

Alaska Energy Authority Overview

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US Department of Energy

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Reducing the cost of energy in Alaska

Reducing energy costs through:

- Regional Energy Planning and Energy Policy Development
- Technical & Financial Assistance
- Energy Efficiency & Conservation Programs
- Energy Infrastructure Projects

Alaska Energy Authority

Projects Under Construction

Summer 2012

Renewable Energy Fund

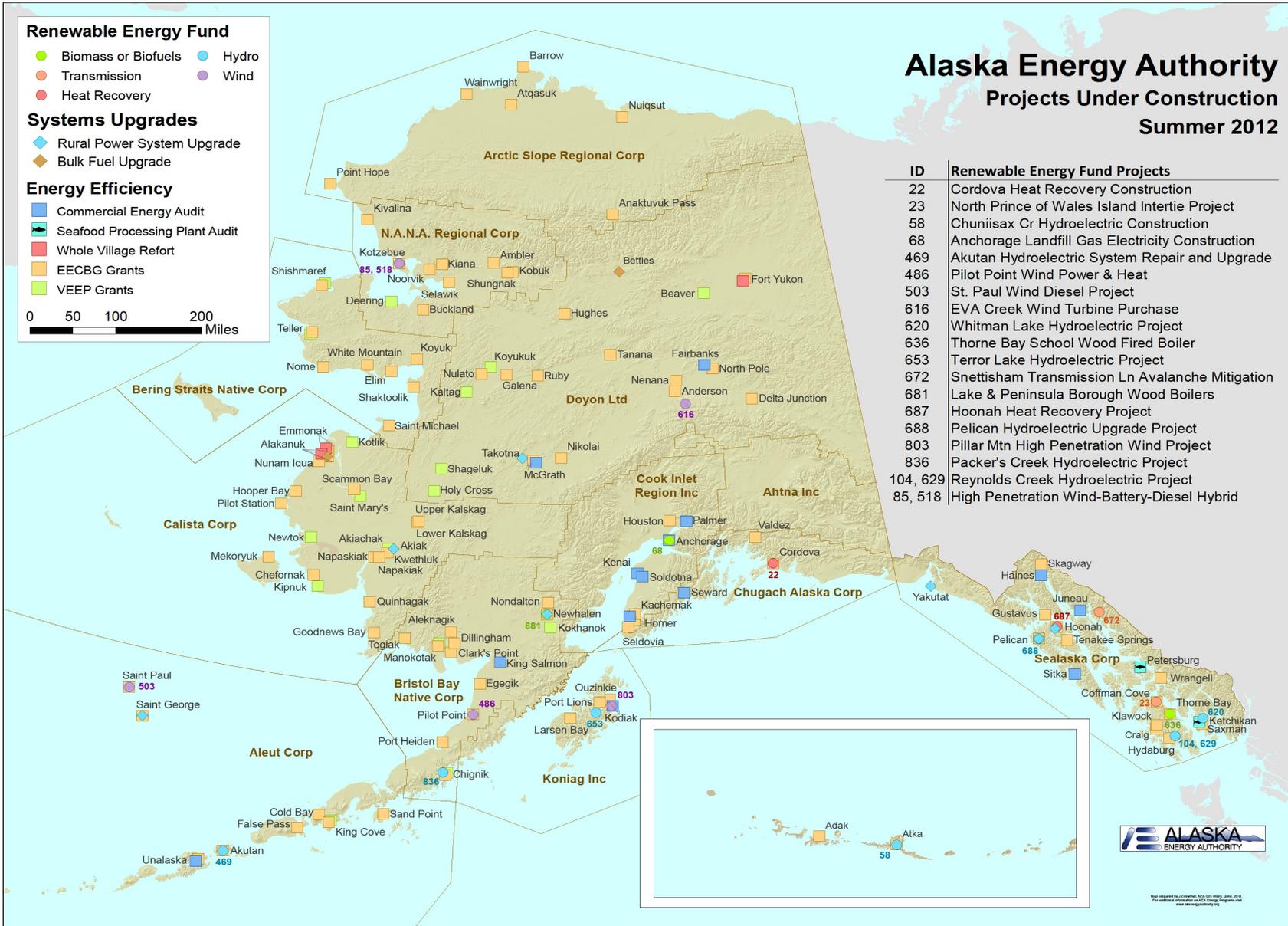
- Biomass or Biofuels
- Hydro
- Transmission
- Wind
- Heat Recovery

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



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



Map prepared by J. Christian, 02/05/2010, ver. 011
 100% updated: www.alaskaenergyauthority.com

Regional Planning

- Objective:
 - Strong public involvement
 - Specific actionable recommendations
 - Budget, costs, savings, timeline for implementation
- Elements:
 - End use efficiency
 - Power generation and transmission
 - Fossil, renewables, integration
 - Heating
- Previous Plans
 - Railbelt Integrated Resources Plan (IRP)
 - Southeast IRP

Project Financing

- Power Project Fund
 - Loans to upgrade or develop electric power facilities
 - Up to \$5 million
 - Low interest rates
 - \$ 42 million in fund (about ½ in application process)
- Bulk Fuel Revolving Loan Fund
 - Loan cost loans to purchase Bulk Fuel
 - \$ 750,000 per community
 - Municipalities with populations less than 2000
 - Transfer to DCRA January 1, 2013

Infrastructure Technical Assistance

- Technical Assistance -
 - Project Development and assistance with funding opportunities
 - Assist communities in utilizing existing AEA programs
 - Intent is to increase concept to “project ready” status
- Technical Assistance – aka “Circuit Rider”
 - Assists eligible communities improve efficiency, safety and reliability of power systems
 - Reduce the risk and severity of emergency conditions
 - Provides: training, consultation on-site & remote monitoring
- Emergency Response
 - On-call to minimize imminent threat to life or property
 - On an As-Needed basis
 - Coordinate with agencies to resolve generation and distribution emergencies throughout Alaska

Efficiency and Conservation

Goal: Up 15% by 2020

- Village End-use Efficiency Program
- Commercial Audit Program
- Industrial Audit Program
- Working with AHFC on 15% goal
- EE & Conservation Partnership
www.akenergyefficiency.org
– Partnership of 20+ organizations

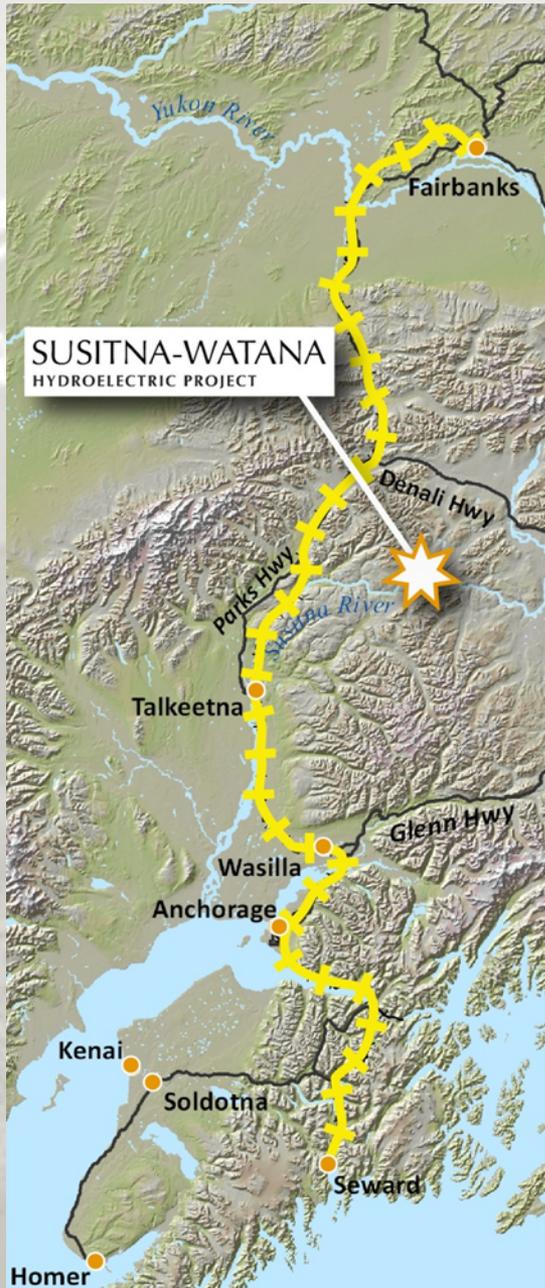


Energy Infrastructure Projects

- Large Hydro
- Power Plants
- Bulk Fuel Tank Farms
- Renewables
- Interties



Project Overview



Size: ~700-foot high	Optimized Height: 750 feet
Elevation level: 2000 feet above sea level	Optimized elevation level: 2050 feet above sea level
Reservoir: 39-miles long, 2-miles wide (at widest)	Reservoir: ~41-miles long
Supplies: 50% Railbelt electrical demand	
Capacity: 600 MW installed	
Annual Average Energy: 2,500,000 MWh	Optimized Annual Energy: 2,800,000 MWh
Project life: 100+ years providing long-term, stable rates	

Rural Energy Assistance

- Bulk Fuel and Rural Power System Upgrade Programs
 - Completed \$304 million in Rural Bulk Fuel and Rural Power System Upgrade projects since 2000, in partnership with the Denali Commission.
 - 13 Projects under construction in next year
 - Technical Assistance - 53 communities in FY12
 - Training – Power plant operator, Advanced power plant, Bulk Fuel, Electric Utility Manager, PCE

Renewable Energy Fund Status

(as of August 2, 2012)

Rounds I – V Grant and Funding Summary

	Round I	Round II	Round III	Round IV	Round V	Totals
Applications Received	112	118	123	108	97	558
Projects Funded	79 ¹	30	25	74	19	227
Grants in Place	73	29	19	57	1	179
Grants Completed ²	30	5	0	0	0	35
Grants Cancelled	6	1	4	0	0	11
Amount Requested (\$M)	\$ 453.8	\$ 293.4	\$ 223.5	\$ 123.1	\$ 132.9	\$ 1,226.7
AEA Recommended (\$M)	\$ 100.0	\$ 36.8	\$ 65.8	\$ 36.6	\$ 43.2	\$ 282.4
Appropriated (\$M)	\$ 100.0	\$ 25.0	\$ 25.0	\$ 26.6	\$ 25.9	\$ 202.5
Cash Disbursed (\$M)	\$ 61.5	\$ 17.9	\$ 8.4	\$ 5.3	\$ 0	\$ 93.1
Match Provided (\$M) ³	\$ 20.7	\$ 22.6	\$ 10.5	\$ 34.6	\$ 7.8	\$ 96.2
Contributions from other sources (\$M) ³	\$ 9.2	\$ 1.6	\$ 0.8	\$ 14.5	\$ 0	\$ 26.1
Available for reallocation (\$M)	\$ 0	\$ 0	\$ 0.2	\$ 0	\$ 0	\$ 0.2

Savings you can realize TODAY

1. Assess the situation: get an audit
2. Energy efficient lighting: it looks good AND it'll save money
3. Don't get burned by high water heating costs: 120° is all you need
4. Managed home heating is a smart way to save
5. Think about tomorrow today: build and renovate with long term operating costs in mind

