

AHFC and Public Facilities Energy Use

House Bill NO. 343

March 13, 2014

AHFC, Energy & Public Facilities

Alaska Senate Bill 220 in 2010



Established \$250 million revolving loan fund for energy efficiency improvements on public facilities

AHFC utilized ARRA funds to begin to assess public facility energy use

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 is used for policy decisions, research, program measurement, studies and reports, and much more



HERS

Home Energy Rating System

Home Energy Rating Certificate



The Home Located At:

*This Street
Palmer, Alaska*

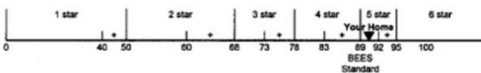
Has Been Energy-Rated As:

★★★★★

Five Star

Overall Efficiency of Home

90.4 points



BEES Compliance

Pass

Amount of CO2 Produced by the Home

27,771 pounds per year

Projected Annual Energy Costs

\$2,539 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

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

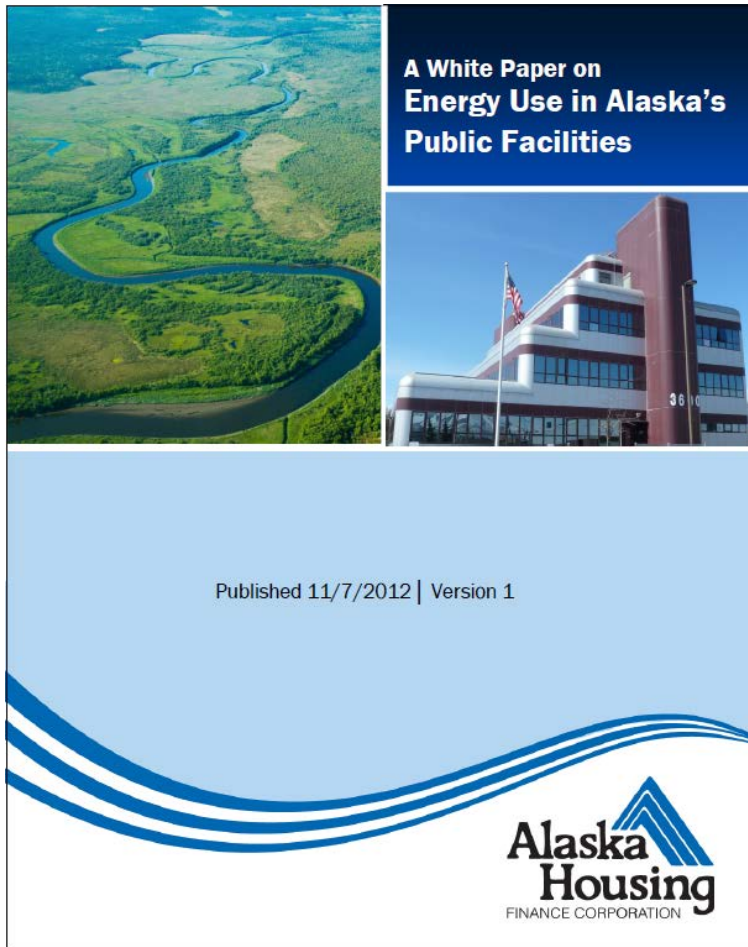
4300 Boniface Parkway | Anchorage, Alaska 99504 | P.O. Box 101020 | Anchorage, Alaska 99510
(907) 458-6100 (Anchorage) or (Toll-Free) 1-800-478-4HEF (24/7) | www.alhfc.org



BEES

Building Energy Efficiency Standard

Assessment Process



Benchmarking more than
1,200 buildings

Identify highest energy use
buildings

Perform Investment Grade
Audits of 327 identified
buildings

Data gathered and analyzed

Report of findings

Energy Audit Results

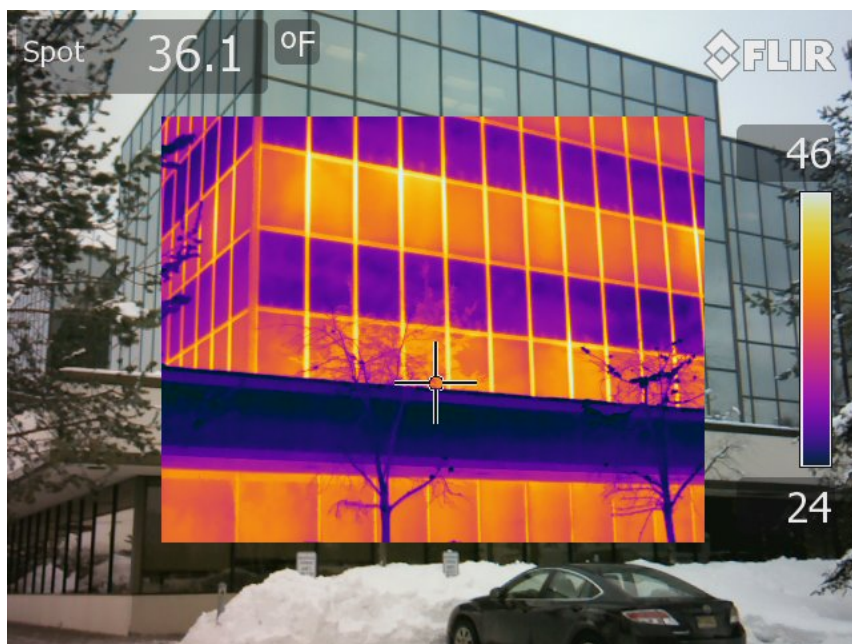


Audits provide basic knowledge not previously known

Significant savings potential, \$14.7m for 327 buildings

Age of building had little correlation to energy use – new doesn't mean efficient

AHFC Energy Improvements



Purchased headquarters in 2011 following 14 year lease

Immediately starting implementing efficiency measures including HVAC, lighting, and roof insulation

Continue to monitor the buildings performance to ensure energy savings are achieved

Overall Energy Audit Recommendations

Appropriately size new buildings

Establish a level of accountability

Meter and track energy use data

Consolidate facility use where possible



Recommendations for Building Design



Consider life-cycle cost of building components and equipment, especially in areas with high energy costs (Codes are just a minimum)

Designers should consider building use, system sizes, controlled ventilation, and lighting to maximize efficiency

Reduce excessive glass and maximize daylight harvesting

Questions

