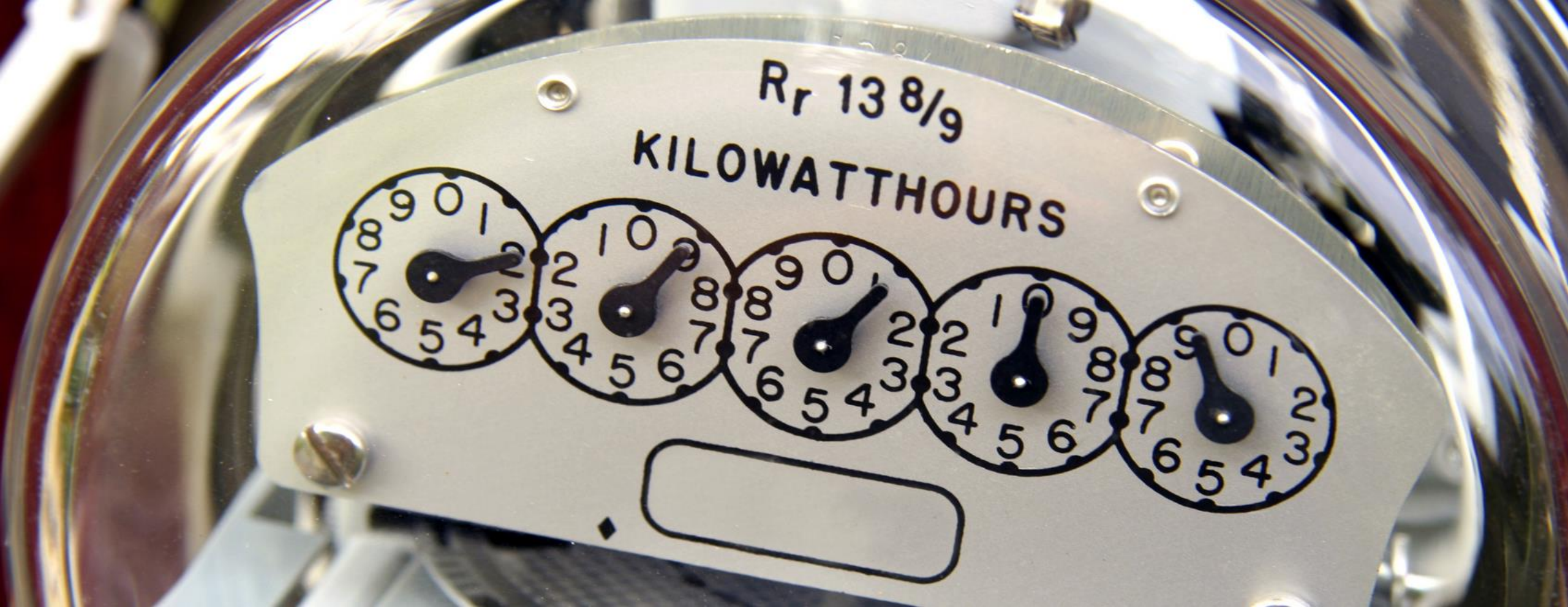


Alaska Energy Authority Policy Overview

House Energy April 3, 2013

ALASKA ENERGY AUTHORITY

Reducing the Cost of Energy

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

ALASKA ENERGY AUTHORITY

Pathway from Policy to Projects

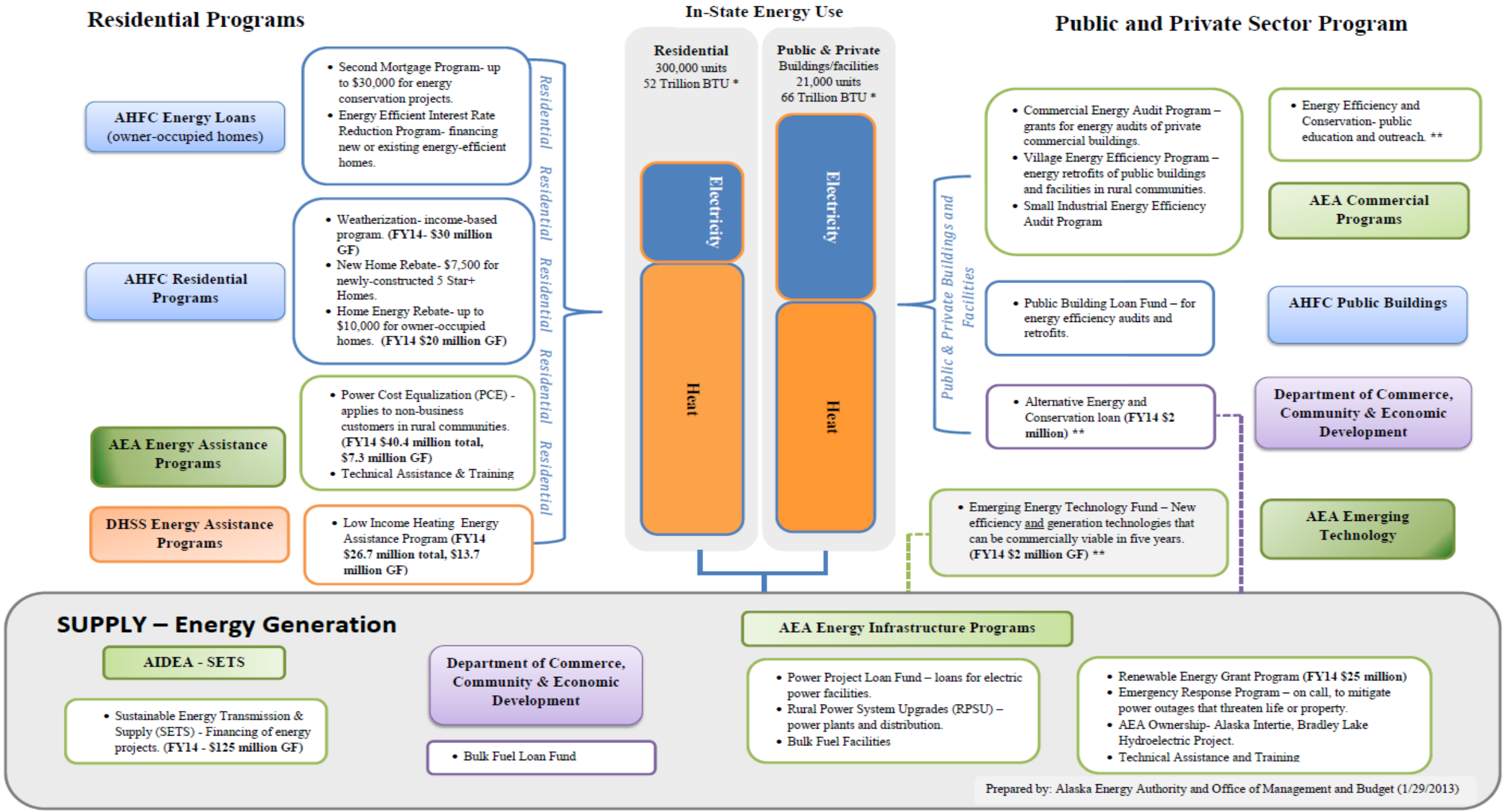
- Administration
- Alaska Legislature
- AEA Policy Development

- Board of Directors
- Regional Planning
- In-House Project Evaluation

- Loans and Direct Grants
- Project Management
- Partnerships (Private, AIDEA)

ALASKA ENERGY AUTHORITY

State of Alaska Energy Programs: Serving the needs of Alaska's residential and commercial energy users



** Source: Energy Information Authority*

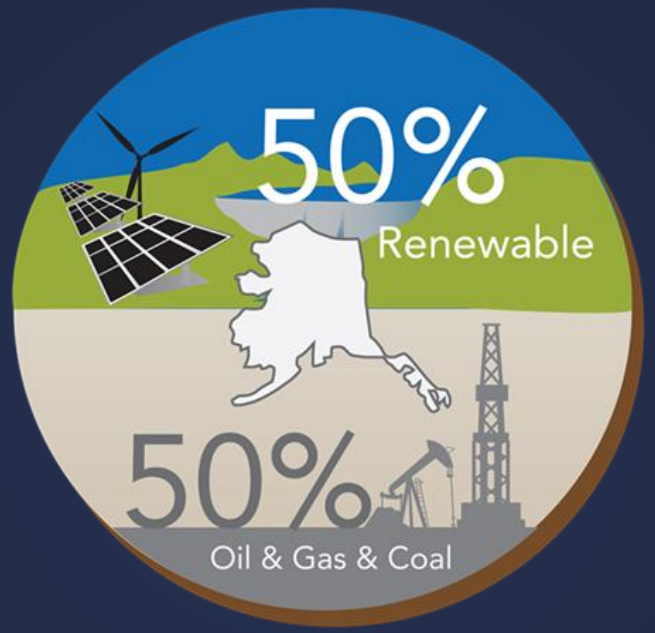
*** Note that some programs do not fall within specific categories - Public outreach and education serves both the commercial and residential markets and Emerging Technology and the Alternative Energy and Conservation loan serve both generation and efficiency*

Energy Policy Development and Coordination

- Serve as lead on Alaska's energy policy development
- Monitor State energy goals
- Coordinate multi-agency efforts
- Deputy Director for Statewide Energy Policy Development
- In-House Evaluation Team
  - Sara Fisher-Goad- management team lead
  - Gene Therriault- policy
  - Nick Szymoniak- economics
  - Kirk Warren- engineering

ALASKA ENERGY AUTHORITY


Renewable Energy Fund
Biomass or Biofuels
Hydro
Transmission
Wind
Heat Recovery
Systems Upgrades
Rural Power System Upgrade
Bulk Fuel Upgrade
Energy Efficiency
Commercial Energy Audit
Seafood Processing Plant Audit
Whole Village Refort
EECBG Grants
VEEP Grants
0 50 100 200 Miles
Alaska Energy Authority
Projects Under Construction
Summer 2012
ID | Renewable Energy Fund Projects
22 Cordova Heat Recovery Construction
23 North Prince of Wales Island Intertie Project
58 Chuniisax Cr Hydroelectric Construction
68 Anchorage Landfill Gas Electricity Construction
469 Akutan Hydroelectric System Repair and Upgrade
486 Pilot Point Wind Power & Heat
503 St. Paul Wind Diesel Project
616 EVA Creek Wind Turbine Purchase
620 Whitman Lake Hydroelectric Project
636 Thorne Bay School Wood Fired Boiler
653 Terror Lake Hydroelectric Project
672 Snettisham Transmission Ln Avalanche Mitigation
681 Lake & Peninsula Borough Wood Boilers
687 Hoonah Heat Recovery Project
688 Pelican Hydroelectric Upgrade Project
803 Pillar Mtn High Penetration Wind Project
836 Packer's Creek Hydroelectric Project
104, 629 Reynolds Creek Hydroelectric Project
85, 518 High Penetration Wind-Battery-Diesel Hybrid
Arctic Slope Regional Corp
N.A.N.A. Regional Corp
Bering Straits Native Corp
Doyon Ltd
Cook Inlet Region Inc
Ahtna Inc
Calista Corp
Chugach Alaska Corp
Sealaska Corp
Bristol Bay Native Corp
Aleut Corp
Koniag Inc
Barrow
Wainwright
Atqasuk
Nuiqsut
Point Hope
Kivalina
Anaktuvuk Pass
Kotzebue
Kiana
Ambler
Kobuk
Noorvik
Shungnak
Selawik
Deering
Buckland
Shishmaref
Bettles
Fort Yukon
Beaver
Hughes
Teller
White Mountain
Koyuk
Koyukuk
Nome
Nulato
Ruby
Galena
Elim
Kaltag
Shaktoolik
Tanana
Fairbanks
North Pole
Nenana
Anderson
Delta Junction
Saint Michael
Emmonak
Alakanuk
Kotlik
Nunam Iqua
Takotna
Nikolai
McGrath
Shageluk
Scammon Bay
Holy Cross
Hooper Bay
Pilot Station
Saint Mary's
Upper Kalskag
Lower Kalskag
Akiachak
Akiak
Newtok
Mekoryuk
Napaskiak
Kwethluk
Napakiak
Chefornak
Kipnuk
Houston
Palmer
Valdez
Anchorage
Cordova
Kenai
Soldotna
Seward
Kachemak
Homer
Seldovia
Quinhagak
Nondalton
Newhalen
Kokhanok
Aleknagik
Goodnews Bay
Dillingham
Togiak
Clark's Point
Manokotak
King Salmon
Saint Paul
Saint George
Egegik
Ouzinkie
Port Lions
Kodiak
Pilot Point
Larsen Bay
Port Heiden
Chignik
Cold Bay
False Pass
King Cove
Sand Point
Unalaska
Akutan
Yakutat
Skagway
Haines
Juneau
Gustavus
Hoonah
Pelican
Tenakee Springs
Sitka
Petersburg
Wrangell
Coffman Cove
Thorne Bay
Klawock
Ketchikan
Saxman
Craig
Hydaburg
Adak
Atka
ALASKA ENERGY AUTHORITY



Renewable and Emerging Energy

Renewable Energy Fund

- State Goal: 50% renewable electricity by 2025
- HB 152 (2008) authorized AEA to manage program, reauthorized in 2012
- Provides consistent vetting mechanism for individual capital projects
- By 2016, 12.3 million gallons of diesel and natural gas equivalent will be displaced annually. Results: $45 million in annual savings

Emerging Energy Technology Fund

- SB 220 (2010) created fund
- Leveraged Federal funds
- Can provide consistent vetting mechanism for emerging energy technologies (renewable, fossil fuels, efficiencies)
- Not a research fund, projects must be commercially viable within 5 years

ALASKA ENERGY AUTHORITY

Improve Energy Efficiency 15 % by 2020

Energy Efficiency and Conservation

- 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
- $1,534,062 and 282,938 diesel equivalent gallons in projected savings
- Average immediate savings of implemented efficiency measures: $0.29 cents/ $1 invested, 300% ROI after 10 years

ALASKA ENERGY AUTHORITY

Rural Energy Infrastructure

St. George

Assessing Community Needs

- Assessment of Community Power System
- Fuel Delivery System
- Are lower-cost energy sources available?
  - Renewable energy
  - Fossil fuels (coal, natural gas, etc.?)
  - Transmission
- Community capacity to maintain the infrastructure
- Is there potential for economic development?

ALASKA ENERGY AUTHORITY

Supporting Regional Solutions

St. Mary's

Regional Energy Planning

- No one energy plan for Alaska
- Energy Pathways led to regional planning
- Strategy to address unique challenges while capitalizing on regional resources
- Locally driven and community-vetted blueprint for sustainability
- Objective to provide specific, actionable recommendations
- Includes electric, heat and transportation energy
- Previous Plans: Railbelt Integrated Resources Plan and Southeast Integrated Resources Plan

ALASKA ENERGY AUTHORITY

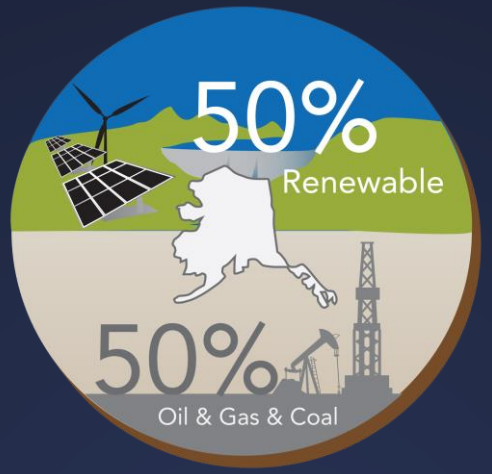
ALASKA ENERGY AUTHORITY

Current Regional Plan Contracts

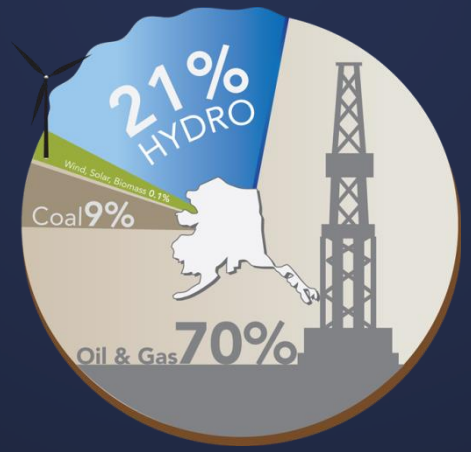
Regional Planning Group

- **Ahtna Region** (Copper Valley Development Association)
- **Aleut Region** (Southwest Alaska Municipal Conference (SWAMC))
- **Bering Straits Region** (Bering Straits Development Council)
- **Bristol Bay Region** (SWAMC)
- **Calista Region** (Nuvista Light and Electric Cooperative)
- **NANA Region** (Northwest Arctic Borough Economic Development Commission)
- **Doyon Region** (Direct grant to Tanana Chiefs Conference from the Denali Commission)
- Working with Chugach, Kodiak and Arctic Slope Regions

ALASKA ENERGY AUTHORITY



State Energy Goal



Alaska's Energy Picture

Why Susitna-Watana Hydro

- Serves ~80% of state's population
- 1,000 jobs during peak construction
- Stable electricity rates for 100+ years
- Long-term diversification
- Clean, reliable energy source
- Promotes integration of variable power sources

ALASKA ENERGY AUTHORITY

Interior Energy Plan

- Opportunity to provide Alaskans with low-cost North Slope natural gas and propane
- Governor's finance package acts as a catalyst, bringing together LNG and propane customers with the private entities that will construct and operate the system
- AIDEA is investigating project feasibility and will only utilize their authorized finance tools if the project makes economic sense
- AIDEA will take an equity stake in project but will not outright build or operate the LNG plant or distribution system
- Governor's finance package is targeted at funding the initial capacity with future expansion funded by private/community investment

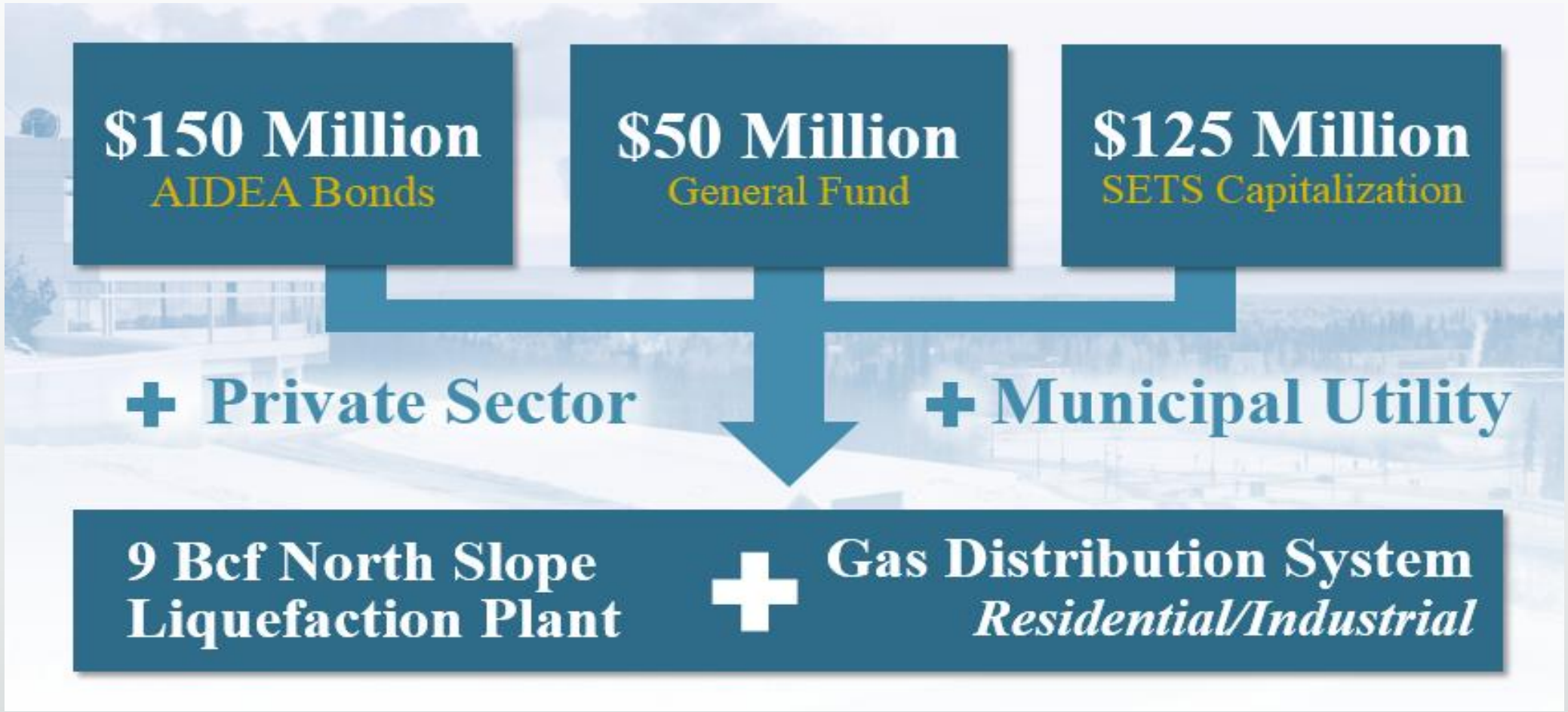
ALASKA ENERGY AUTHORITY

Interior Energy Plan: Project Goals

- Provide lowest-cost energy to Interior Alaska consumers as soon as possible
- Get gas first to the Interior while assuring long-term access to gas and propane from liquefaction plant for all Alaskans
- Utilize private sector mechanisms as much as possible

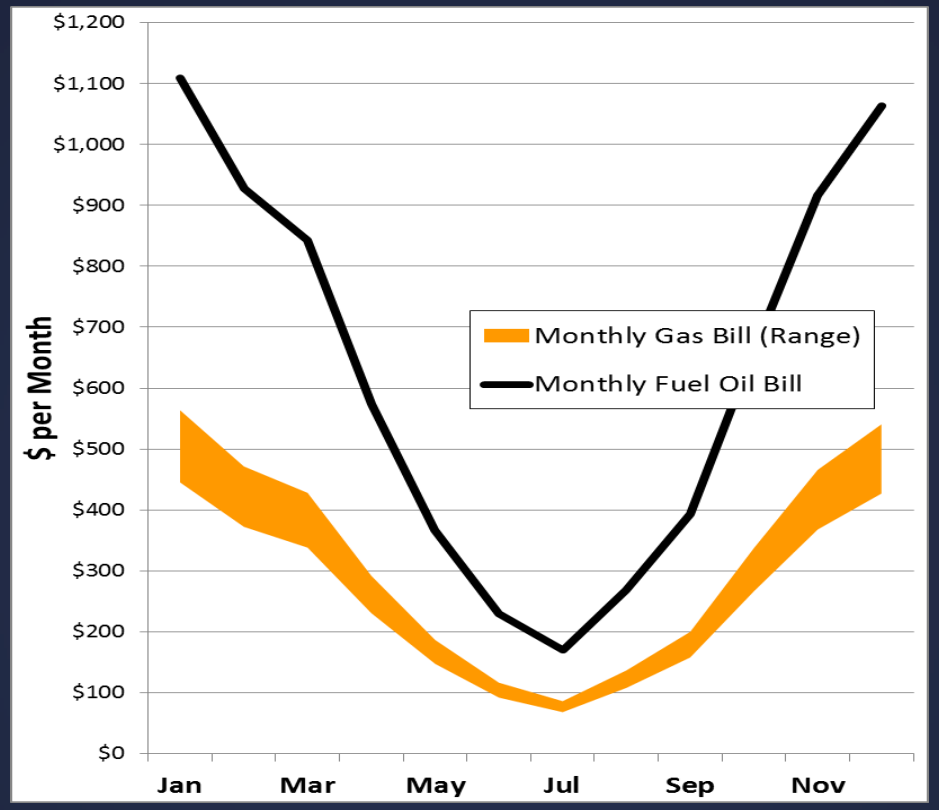
ALASKA ENERGY AUTHORITY

Governor's Finance Package



ALASKA ENERGY AUTHORITY

Household Heating Savings



Typical Home Heating Savings

- $2,900 - $3,750 annually
- 43% - 55% reduction in cost

Key Assumptions

- Typical Interior Alaska household will use 225 Mcf of gas per year (equivalent to 1,700 gallons of fuel oil)
- Does not account for expected improvement in heating efficiency with natural gas

ALASKA ENERGY AUTHORITY

Energy Policy Issues

- Developing State Resources on State Lands
- Can the State facilitate access to resources?
- Southeast Alaska Power Agency Call for Power
  - Looking for new sources of power
  - Allows all potential providers to participate in the discussion
  - AEA letter of support
- Open Access to Alaska Intertie
  - Alaska Intertie Agreement amended and restated Nov. 18, 2011
  - All potential users shall be provided access under common terms and conditions
  - Railbelt utilities to provide open access methodology July 1, 2013
- Unified Railbelt Transmission System

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AKEnergyAuthority.org