

01/27/15

Overview:

AHFC -

Energy

Efficiency

Programs

<TARGET><BILL></BILL><SUBJECT>01-27-15 Overview AHFC -
Energy Efficiency
Programs</SUBJECT><COMM>HENE29</COMM></TARGET>

Alaska Housing Finance Corporation

Energy Efficiency Programs Overview

House Energy Committee – January 27, 2015

Presentation Topics

- Energy Efficiency Framework
- Home Programs
- Public Programs
- Tools for Homeowners
- Partnerships
- Efficiency First

Framework and Measurement Tools

Building Energy Efficiency Standard,
Home Energy Rating System,
Alaska Retrofit Information System

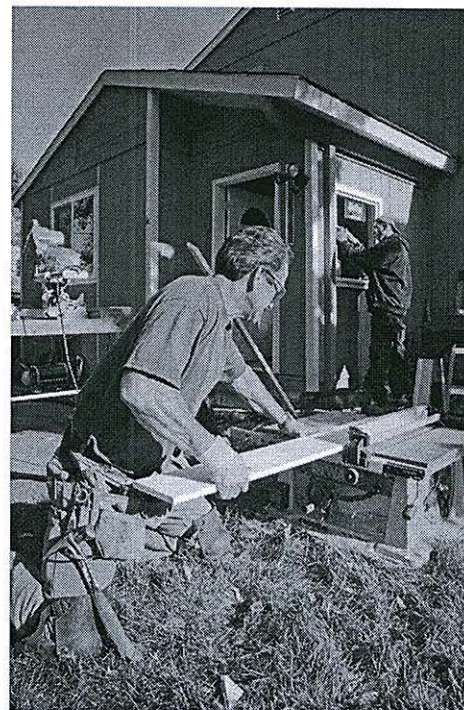
BEES

Building Energy Efficiency Standard

Established 1992

Promote construction of energy-efficient buildings

IECC 2012
ASHRAE 62.2
AK Amendments



HERS Home Energy Rating System

Home Energy Rating Certificate

The Home Located At:

*This Street
Palmer, Alaska*

Has Been Energy-Rated As:

★★★★★
Five Star

Overall Efficiency of Home

90.4 points

BEES Compliance

Pass

Amount of CO2 Produced by the Home

27,771 pounds per year

Breakdown of Heating Costs, \$ Per Year

Floor	\$55
Wall/Door	\$305
Window	\$83
Ceiling	\$55
Air/Vent	\$199
Htg System Loss	\$272
Hot Water	\$301

Projected Annual Energy Costs

\$2,539 per year

Client: One Awesome House Rater: My Rater, Here in AK Date: 9/22/2012
Rater's City: Anchorage, AK 99504 Contact:
ver. 2.3.1.0, library: 9/24/2013, file: Sample.hm2, Rating Type: BEES, Rebate ID: 21,440

I certify that this Rating is true and correct, to the best of my knowledge and belief: _____
Rater Signature

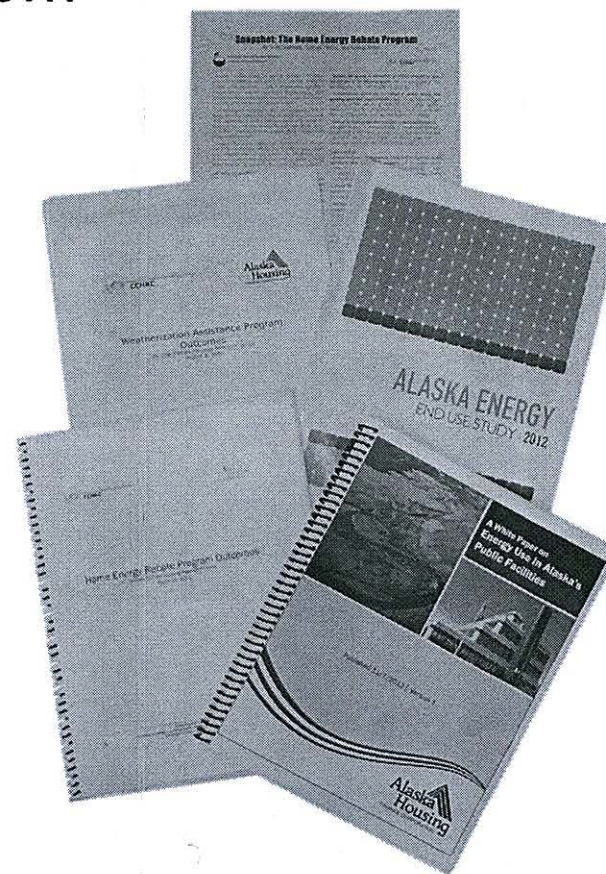
4300 Boniface Parkway | Anchorage, Alaska 99504 | P.O. Box 101020 | Anchorage, Alaska 99510
(907) 258-6171 | FAX: (907) 258-6172 | TDD: (907) 258-6173 | www.ahfc.us

AkWarm Energy Modeling Software

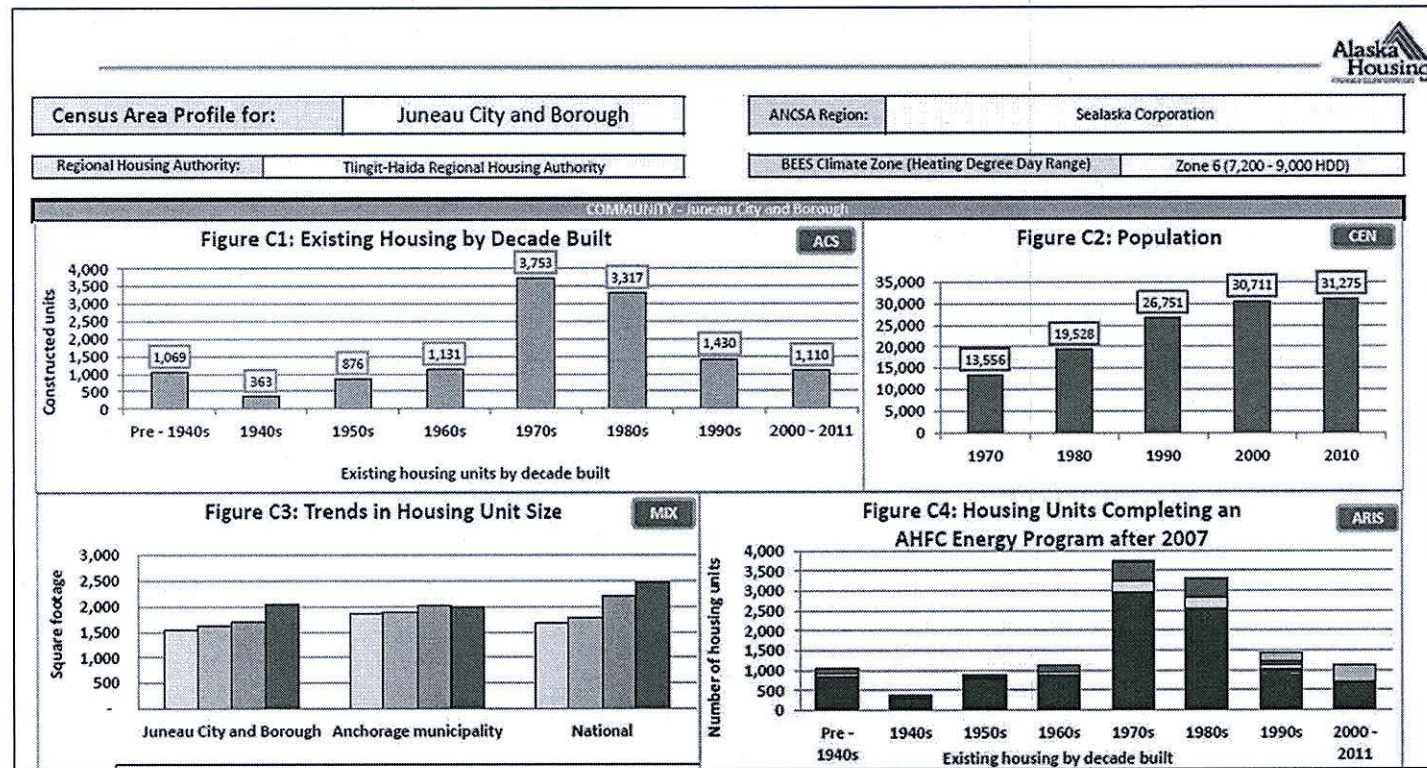
ARIS

Alaska Retrofit Information System

- ❑ AHFC's ARIS database has become the clearinghouse for information on Alaska buildings
- ❑ More than 75,000 unique records
- ❑ Information from the database may be used for policy decisions, research, program measurement, studies and reports, and much more

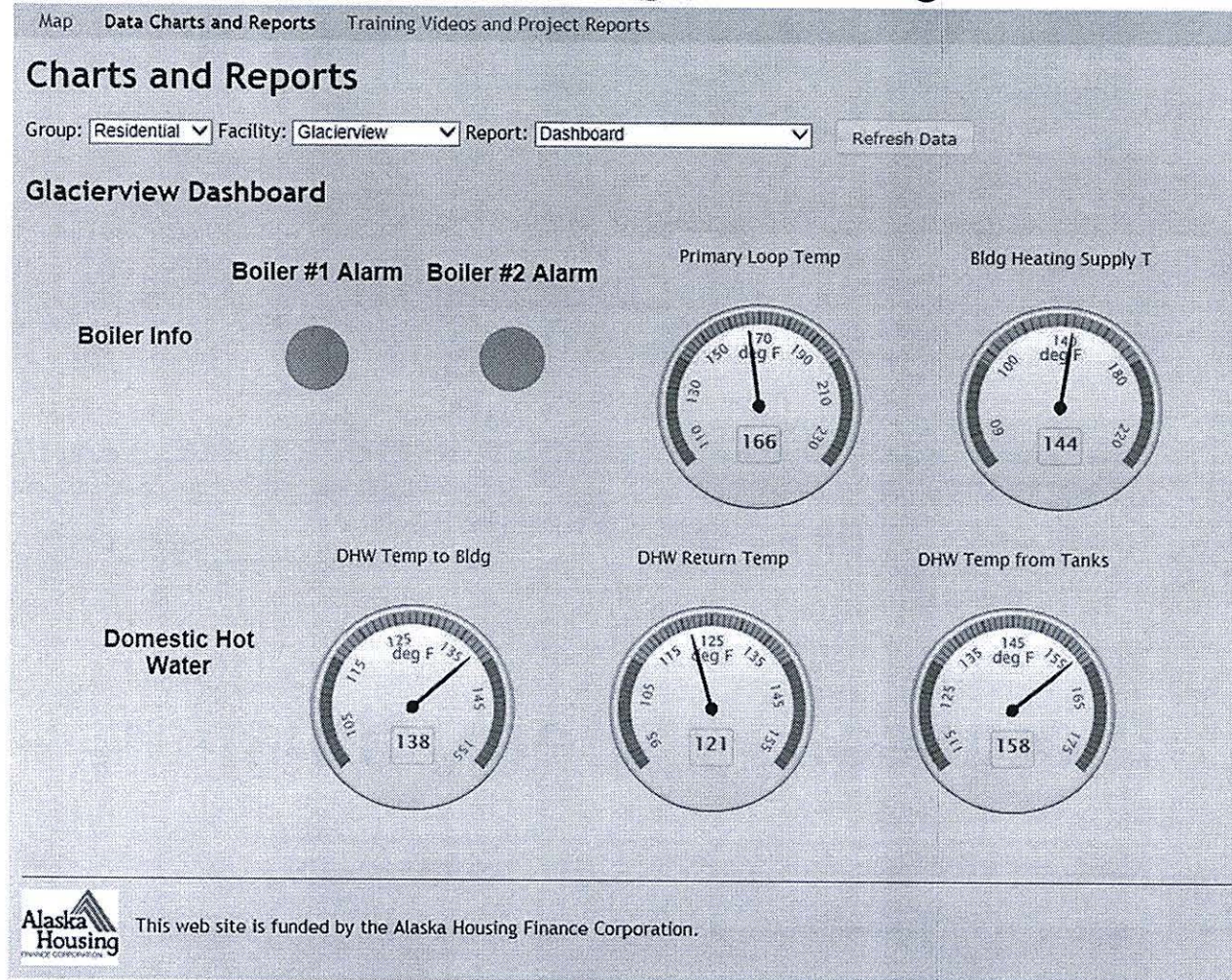


2014 Housing Needs Assessment



Juneau City and Borough

AHFC Building Monitoring



Home Programs

Rebate and Weatherization

Weatherization Program

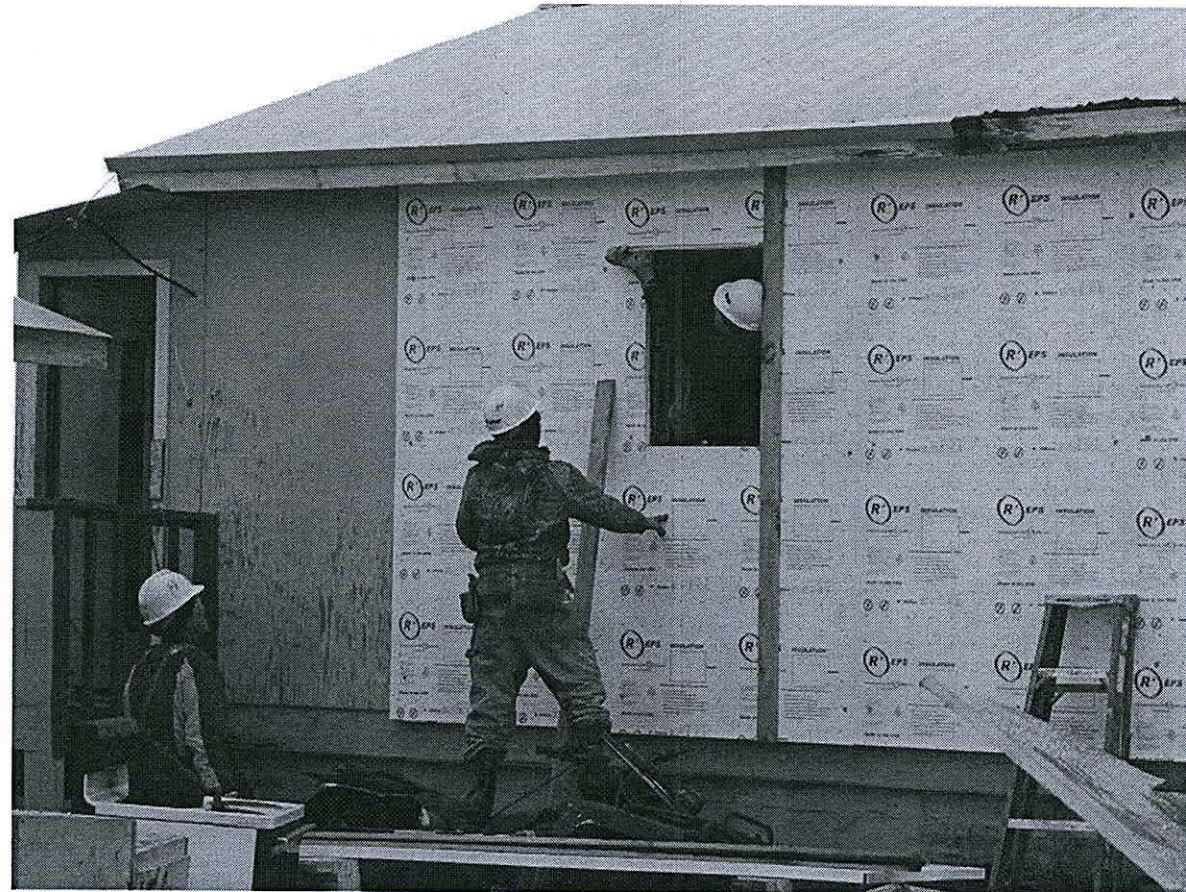
Health
and Safety

Energy
Efficiency

Homeowner
Education

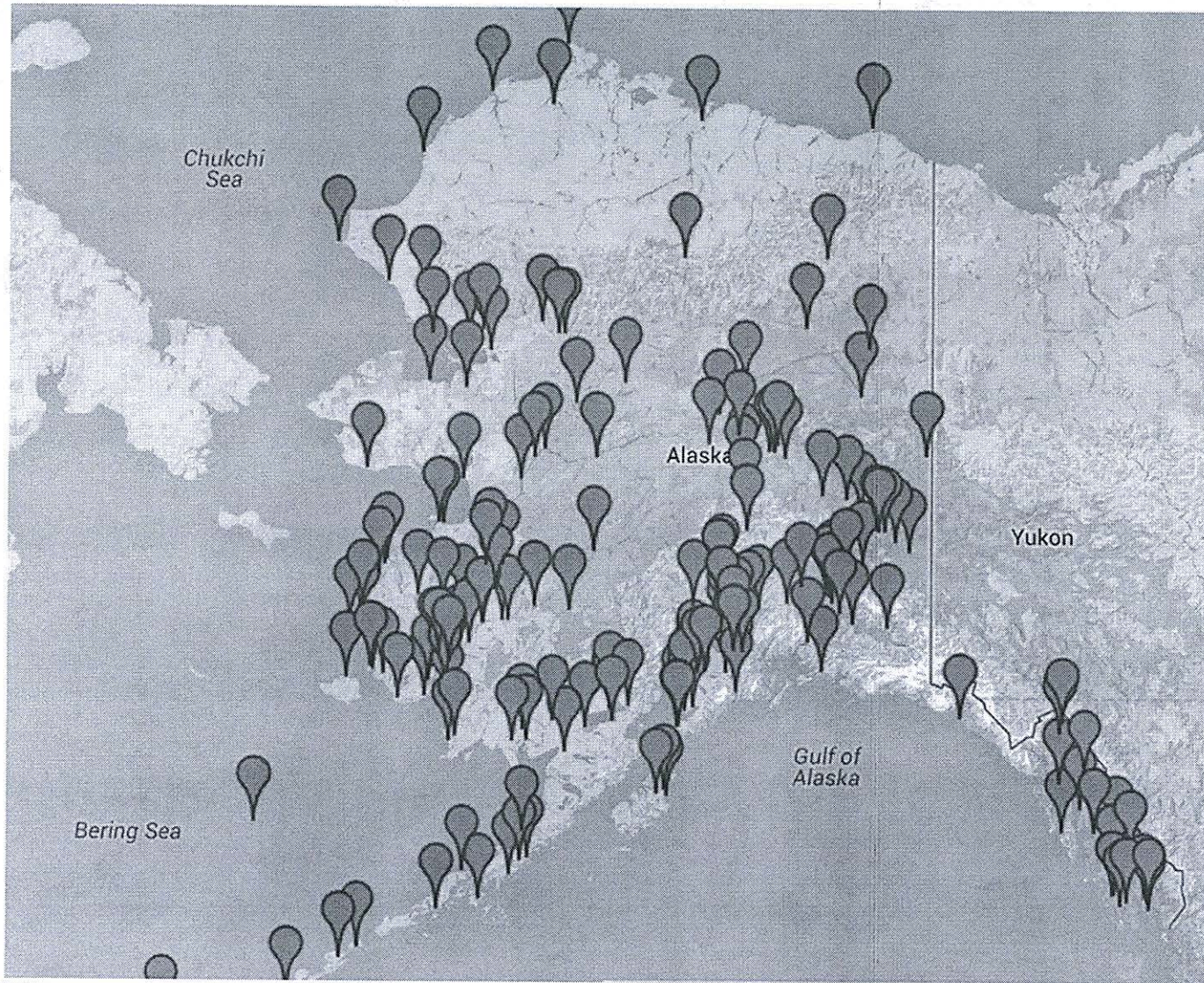
Comfort

Building
Durability



Weatherization Program by the Numbers





Weatherization Program

Savings

Average home BTU savings

60.8 million
BTU/year

Average home energy savings

28%

Home Energy Rebate Program

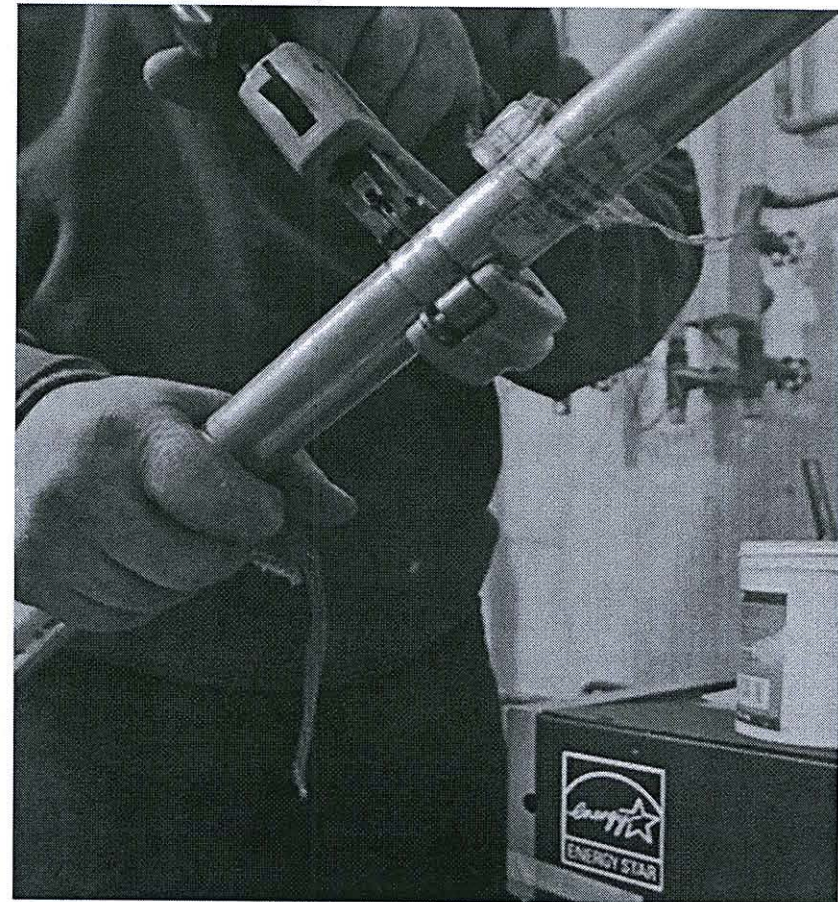
Open to all Alaskans

No income requirements

Owner-occupied, year-round residences

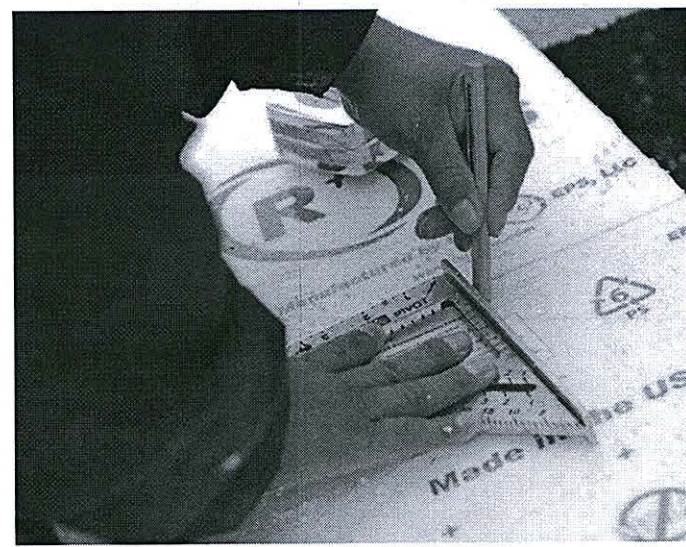
Homeowners pay upfront and are then rebated

“As-Is & Post” energy ratings



New Home Rebate for New Construction

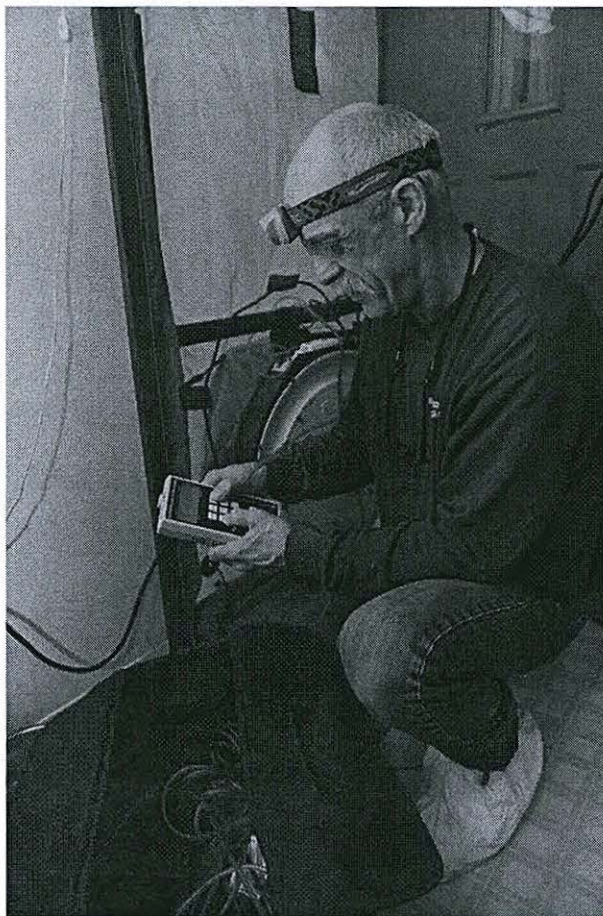
<u>Points</u>	<u>Rating</u>
0-39	1 Star
40-49	1 Star +
50-59	2 Star
60-67	2 Star +
68-72	3 Star
73-77	3 Star +
78-82	4 Star
83-88	4 Star +
89-91	5 Star
92-94	5 Star +
95-100	6 Star



\$7,000 rebate for 5 Star Plus

\$10,000 rebate for 6 Star

Home Energy Rebate by the Numbers



22,447

Rebates for Existing
Homes

Rebates for Newly
Constructed Energy
Efficient Homes

63 – 6 Star

2,613 – 5 Star Plus

Home Energy Rebate Program

Program Snapshot

Average Improvement Costs

\$11,681 spent
-\$6,389 rebate
-\$325 As-Is
-\$175 Post

**= \$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

Stimulating an Economy

22,447 homeowners have spent more than
\$262 million on energy efficiency
improvements.

<i>Out of Pocket Homeowner Spending</i>	\$107,566,024
<i>State Reimbursement</i>	\$154,637,383

Home Energy Rebate Program

Savings

Average home BTU savings

103 million
BTU's/year

Average home energy savings

34%

Public Programs

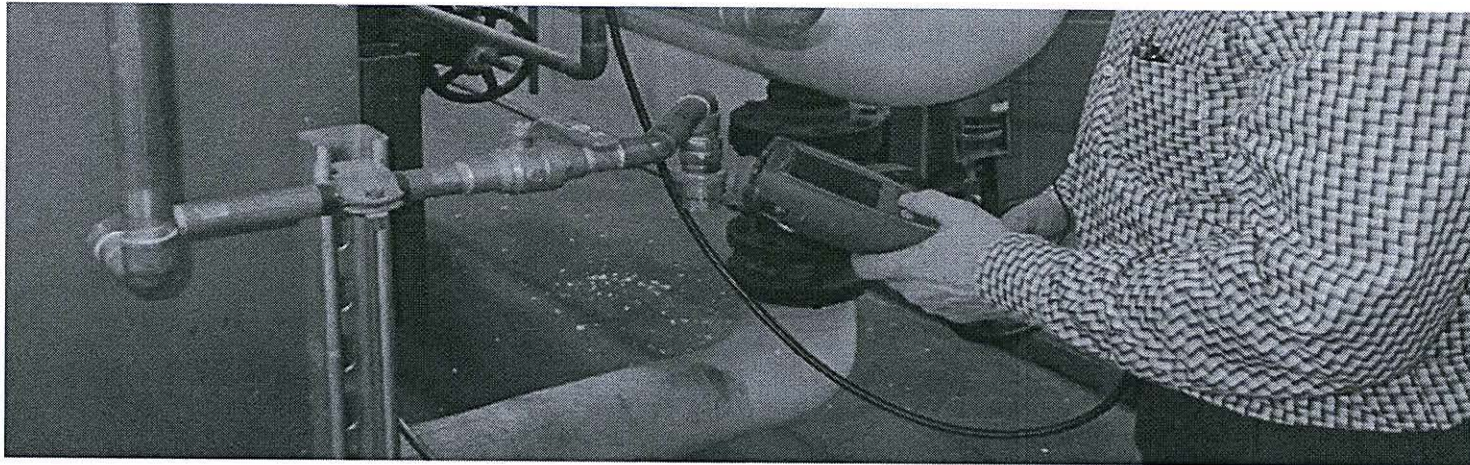
Alaska Energy Efficiency Revolving Loan Program

Alaska Energy Efficiency Revolving Loan Program (AEERLP)

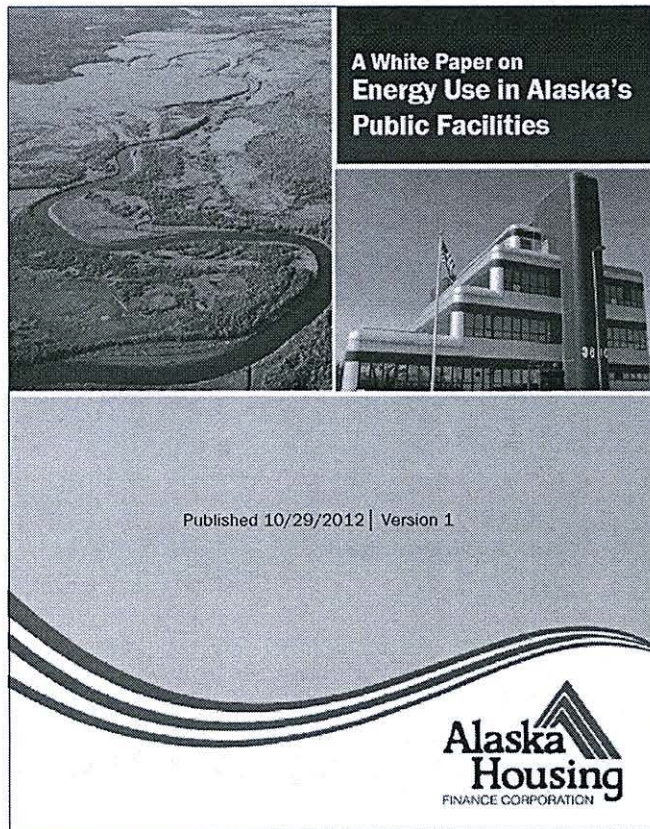
\$250 million in bond authority for energy efficiency improvements:

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

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



Energy Use in Alaska Public Facilities

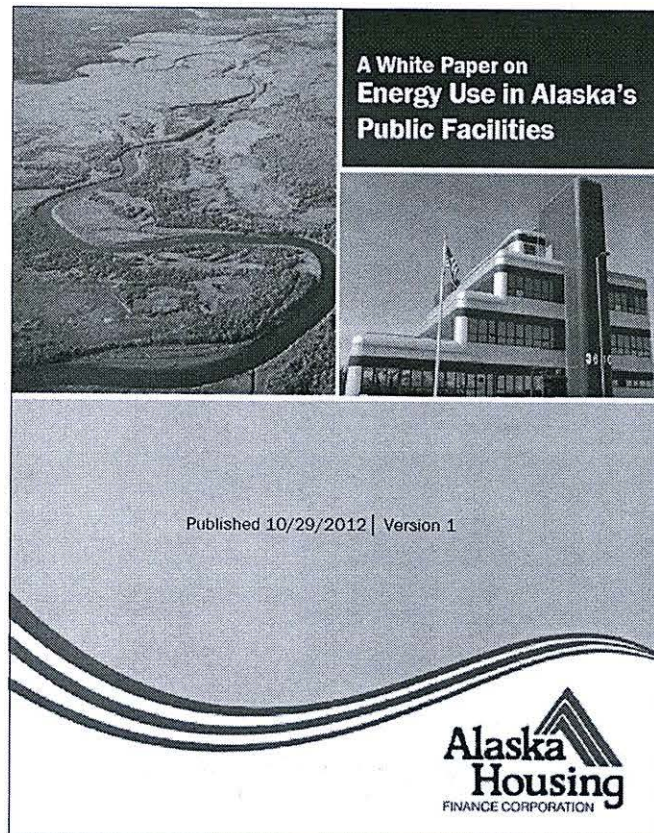


Overall Findings

- 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

Energy Use in AK Public Facilities



- Adopt and enforce energy codes
- Track energy use
- Establish a level of accountability

Tools for Homeowners

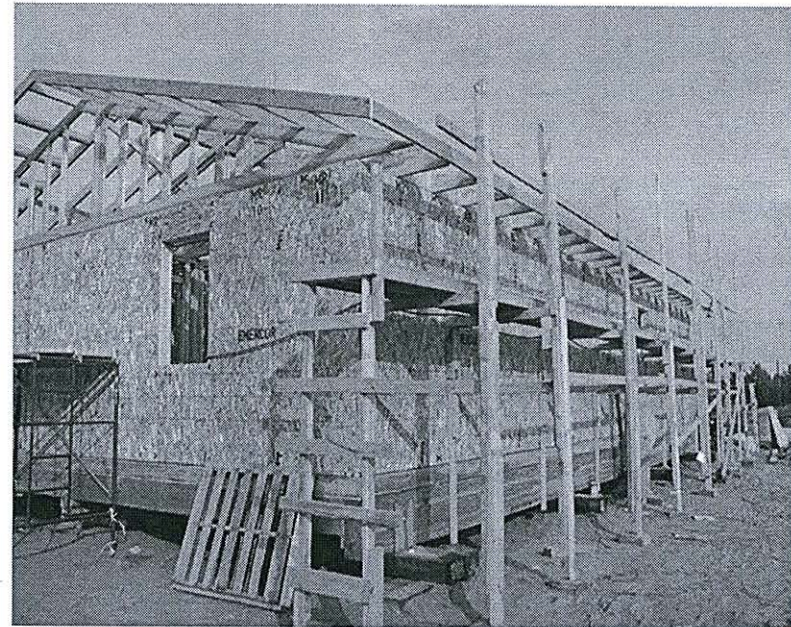
Financing and Education

Energy Efficiency Interest Rate Reduction

Finance with AHFC

Applies to first \$200,000
of the loan amount

New Construction or
Retrofit



Second Mortgage for Energy Conservation Loan

Second mortgage up
to \$30,000

15 Year Loan at the
current rate

Partner with Alaska
USA Federal Credit
Union



Energy Efficiency Education

Free workshops throughout the state and
regularly in South-Central



Partnerships

- › Alaska Energy Authority
- › Cold Climate Housing Research Center
- › Housing Authorities
- › Weatherization Service Providers
- › Alaska Craftsman Home Program
- › Wisdom and Associates
- › Information Insights
- › Resource Data Inc.
- › Analysis North
- › Alaska Works Partnership
- › Cotter and Noson LLC
- › Renewable Energy Alaska Project

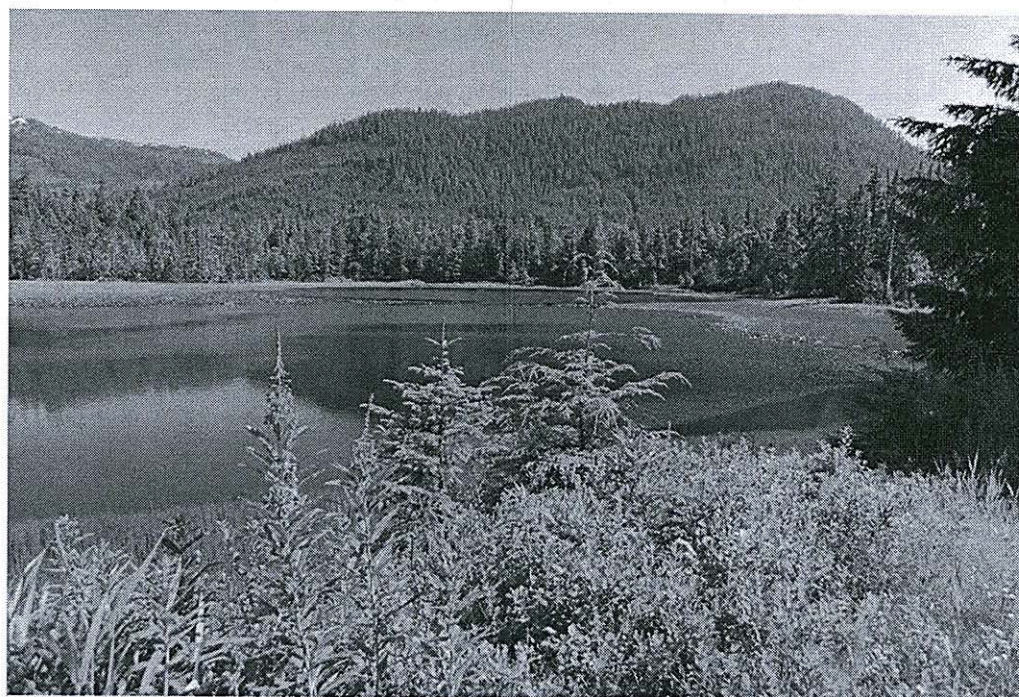
Efficiency First

Since 2008:

More than 40,500
efficient homes

More than 5,000 jobs

3.2 Trillion BTU's saved
annually



Rebate/Weatherization Program Energy Savings

Total Energy Saved Annually – 3.2 trillion BTUs

Equivalent to:

- 558,922 Barrels of Oil or,
- 32,417,485 Ccf of Gas or,
- 23,490,931 Gallons of Fuel Oil or,
- 950,102 MegaWatt Hours of Electricity

Thank You

