

2/18/09

ALASKA

ENERGY

EFFICIENCY

PROGRAM



Alaska Energy Efficiency Program & Policy Recommendations

Project managed by:
Cold Climate Housing Research Center

Project funded by:
Alaska Energy Authority
Alaska Housing Finance Corporation

INFORMATION INSIGHTS, INC.





Energy Efficiency

We can do it now!

Efficiency relies on advanced *technology*,
which is becoming more plentiful, rather than
fossil fuels, which are being depleted

Saving energy usually *costs less than buying it*

Pollution and Co2 reduction



The Project

- Literature review: Alaska energy programs (current and past)
- Key informant interviews: Alaska energy programs (expert perspectives)
- Literature review: best practices (US, Canada, other northern counties – Rocky Mountain Institute)



The Project

- Energy efficiency work session (January 16, 2008, about 30 professionals)
- Data collection and cleaning
- Interim recommendations for adoption 2008 legislative session
- Extensive feedback from 20+ energy and policy professionals
- Final recommendations



Where Alaska Ranks

- ACEEE ranks Alaska 41st in Energy Efficiency
 - Utility spending on efficiency and conservation
 - Efficiency standards for utilities
 - Combined heat and power
 - Building codes
 - Transportation policies
 - Appliance standards
 - Tax incentives
 - State lead by example

Best practices – policy mandates

	Policy Description	States
Building energy codes	Require a minimum level of efficiency from new construction of residential and commercial buildings. Build a trigger into the code so that it is frequently updated.	39 states
Appliance standards	Minimum efficiency standards for certain appliances. Federal appliance standards preempt state standard, but states may petition the feds for exemption.	12 states so far
EE Funding	There are a few kinds of efficiency funding including public benefits funds and mandatory utility spending on efficiency	Majority of states spend more than \$0.50/person
EE in State facilities	Building, transportation or other energy standards set for public vehicles, buildings and other purchasing habits.	36 states



Best practices – finance & incentives

	Policy Description	States
Tax incentives	Tax credits, reductions on property or sales tax for purchase of specific equipment, tax deductions, etc.	Many states
PAYS	A third party, or utility, purchases efficient or distributed renewable energy property upfront and customers finance cost with on-bill payments using the energy savings.	Many states
Revolving loan fund	A fund that provides money for a specified purpose, here, energy efficiency. The fund is generally capitalized with dollars that do not need to be repaid. Loan repayment creates funds for additional projects.	AR, CT, ME, MD, MN, MS, OK, AL
Incentives	Fast track permitting, building envelope incentives, allowing agencies to keep money saved from reducing energy bills,	Hawaii has best program



Best practices – utility regulation

	Policy Description	States
Acquisition of cost-effective EE	Using the total resource cost test, utilities acquire all cost-effective energy efficiency	At least 25 states
Align utility incentives equally	Often, utility incentive programs do not align the utility's profits equally with supply and demand resources. Examples of this includes, decoupling, lost revenues, and performance incentives.	At least nine states
Align rate payers with efficiency	Create a rate structure that rewards efficiency, such as a tiered rate system with a lower rate for less consumption. I.e. critical peak pricing and time-of-use pricing	AZ, CA, CT, VT
Systems benefit fund	A non by-passable charge on a electric or gas utility bill that is used placed into a fund to be used for energy efficiency initiatives.	At least 20 states



Best practices – education opportunities

	Policy Description	States
Consumer education	Ongoing consumer education about energy efficiency and/or renewable energy	Many states and utilities
Contractor , architect engineer education	Education for contractors, architects, and engineers to promote energy efficient building techniques.	Green advantage nationwide
School curriculum	Including curriculum in schools that informs students about the value of energy efficiency.	At least eight schools Utility: GRU, BPA, PGE DoE has lesson plans





Recommendations Presented in Nine Categories:

- State Leadership
- Funding Energy Efficiency
- Public Education and Outreach
- Baseline Data
- Existing Residential Buildings
- New Residential Construction
- Existing Commercial Buildings
- New Commercial Construction
- Public Buildings



State Leadership

1. The Governor should articulate an energy efficiency vision for Alaska.
2. The Governor should designate a sub-cabinet for State end-use efficiency programs.



Funding Energy Efficiency

1. The state should fund energy efficiency programs through legislative appropriation.
2. The RCA should implement a System Benefit Charge to support end-use efficiency programs,
3. The state should capitalize an end-use efficiency endowment to support end-use efficiency programs.
4. The state should offer matching grants to local governments interested in creating a local energy plan that incorporates energy efficiency and conservation.

Public Education and Outreach

1. The Legislature should fund a comprehensive public awareness campaign with at least \$1,000,000 per year.





Baseline Data

1. The Alaska Housing Finance Corporation and Alaska Energy Authority should conduct an end-use survey of residential and commercial energy consumers.
2. The Alaska Energy Authority should establish and report an Energy Use Index (EUI) for all public buildings.



Existing Residential Buildings

1. The Legislature should significantly increase funding for Low-Income Weatherization.
2. AHFC should create a certification and training program for energy retrofit and energy efficient new construction.
3. AHFC should subsidize up to 100 percent of costs for home energy audits for households not eligible for low-income weatherization, and offer low-interest loans for energy conservation improvements.
4. The Legislature should fund a pilot Smart Meter program through AHFC/AEA.



New Residential Construction

1. The Legislature should adopt BEES as the new state residential energy efficiency building code.
2. The State Division of Corporations, Businesses, and Professional Licensing should enforce regulations on building codes and contractor licensing to ensure quality and energy efficiency.

Existing Commercial Buildings

1. The AEA should subsidize energy audits for commercial facilities and offer loans for energy efficiency improvements.
2. The RCA should require utilities to implement Pay As You Save loan programs.



New Commercial Construction

1. AEA should contract for a stakeholder process to develop a commercial energy efficiency building code.



Public Buildings

1. The Governor should direct each state agency to reduce energy consumption in its facilities by 20 percent from 2000 levels by 2020.
2. The Board of Regents should direct the university to reduce energy consumption in its facilities by 20 percent from 2000 levels by 2020.
3. The Legislature should fund an energy audit for every school in the state.
4. The state should fund AEA to revive the Institutional Conservation Program to offer public K-12 schools energy conservation matching grants.
5. The Alaska Energy Authority should establish a low-interest loan program for public facilities to make energy efficiency improvements, with payments geared to projected savings.





Where are we today?

Legislative funding

- Weatherization - \$200 million
- Rebate - \$160 million
- RE - \$100 million
- Market driven conservation in rural AK
- Broad awareness of energy issues
- Supply side solutions dominate

Stimulus Bill has been signed



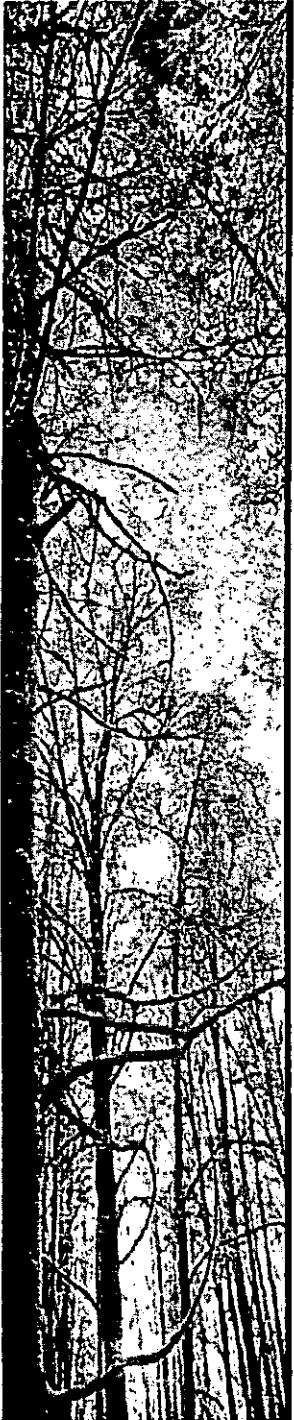
Current Recommendations

- Adopt Statewide Building Code with energy conservation code
- Adopt Public Buildings Energy Standard and retrofit programs, including schools and UA
- Create R&D fund for renewables
- Sustainable Northern Communities

Statewide Building Code

- Number One Recommendation of Experts Panel
- Needed by AHFC
- Supported by ASHBA
- Required by Stimulus bill for SEP grants





SEP Grant Requirements

Governor letter to Sec. of Energy:

- Utility Consumer Energy Efficiency Policy
- Adopt Residential & Commercial Energy Conservation Codes
- Prioritize SEP grants to EE and RE programs



Sustainable Northern Communities

A Program to:

- Use current oil wealth to transition to an economy based on renewable energy
- Use “Integrated Design Process” to develop plan for each community
- “Whole Village Retrofit” – plan energy efficiency and supply together
- Include food production as part of energy plan (green houses to use “waste heat”)



Last slide

Cold Climate Housing Research Center

<http://www.cchrc.org/>

Alaska Housing Finance Corporation

<http://www.ahfc.state.ak.us/home/index.cfm>

Alaska Energy Authority

<http://www.akenergy.org>

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