information on Alaska buildings
- Used primarily by AHFC, DOT&PF, AEA, with all state agencies as users
- Over 70,000 unique records
- Available to local governments, school districts, boroughs and municipalities



ARIS

Alaska Retrofit Information System

- Home Energy Rebate Program Outcomes
- Alaska Energy End Use Study
- Energy Use in Alaska's Public Facilities
- Snapshot: The Home Energy Rebate Program
- Weatherization Assistance Program Outcomes
- Energy Efficiency of State, Municipal and Tribal Buildings in Alaska: Metrics and Analysis



Efficiency First

More than 28,000 homes
more efficient

More than 4,000 jobs
created and retained

2.3 Trillion BTU's saved
annually





AHFC Stock Photo

Jeff Turner

From: Stacy Schubert <sshubert@ahfc.us>
Sent: Monday, February 04, 2013 1:02 PM
To: Jeff Turner; David Talerico
Cc: John Anderson; Dan Fauske; Cary Bolling
Subject: House Energy follow-up

Hi Jeff & Dave:

At the request of this morning's House Energy Committee, Alaska Housing Finance Corporation is following up with the following resources. For the sake of efficiency and a fear of burdening committee members with too much paper, we are providing links but will certainly be happy to provide hard copies to any member who requests such. I assume you will forward these to each member but I am happy to do so. Note also that a second email will follow soon that includes responses to questions posed during the committee but require a bit more time to gather (i.e., number of 4 star and greater homes, etc.)

Follow-up is organized by program highlighted by bold text.

Home Energy Rebate

General information <http://www.ahfc.us/efficiency/energy-programs/home-energy-rebate/>

- All Alaskan homeowners may participate in the Home Energy Rebate Program.
- There are no income requirements or limitations.
- Only owner-occupied, year-round residences are eligible.
- Only one rebate per dwelling can be given.
- Homeowners pay upfront and are then reimbursed for making the eligible improvements.
- Before work ("As-Is") and after audit ("Post-Improvement") energy ratings are required.

ISER report, including spending impact and jobs created/retained:

http://www.ahfc.us/files/4613/5769/3742/2012_05_16-HERP.pdf (This report also included input from Cold Climate Housing Research Center – CCHRC – in Fairbanks).

Program Outcomes, including 2011 house district-specific information beginning on page 27: http://www.ahfc.us/files/2013/5769/3849/herp_outcomes_062612.pdf

New Home Rebate

General information: <http://www.ahfc.us/efficiency/energy-programs/new-home-rebate/>

- \$7,500 is available for the purchase of a newly constructed 5 Star Plus Home.
- Not more than one year from time of completion
- For the original owner
- Must meet all AHFC property financing requirements and have a 5 Star Plus energy rating. (An AHFC loan is not required.)
- For purposes of funding, this incentive is provided through the Home Energy Rebate program.

Weatherization

General information <http://www.ahfc.us/efficiency/energy-programs/weatherization/>

- Individuals who meet income guidelines may apply for the Weatherization Program through the weatherization service provider in their area (For someone living in a home owned by a state-designated regional housing authority, contact the housing authority directly.)
- Both homeowners and renters may apply.
- The weatherization provider will provide program services at no cost to qualified applicant, averaging \$11,000 per home in urban Alaska and \$30,000 per home in remote-rural Alaska, allowing providers maximum flexibility to achieve greatest impact.
- Individuals may not participate in both the Weatherization Program and Home Energy Rebate Program.
- The program is subject to funding availability and preference is giving to seniors, individuals with disabilities and families with young children.

District-specific median income guideline chart as determined by U.S. Department of Energy (DOE):
http://www.ahfc.us/files/1513/5551/2949/income_limits.pdf

Weatherization Service Providers <http://www.ahfc.us/efficiency/energy-programs/weatherization/weatherization-service-providers/> and Housing Authorities: <http://www.aahaak.org/> .

Program Outcomes, including 2011 senate district-specific information beginning on page http://www.ahfc.us/files/6313/5769/3840/wx_assistance_prog_outcomes.pdf

Second Mortgage for Energy Conservation Loan, offering homeowners up to \$30,000

General Information: <http://www.ahfc.us/efficiency/energy-programs/second-mortgage-energy-conservation/>

Public Facilities:

A link to the *White Paper on Energy Use in Alaska's Public Facilities* that addresses results and provides energy efficiency recommendations following benchmarking of 1,200 publically-owned buildings, and completion of 327 Investment Grade Audits (IGAs)2.

http://www.ahfc.us/files/3313/5769/3854/public_facilities_whitepaper_102212.pdf. (To see results of audits performed by ANCSA region, visit this page: <http://www.ahfc.us/pros/energy-programs/energy-programs/energy-efficiency-public-facilites/>)

Public Facilities Access to \$250 million Energy Efficiency Revolving Loan Fund:

General information: <http://www.ahfc.us/pros/energy-programs/energy-efficiency-revolving-loan-fund-aerlp/>

- This loan is administered by AHFC and provides financing for permanent energy efficient improvements to buildings owned by regional educational attendance areas, by the University of Alaska, by the state, or by municipalities in the state.
- Borrowers obtain an Investment Grade Audit as the basis for making cost-effective energy improvements, selecting from the list of energy efficiency measures identified. All of the improvements must be completed within 365 days of loan closing.
- Guaranteed savings from energy efficiency improvements are used to repay the loan.

Finally, for clarity:

Energy acronyms/Definitions referenced in today's Hearing:

AkWarm--An energy software program developed by AHFC to evaluate the energy performance of homes.

ARIS-- Alaska Retrofit Information System developed by AHFC as a database to track Alaska building energy performance.

Thank you very much for the opportunity to allow AHFC to present information about these energy efficiency measures. We are happy to answer any additional questions that may arise.

Sincerely,

Stacy



Stacy Schubert, IOM, MBA
Director, Governmental Relations & Public Affairs

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Jeff Turner

From: Stacy Schubert <sshubert@ahfc.us>
Sent: Tuesday, February 12, 2013 11:21 AM
To: Jeff Turner
Cc: Dan Fauske; John Anderson
Subject: House Energy Follow-up Part II

Hi Jeff:

As you recall, a number of questions were asked at last week's House Energy committee that required some data collection from Alaska Housing Finance Corporation. The following should address all outstanding questions. If we have missed anything, please let me know. As with Part I of the reply delivered last week, thank you in advance for distributing to all members.

Sincerely,

Stacy

Question: What is the number of homes built in Alaska prior to 1990?

Answer: According to the 2009-2011 American Communities Survey for the State of Alaska, here is the information on the number of homes built prior to 1990:

| | # | % of All Housing Units |
|-----------------|----------------|------------------------|
| Owner-Occupied | 113,138 | 69% |
| Renter-Occupied | 68,762 | 75% |
| Total | 181,900 | 71% |

Question: What percentage of homes in Alaska are 4 star, 5 star, etc.?

Answer: AHFC only has data on the homes that have participated in our programs. The Home Energy Rebate program shows the following:

| | <u>"First" Rating</u> | <u>"Post" Rating</u> |
|-------------|-----------------------|----------------------|
| 1 Star | 4.80% | 0.01% |
| 1 Star Plus | 4.91% | 0.34% |
| 2 Star | 13.17% | 0.90% |
| 2 Star Plus | 23.17% | 2.29% |
| 3 Star | 18.59% | 4.57% |

| | | |
|-------------|--------|--------|
| 3 Star Plus | 17.15% | 11.54% |
| 4 Star | 11.81% | 29.04% |
| 4 Star Plus | 5.40% | 38.10% |
| 3 Star | 0.91% | 12.12% |
| 5 Star Plus | 0.09% | 1.08% |

Question: What is the total number of Weatherization program applications submitted each year?

Answer: Since applications are handled through grantees (Four service providers and 13 housing authorities), AHFC does not have a readily available listing of total applicants statewide. Rather, AHFC relies on the grantees to provide an annual plan to AHFC which estimates the number of homes each expects to complete. To respond to this question, AHFC contacted the Fairbanks grantee, Interior Weatherization, that weatherizes about 500 units per year. They estimate they have between 500-700 applicants a year.

Question: What is the Fairbanks waitlist for weatherization?

Answer: According to Interior Weatherization, the waitlist for weatherization in Fairbanks is 235.

Question: How does AHFC estimate cost and BTU savings?

Answer: Cost and BTU savings are calculated using the AkWarm Energy Rating Software, developed specifically with our state's various geographic and climatic conditions. The software references updated statewide fuel price data and models costs and savings.

Question: What is the amount of spending on life/safety measures vs. energy improvements (in the weatherization program)?

Answer: The Weatherization program does not track the investment in health/safety measures for each unit. The amount is included in project costs because both health/safety and energy improvements are closely related. The health/safety measures that are performed are all tied to the energy improvements. There are several mandatory health/safety measures performed on every home:

1. Smoke detectors
2. Carbon monoxide detectors
3. Correction of combustion testing failures
4. Whole house ventilation

5. Exterior vented range hood fan over gas range

Question: Are condo's able to take advantage of the Second Mortgage for Energy Conservation?

Answer: Yes. A condo unit owner may utilize this program for the unit. Additionally, a condo association may utilize AHFC's Homeowner Association Loan Program for common area energy improvements.



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