



SUSITNA-WATANA HYDRO

Clean, reliable energy for the next 100 years.

Susitna-WatanaHydro.org



CESA Spring
Membership Meeting
June 4, 2013

Alaska Energy Authority



Mission: Reduce the Cost of Energy in Alaska

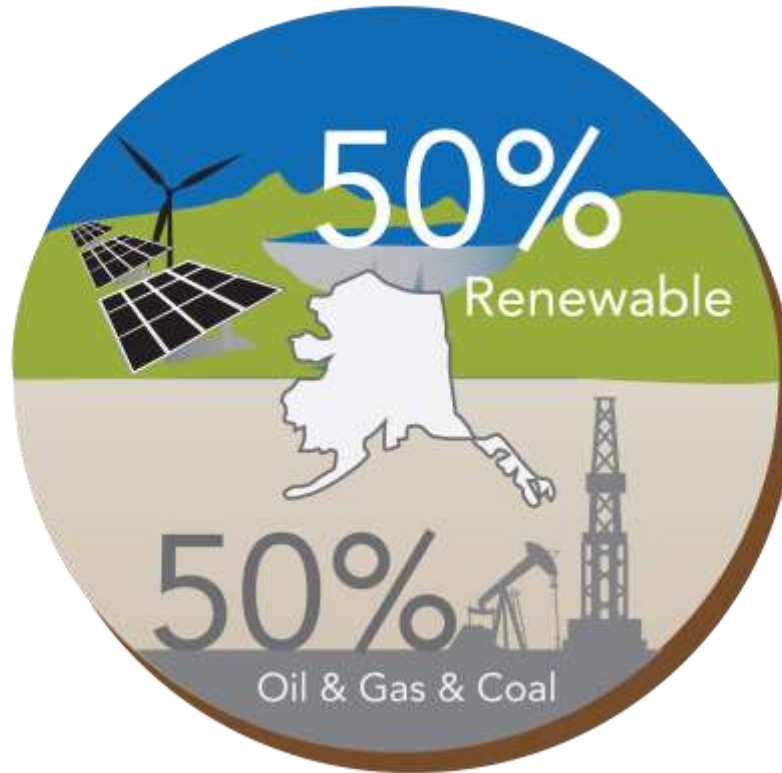
- Investing in Alaska's energy infrastructure
- Diversifying Alaska's energy portfolio
- Energy Planning and Policy
- Training and Technical Assistance

Alaska's Energy Challenges

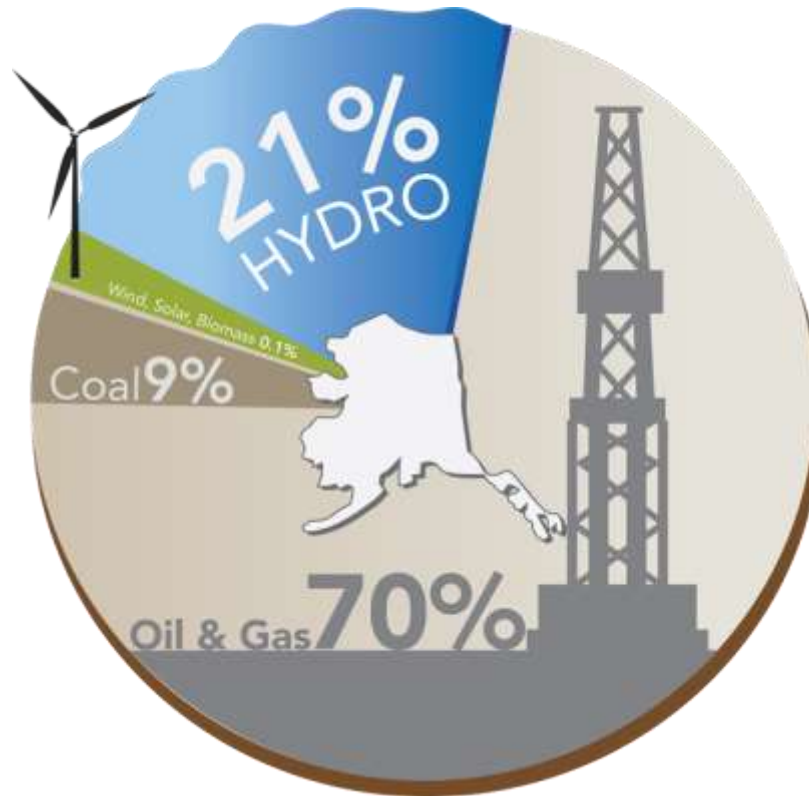
- Varied energy costs and resources by region
- Declining oil production / highly volatile fossil fuel costs
- Aging facilities
- Dispersed communities, no central grid
- Short and long-term solutions necessary



2025 Renewable Energy Goal



Alaska: Electricity Sources



Renewable Electrical Power

Hydropower

all others 10%



90%



Susitna Hydro: History



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



Project Highlights

- Susitna-River Mile 184
- 87 River Miles from Talkeetna
- 22-32 River Miles upstream from Devils Canyon
- ~50 percent of Railbelt's Energy Demand

Project Highlights

Location:

River mile 184, above Devils Canyon

Size:

735-foot high dam

Cost:

\$5.19 billion

Reservoir:

About 42-miles long, average width of one mile

Estimated Supply:

Roughly 50 percent of Railbelt electrical demand

Installed Capacity:

600 MW

Annual Energy

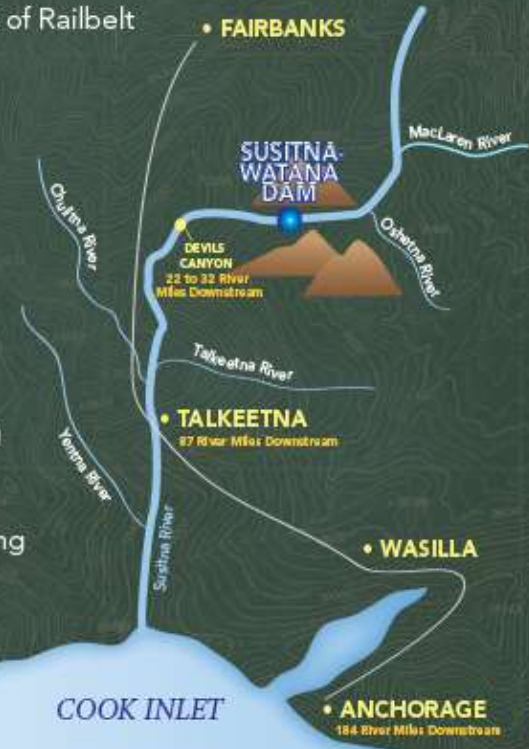
2,800,000 MWh

Licensing:

Federal Energy Regulatory Commission (FERC)

Project Life:

100+ years, providing long-term, stable rates



Project Timeline

TIMELINE



2012 Accomplishments

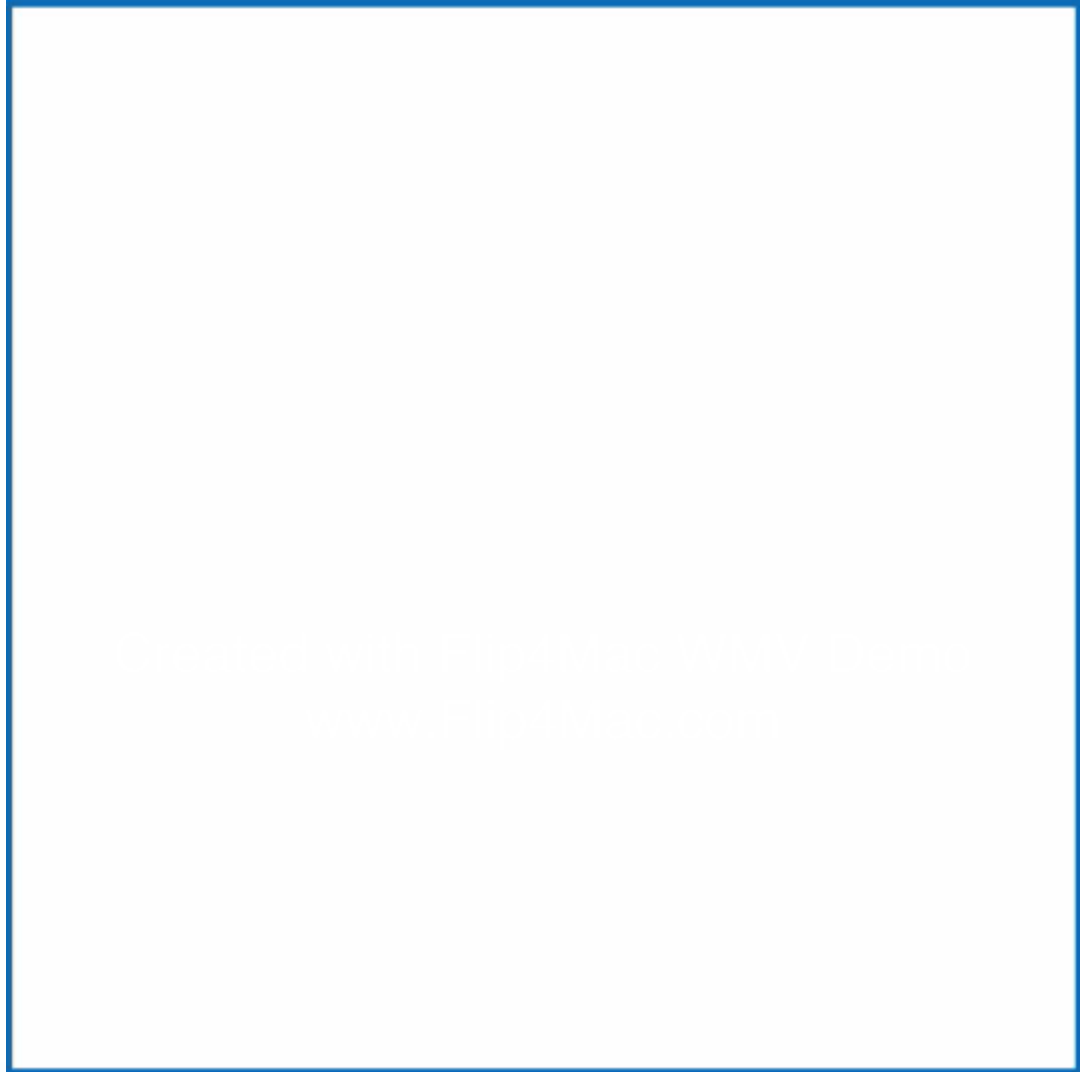
- Initiated early field work
 - Multi-year studies on Chinook salmon
 - Partnerships with Alaska Department of Fish & Game
- Information gathering
 - 1980s studies
 - ADF&G management data
- Engineering Progress
 - Refining design models
 - Board of Consultants
 - Geotechnical exploration
- Independent Cost Estimate

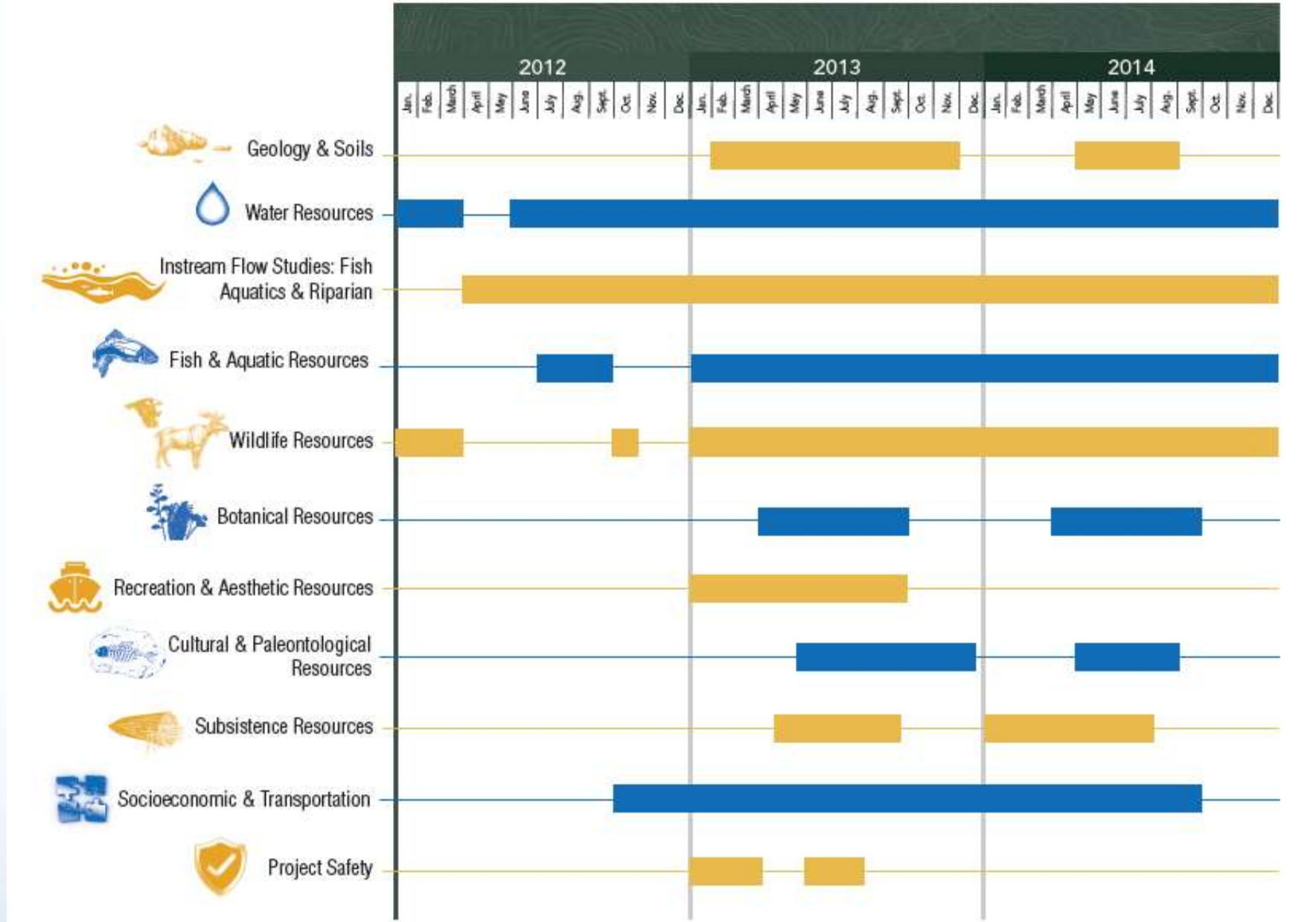
2013 Accomplishments & Goals

- FERC-approved Environmental Study Plan
 - 58 approved studies
 - Implementing studies
- Logistics and Health, Safety Environment Planning
 - Emphasis on culture of safety
- Financial Advising Firm
- Utility Coordination
- Stakeholder Outreach

Revised Study Plan

- Unprecedented effort
- Proactive approach
- 58 studies
- 186,000 acres

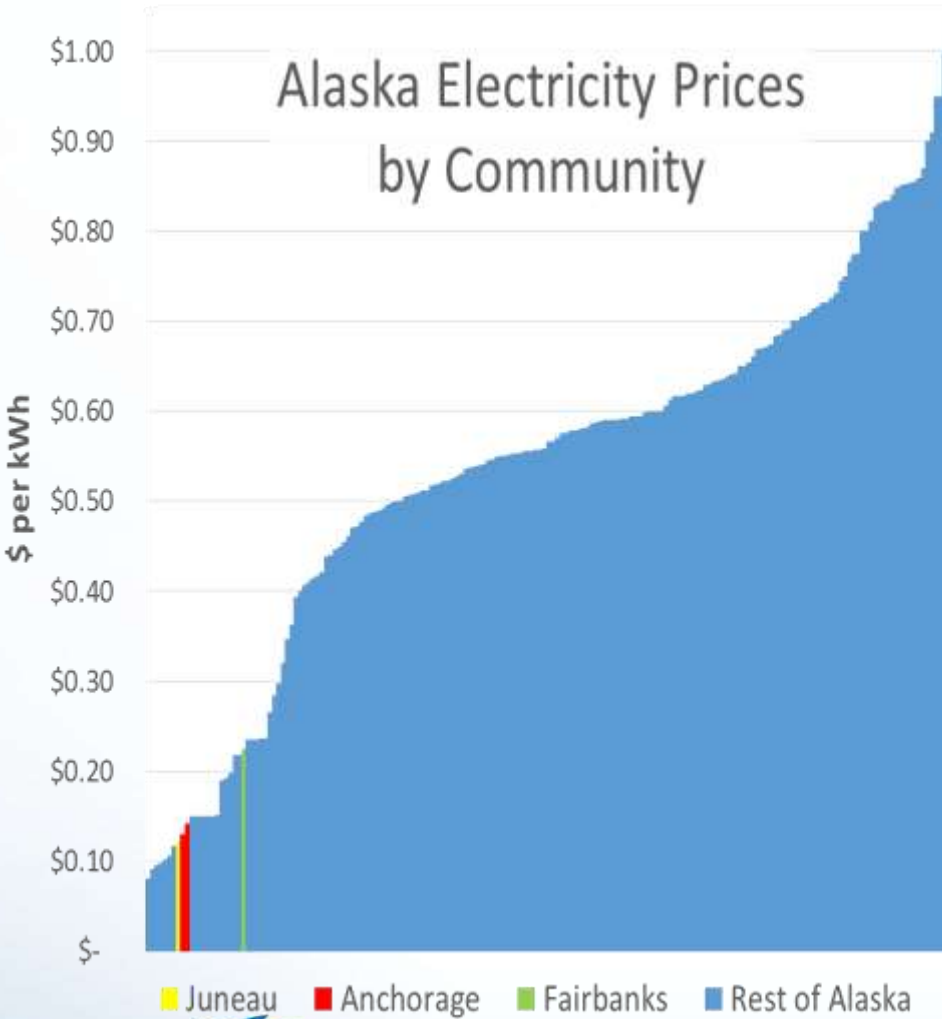




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Alaska's Energy Costs

Alaska Electricity Prices by Community



Heating Costs

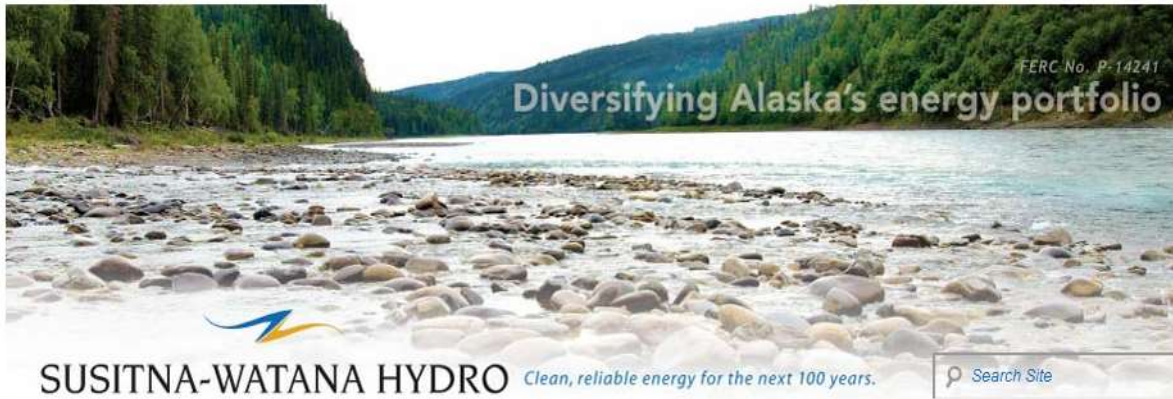


Susitna-Watana Power Costs (\$/kWh)

Year 1 Rate (\$2024)	\$0.181
Year 1 Rate (\$2013 Real)	\$0.138
10 Year Ave Rate (\$2013 Real)	\$0.124
25 Year Ave Rate (\$2013 Real)	\$0.106
50 Year Ave Rate (\$2013 Real)	\$0.061

Real= Adjusted for Inflation

Assumes no Direct State Financing



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Project Highlights

Location: River mile 184, above Devils Canyon
 Size: 750-foot high dam

Reservoir: 41-miles long, 2-miles wide (at widest)

Estimated Supply: Nearly 50 percent of Railbelt electrical demand

Installed Capacity: 600 MW

Annual Energy: 2,800,000 MWh

Licensing: Federal Energy Regulatory

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