

**10-22-10
Update:
Energy
Projects &
Appropriations**

<target><bill></bill><subject>10-22-10 Update Energy Projects
and Appropriations</subject><comm>HENE26</comm></target>

House Special Committee on Energy

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AGENDA

Friday, October 22nd, 2010

9:00 a.m. – 12:00 p.m.

Room 501, Akosofu Building, Fairbanks, AK

UPDATE ON ENERGY PROJECTS AND APPROPRIATIONS

****Testimony by Invitation Only****

Welcoming Remarks from Luke Hopkins, Mayor, Fairbanks North Star Borough

Steve Haagenson, Executive Director, Alaska Energy Authority

Bob Brean, Director of Research & Development, &

Cary Bolling, Energy Specialist, Alaska Housing Finance Authority

Julie Estey, Business Director, Alaska Center for Energy and Power

Jack Hebert, President / CEO, Cold Climate Housing Research Center

AHFC Energy Programs

Rebate, Weatherization, Revolving Loan

LEGISLATIVE REPORT

10/22/2010



Overview

- \$200 million for weatherization
(income-based, no-cost program)
- \$100 million for rebates
(for those NOT qualifying for weatherization program:
rebates for eligible improvements - ratings required)
- \$60 million additional for rebates 9/2008
(to carry program into next calendar year)
- Large training component for both programs



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Allocations

	Rebate	Weatherization
Anchorage Region	\$26 million	• \$34 million
Southcentral Region	\$16 million	• \$24 million
Fairbanks Region	\$17 million	• \$29 million
Interior Region	\$2 million	• \$12 million
Juneau Region	\$4 million	• \$12 million
Southeast Region	\$5 million	• \$14 million
Northern Region	\$4 million	• \$18 million
Western Region	\$5 million	• \$20 million
Southwest Region	\$2 million	• \$12 million

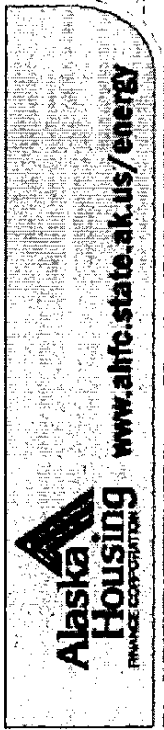


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Weatherization PROGRAM

\$200 Million

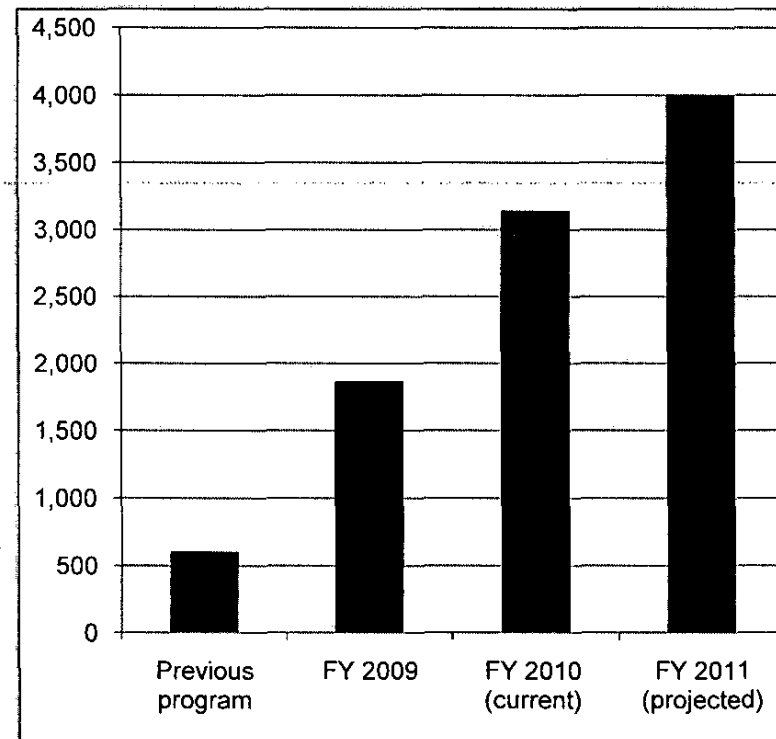
Encumbered:
2008-2009= **\$70 million**
2010= **\$60 million**



Weatherization PROGRAM

Homes Weatherized

- Previous program: **600**
- FY 2009: **1864**
- FY 2010: **3139** (current)
- FY 2011: **4000** (projected based on funding)
- Statewide weatherization providers and housing authorities have now achieved a sustainable capacity.

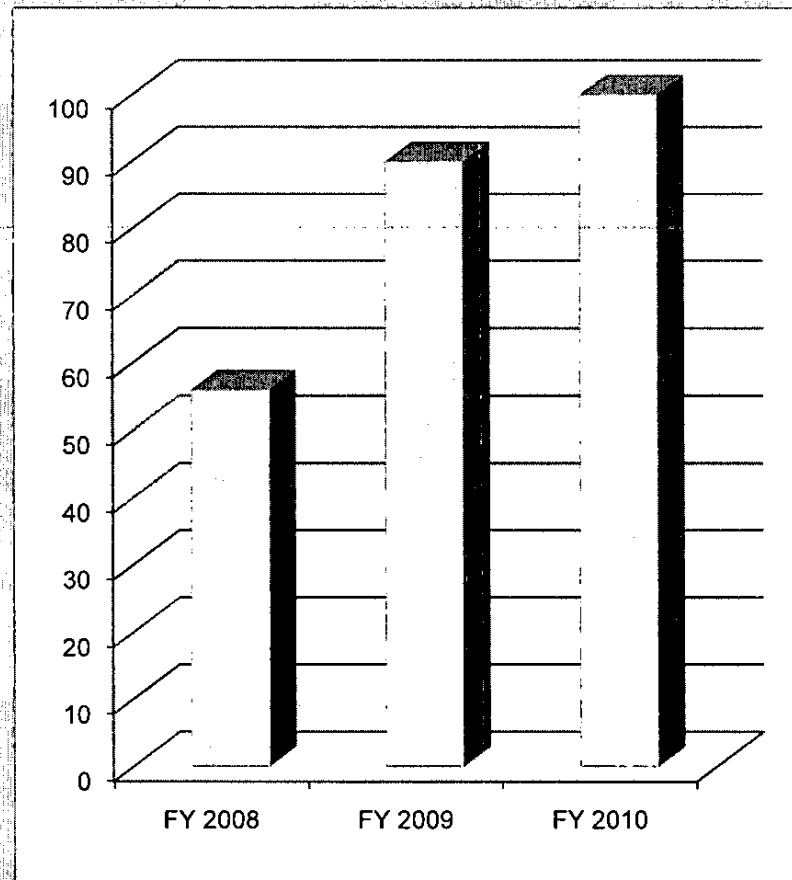


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Weatherization PROGRAM

Communities/Areas Served

- FY 2008: **56**
- FY 2009: **90**
- FY 2010: **100+**



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Home Energy Rebate PROGRAM

\$160 Million

**Funds Fully Encumbered
Expended: \$72.8 million**



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10.12.2010

Home Energy Rebate PROGRAM

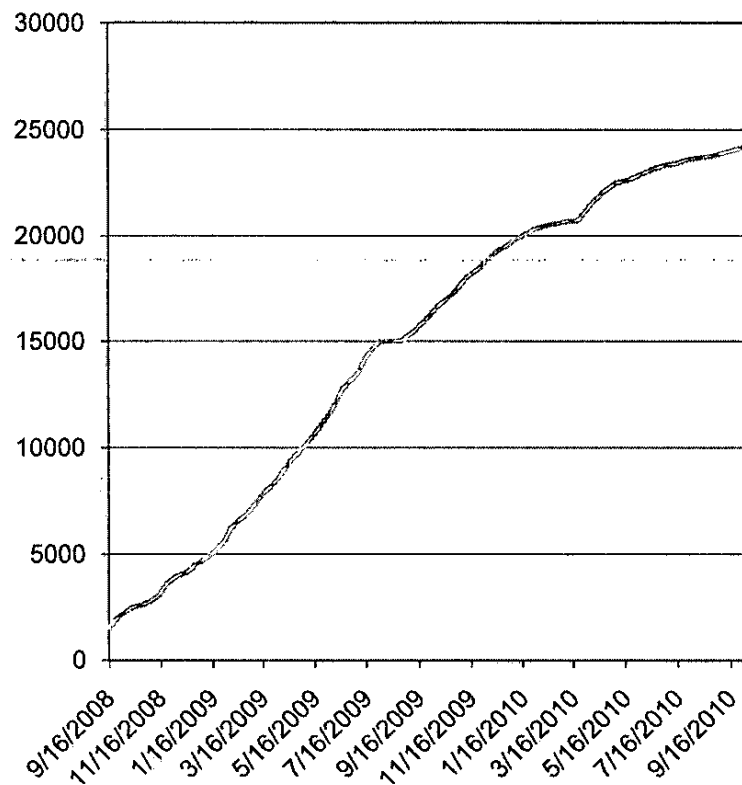
As-Is Ratings Paid : 24,292*

Existing Homes*

- 9,142 rebates paid
- \$6,258 average
- 18 month deadline
- 63.5% participation rate

New 5 Star Plus Homes

- 822 rebates paid



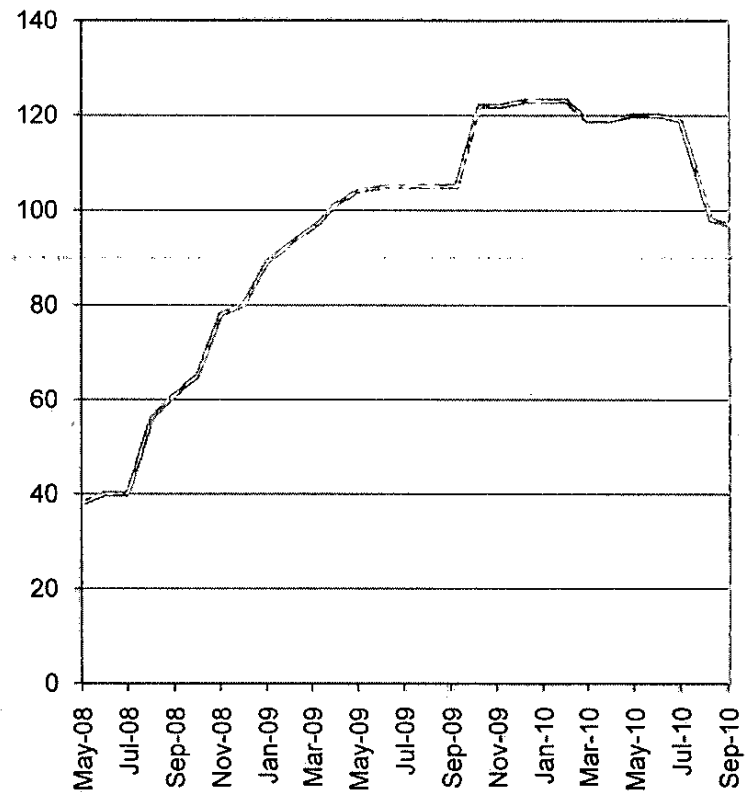
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10.12.2010

Home Energy Rebate PROGRAM

Raters Available

- Raters
 - 38 at program start
 - 123 at peak
 - 97 currently listed
- Roving rater program
- Centralized sign-up list
 - www.akrebate.com or call 1-877-AK-REBATE

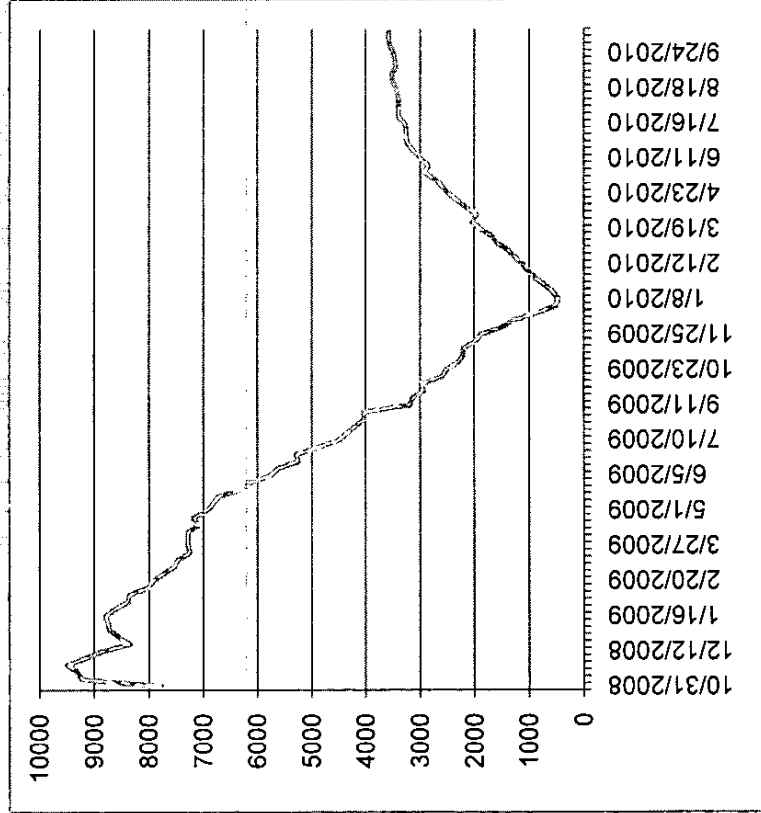


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Home Energy Rebate PROGRAM

Wait List



Statewide: 3,575

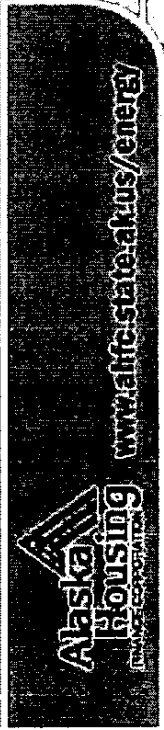
Anchorage: 1,583

Fairbanks: 326

Juneau: 182

Total Ratings Dispatched

Statewide : 30,081



10.15.2010

Home Energy Rebate PROGRAM

Program Snapshot

Approximate Costs of Sampled Homeowners

AHFC Rebate Amount

\$6200 average rebate

Homeowner Paid Costs

\$10,800 average spent

-\$6200 average rebate

=\$4600 homeowner investment

\$1580 annual energy savings

3 year payback



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10.19.2010

Home Energy Rebate PROGRAM

Energy & CO2 Impacts

HOMES	Before	After	Total Saved	Per Home
6998				
Energy Cost	\$38,104,164	\$27,061,010	\$11,043,154	\$1,586 / year
CO2 lbs/year	304,449,069	218,531,869	85,917,199	12,341 lbs / yr
Rating Stars	2+	4		3 steps
BTUS			679 Billion	97 Million

Average energy use reduced 32.58%

Equivalent energy savings: **117,184 barrels of crude oil**
4.9 million gallons of fuel oil
700 gallons of fuel oil per home



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9.1.2010

Home Energy Rebate PROGRAM

Average Savings per Home by Fuel Type

Fuel Type	Average Savings
Electric	748 kwh
Natural Gas	978 ccf
#2 Oil	650 gallons
Propane	84 gallons
Wood	2.2 cords

6998 sampled homes

Projected average energy cost reduced 29%



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9.1.2010

Second Mortgage for Energy Conservation

- 2nd Mortgage up to \$30,000
 - 15 Year Loan at the Taxable Rate
 - Loans Paid Off: **84**
 - Active Loans: **34**



Home Energy Rebate & Weatherization Comparison Snapshot

BEFORE*

1996 - March 2008

AFTER

April 2008 – October 15, 2010

• Ratings	25,557	34,283
• Rebates	n/a	9142
• 5+ Homes	2,345	822
• Weatherized	10,704	5003

14,967 homes now more energy efficient since 2008



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**Programs prior to \$360 million state funding*

Alaska Energy Efficiency Revolving Loan Fund (AEERLF)

“Alaska Sustainable Energy Act” - \$250 million revolving loan fund

- Energy efficiency improvements for
 - Regional Educational Attendance Areas (REAs)
 - University of Alaska
 - State facilities
 - Municipal facilities
- Guaranteed savings from energy efficiency improvements are used to pay off the loan
- Requires Retrofit Energy Assessment for Loan (REAL)

In final development phase



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Retrofit Energy Assessment for Loan (REAL)

Prior to applying for the loan...

- **Initial Project Evaluation**
 - Energy benchmark
- **Energy Audits**
 - Audits by Certified Energy Auditor (CEA) or Certified Energy Manager (CEM) certification through the Association of Energy Engineers (AEE), or an AHFC-approved equivalent.
- **Energy Performance Contracts (EPCs)**
 - Energy Service Companies (ESCOs) pre-qualified by Alaska Housing Finance Corporation (AHFC) and Alaska Department of Transportation and Public Facilities (DOT/PF) may be used.

Retrofits may be managed by qualified Energy Service Companies (ESCOs), or the facility owner (if under \$250,000).



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Retrofit Energy Assessment for Loan (REAL) Process

REAL application/benchmark to AHFC

AHFC reviews application for eligibility

Initial assessment performed by qualified energy auditor (CEA/CEM) to allow for benchmarking and AHFC prioritization of projects

Investment Grade Audit (IGA)

Loan application to AHFC for approval



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Energy Efficiency Revolving Loan (EERL) Process

Loan approved by AHFC

Upgrades accomplished either through Energy Efficiency Performance Contract (EPC) with an Energy Service Company (ESCO), or overseen by facility owner (if less than \$250,000)

Loan repaid according to projected energy savings (term depends on payback of project; less than or equal to 15yrs; interest based on rate in effect at time of application)

Technical assistance available

Long term energy savings



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Two ways to get the work done

Path
1

ESCO does IGA

ESCO manages project, performs work through EPC

Path
2

Certified Energy Auditor or Certified Energy Manager does IGA

Facility owner manages project (if less than \$250,000)



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