



Alaska Energy Authority
Renewable Energy and Energy Efficiency in Southeast
Southeast Conference
Feb. 27, 2013



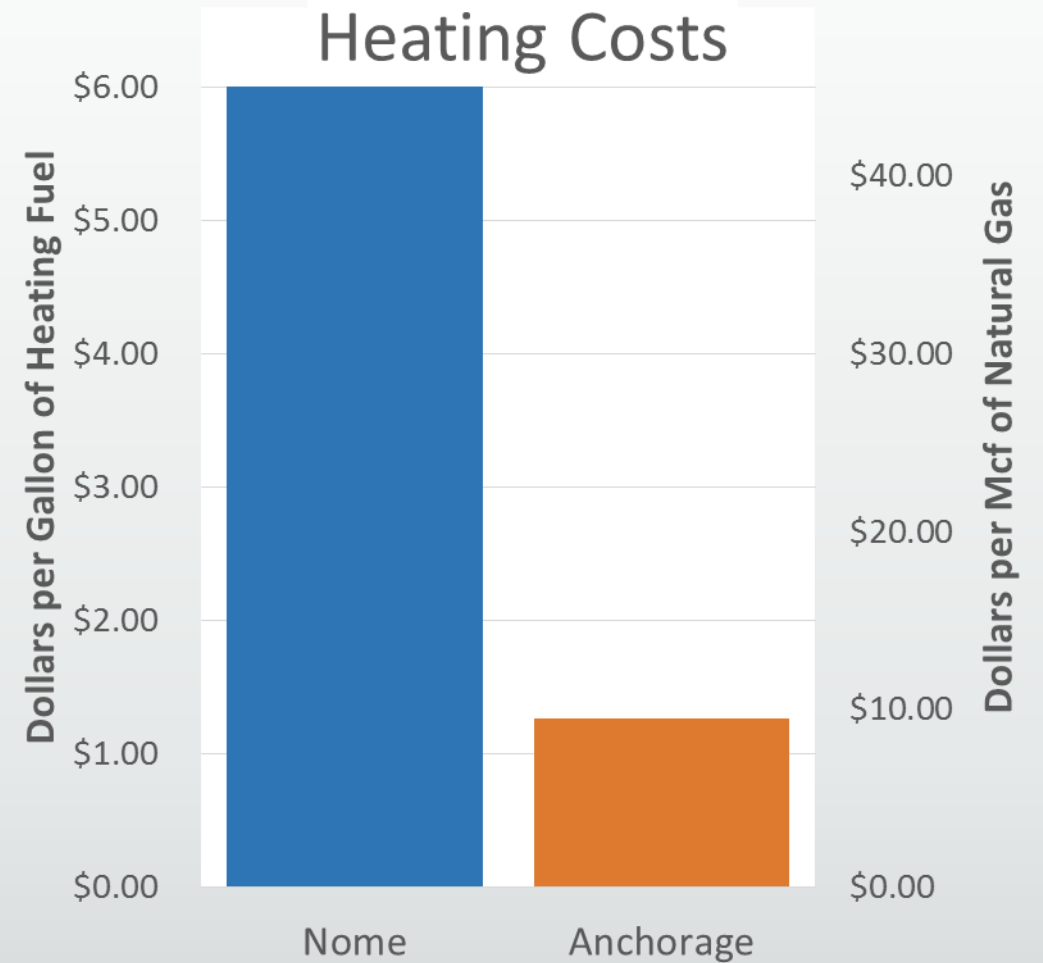
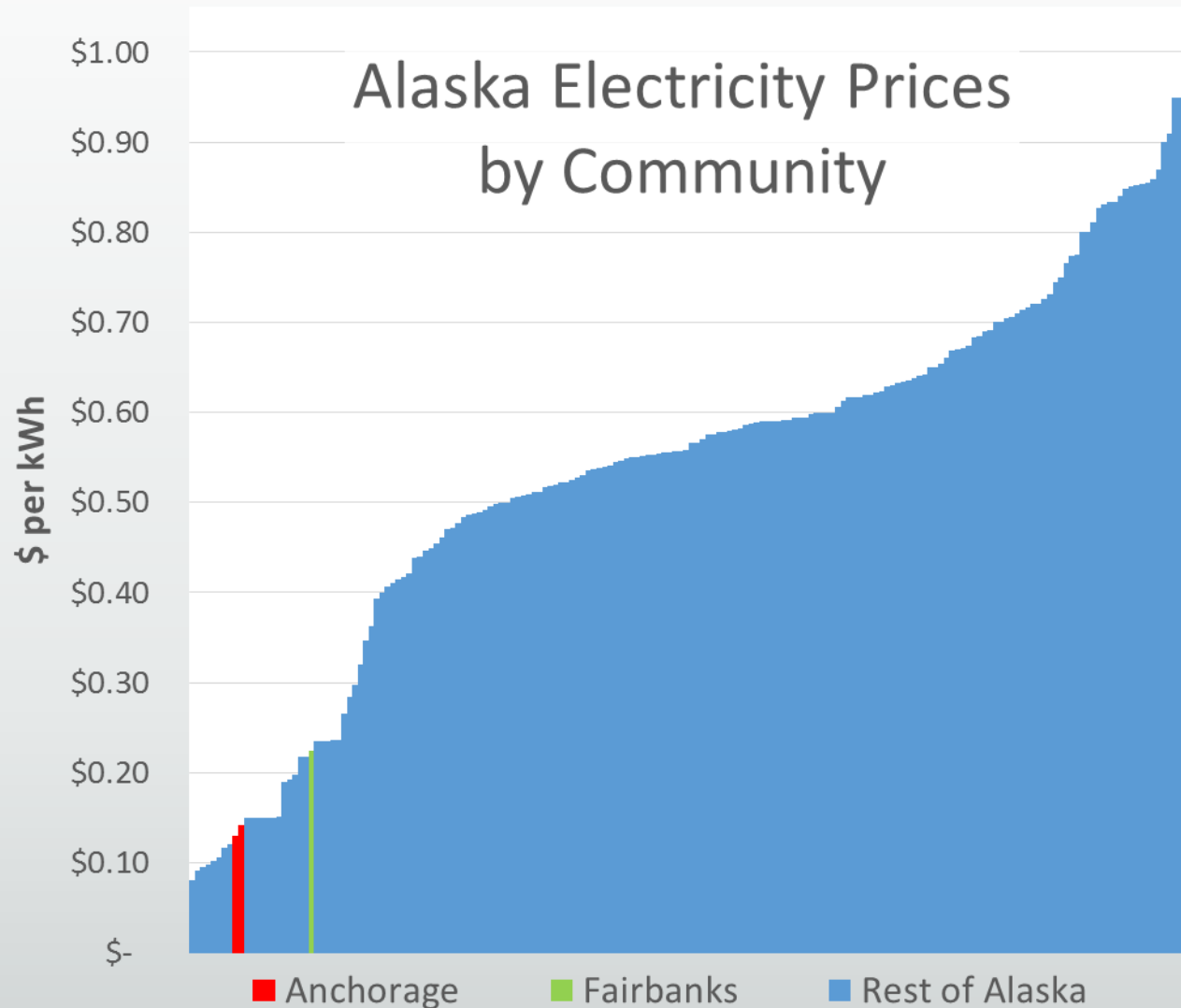
Reducing the Cost of Energy



- Energy Planning and Policy
- Technical and Community Assistance
- Investing in Alaska's Energy Infrastructure
- Diversifying Alaska's Energy Portfolio



Energy Costs Vary



Efficiency and Conservation



Efficiency in Southeast Overview

- State Goal: improve efficiency 15% by 2020
- AEA's focus is on commercial buildings, rural public buildings, industrial facilities and electrical efficiency
- Statewide outreach and education
- Support for multi-stakeholder group, Alaska Energy Efficiency Partnership AKEnergyEfficiency.org
- Coordination between State agencies
- Alaska Commercial Energy Audit Program
- Village Energy Efficiency Program



Efficiency and Conservation



Recent Activity in Southeast

- 13 Communities ARRA funded, \$759,800
- EECBG Allocations based on population
 - Coffman Cove
 - Craig
 - Gustavus
 - Hoonah
 - Hydaburg
 - Klawock
 - Pelican
 - Petersburg
 - Saxman
 - Skagway
 - Tenakee Springs
 - Thorne Bay
 - Wrangell
- Commercial Energy Audits 2010-2011
 - Angoon
 - Gustavus
 - Haines
 - Hoonah
 - Hydaburg
 - Juneau
 - Kake
 - Petersburg
 - Sitka
 - Wrangell
 - Yakutat



Efficiency and Conservation

Efficiency Impacts

- VEEP & EECBG
- 109 Communities
- >300 buildings touched
- Average building energy savings found: ~33%
- Will save 2.8M diesel equivalent gallons in 10 years
- Average efficiency measure has immediate return of \$0.33 for every dollar invested
- Local job creation
- Greater efficiency awareness in communities



*Emmonak City Hall boiler before
and after efficiency improvements*

Biomass Energy

Alaska Wood Energy Development Task Group

- Coalition of 18 organizations
- Exploring opportunities to increase utilization of wood for heating projects
- Annually seeks statements of interest for feasibility
- SE communities completed pre-feasibility studies:
 - Craig
 - Thorne Bay
 - Klawock
 - Coffman Cove
 - Hoonah
 - Sitka
 - Haines
 - Klukwan
 - Ketchikan
 - Kake
- Operational Systems:
 - Craig
 - Thorne Bay
 - Coffman Cove
 - Haines
 - Ketchikan



Delta Heat Exchanger and Wood Boiler



Biomass Energy

2013 Pre-Feasibility Studies

- Craig
- Kake
- Hollis
- Thorne Bay
- Whale Pass
- Hoonah



Biomass heat system

Biomass Energy

Thorne Bay School

- Prototype cordwood system designed specifically for rural Alaska with funding through Renewable Energy Fund
- Boiler and equipment mounted in a container
- Minimizes construction and cost

Southeast Alaska Wood-To-Energy Work Group

- Sponsored by U.S. Forest Service
- Roadmap to achieve biomass



Thorne Bay biomass under construction



Haines pellet silo

Renewable Energy Fund in Southeast

- Round 6 Recommendations provided to Legislature
- 11 total SE projects recommended
- In top \$25M tier, SE projects total \$13.7M, 54% of total!
 - Indian River (Construction)
 - Gartina Falls (Construction)
 - Blue Lake Expansion (Construction)
- Next tier: 3 more projects
 - Wood Heat Feasibility Study and Conceptual Design for Kake (Feasibility)
 - Hydaburg Schools Wood Fired Boiler Project (Design)
 - Haines Borough Pellet Heating Project (Design & Construction)
- All 5 years: Southeast has received largest portion of funding
 - \$38.5M, 20% of total allocations.
- Round 7 expected to start in July. Start planning!

AKEnergyAuthority.org

