



Benefits of Hydropower: A Global Perspective

Alan Krause

President and Chief Executive Officer
MWH Global

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BUILDING A BETTER WORLD

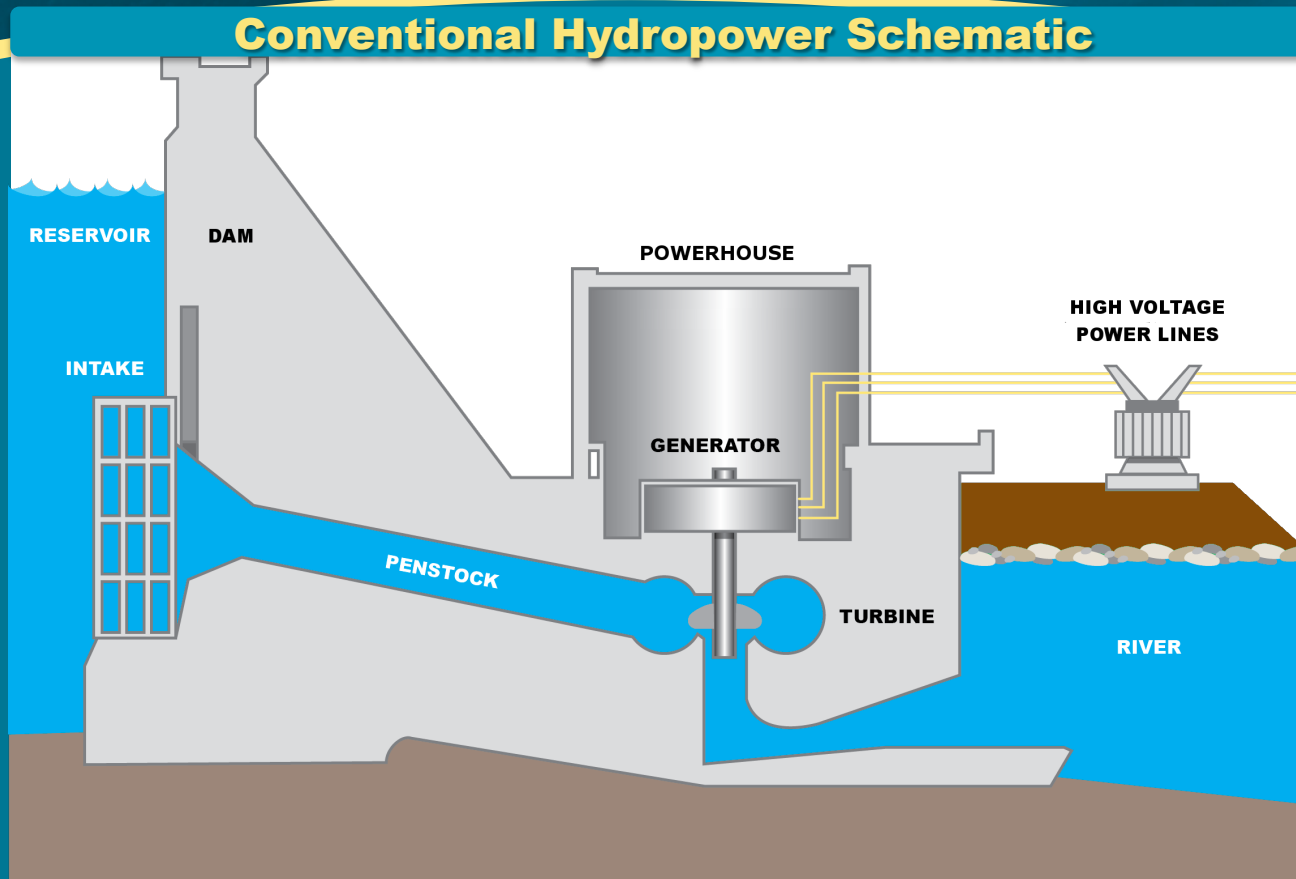
MWH in Alaska

- In Alaska for more than 35 years
- 40 Alaskan Staff with Specialized Expertise:
 - Mining
 - Oil and Gas
 - Hydropower
 - Water and Wastewater



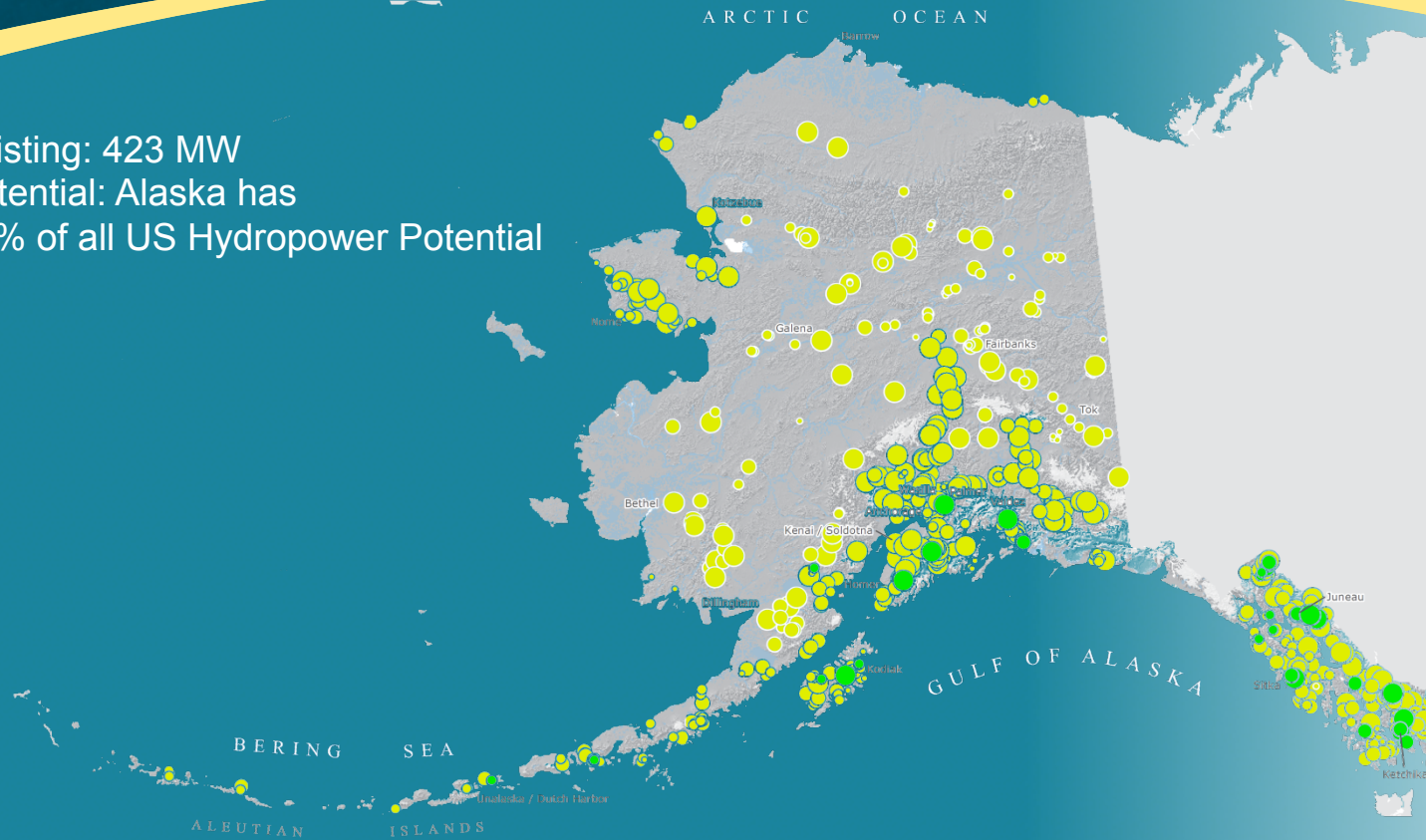
Conventional Hydropower: Power Generation

Conventional Hydropower Schematic



Alaska Hydroelectric Footprint

- Existing: 423 MW
- Potential: Alaska has 40% of all US Hydropower Potential



Use of Hydropower is Expanding to Help Meet the Worlds Energy Needs



Affordable, stable, long-term investment



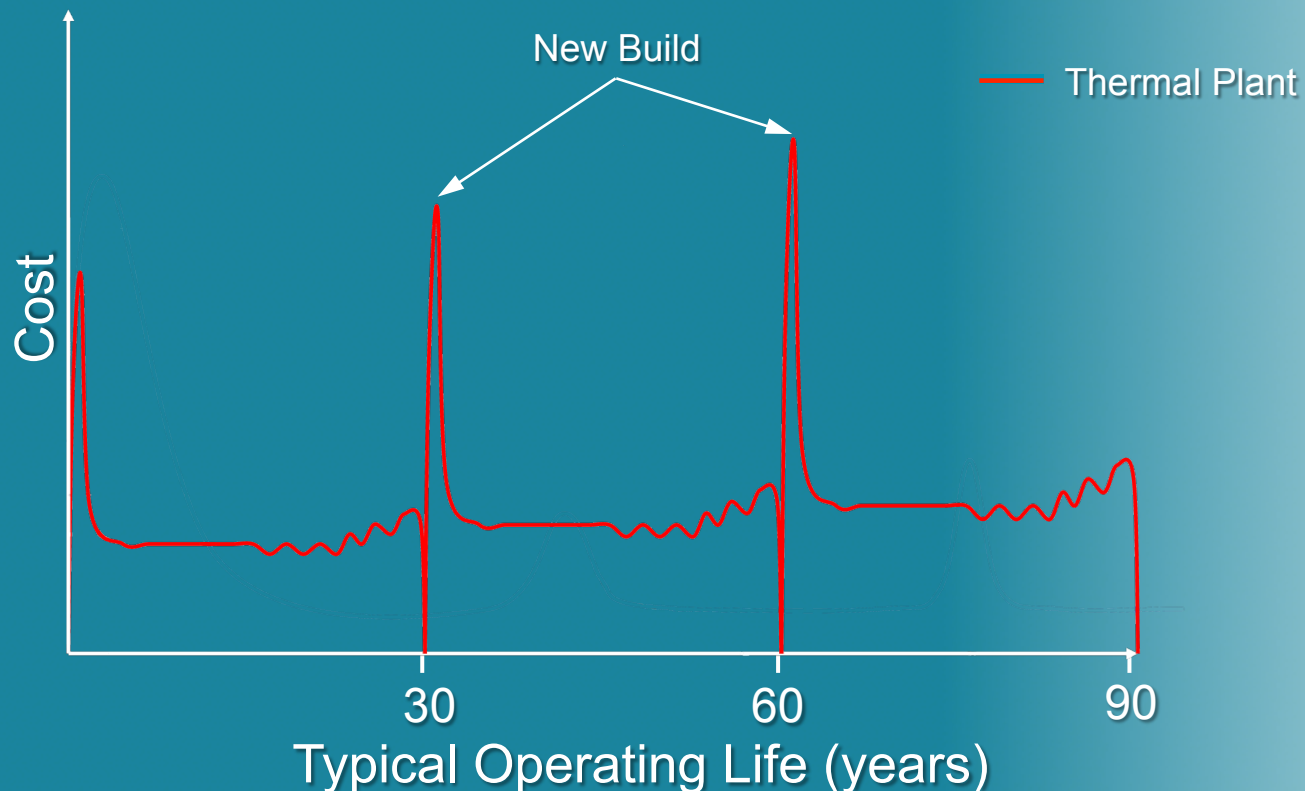
Foundation for economic growth



Diversifies the energy portfolio

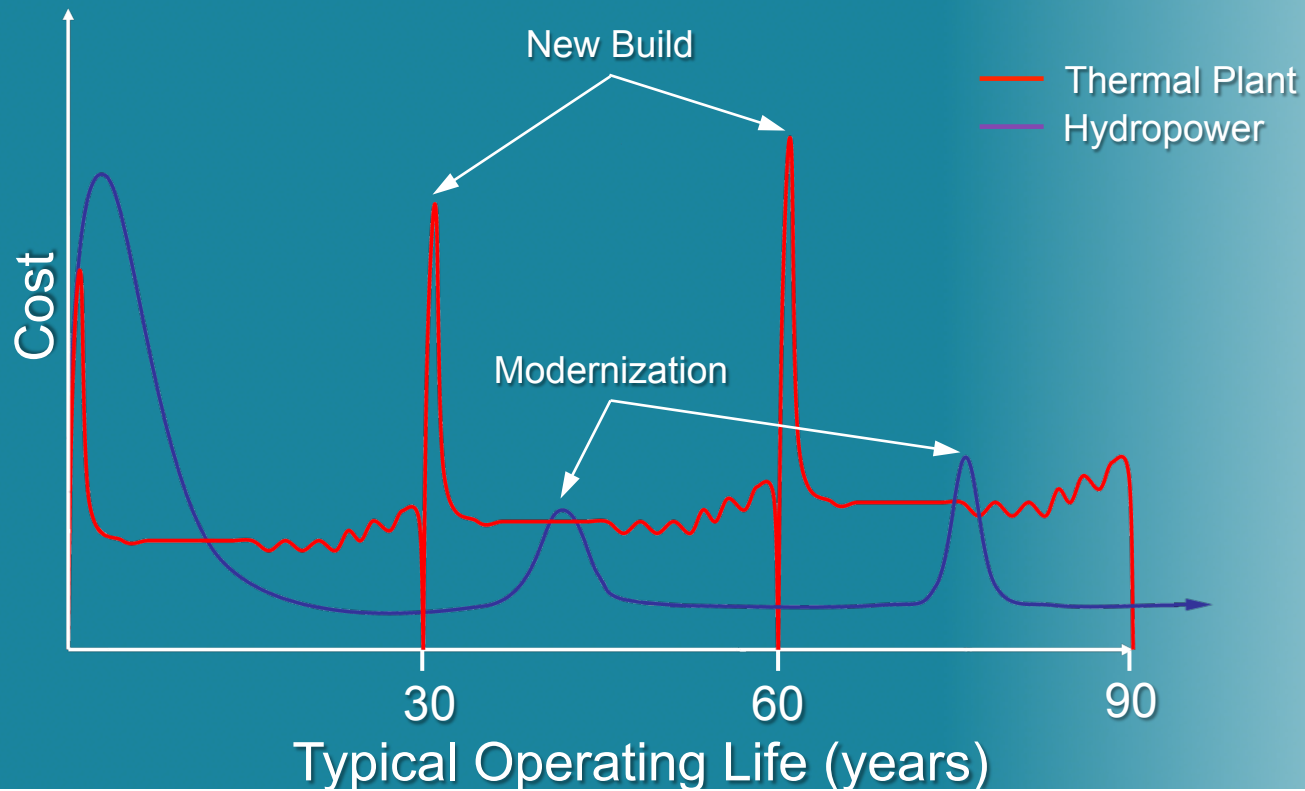


Conceptual Thermal Generation Investment Cycle



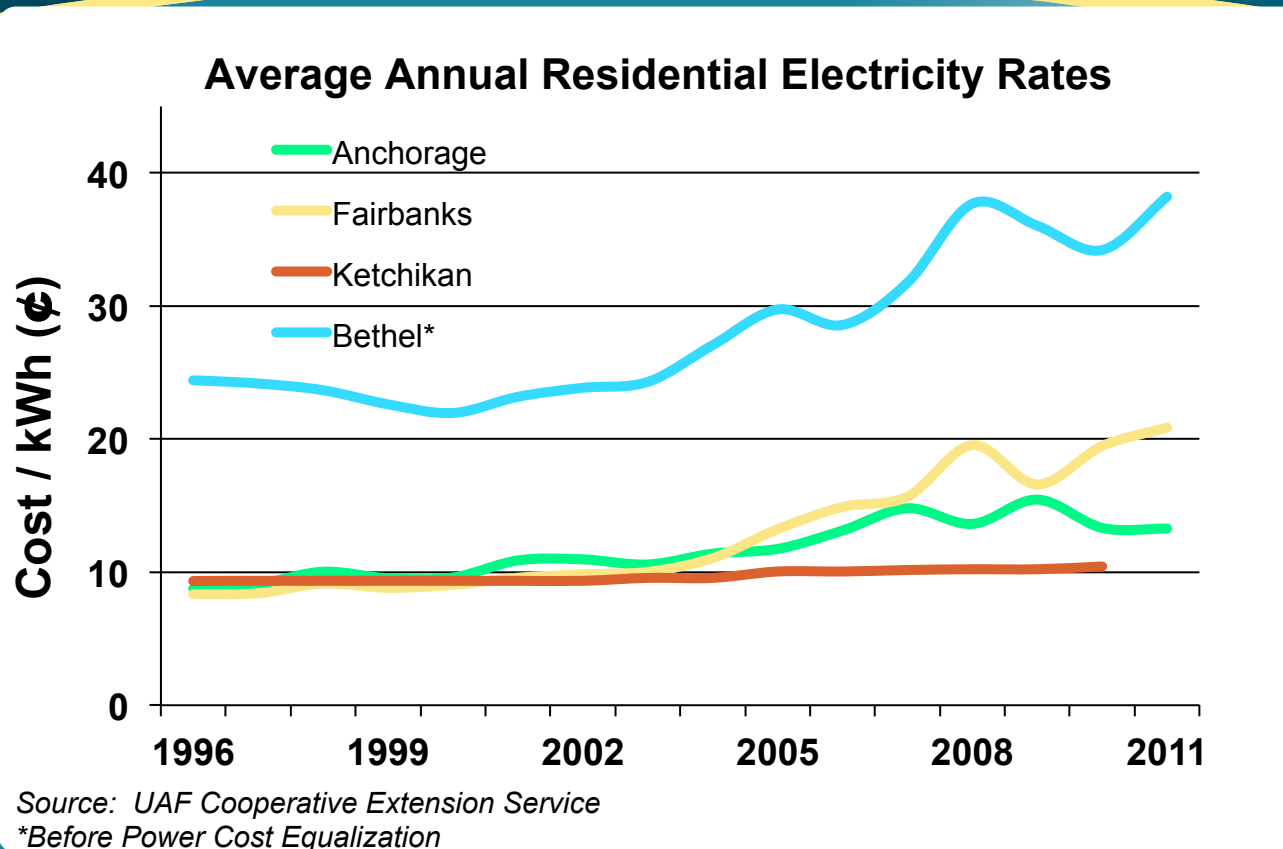


Conceptual Thermal and Hydropower Investment Cycle





Affordable Hydropower Southeast Alaska Example





BC Hydro

Provincial Economic Growth Fueled by Hydropower

- Hydropower grew tremendously beginning in 1960s, supporting:
 - paper & pulp
 - chemical
 - primary metal
 - forestry
- Supports current and future economic growth
- 31 Facilities generate over 10,000 MW

BC Hydro Operates 31 Hydropower Facilities



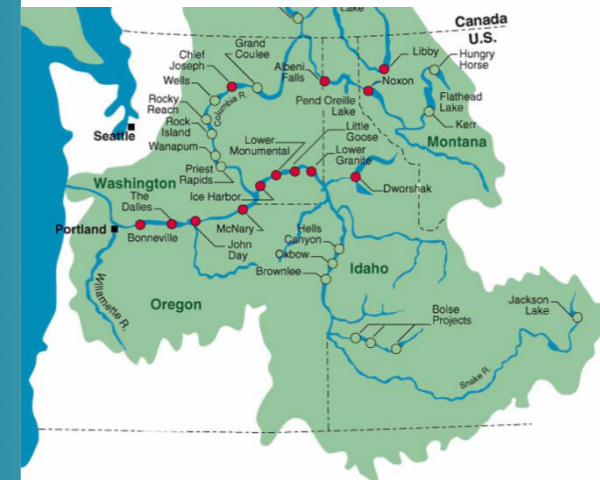


Bonneville Power Authority

Powering the Northwest... and the Southwest

- 13 Hydro facilities
- Largest supplier of power in Pacific Northwest
- Wholesale power rates 3-7 cents per kWh
- Does not rely on federal appropriations
- In 2012, BPA's vision is to be an engine of the Northwest's economic prosperity and environmental sustainability by providing:
 - High reliability;
 - Low rates consistent with sound business principles;
 - Responsible environmental stewardship; and
 - Accountability to the region.
- 22,060 MW
- Vital for integration of Wind and solar resources in region

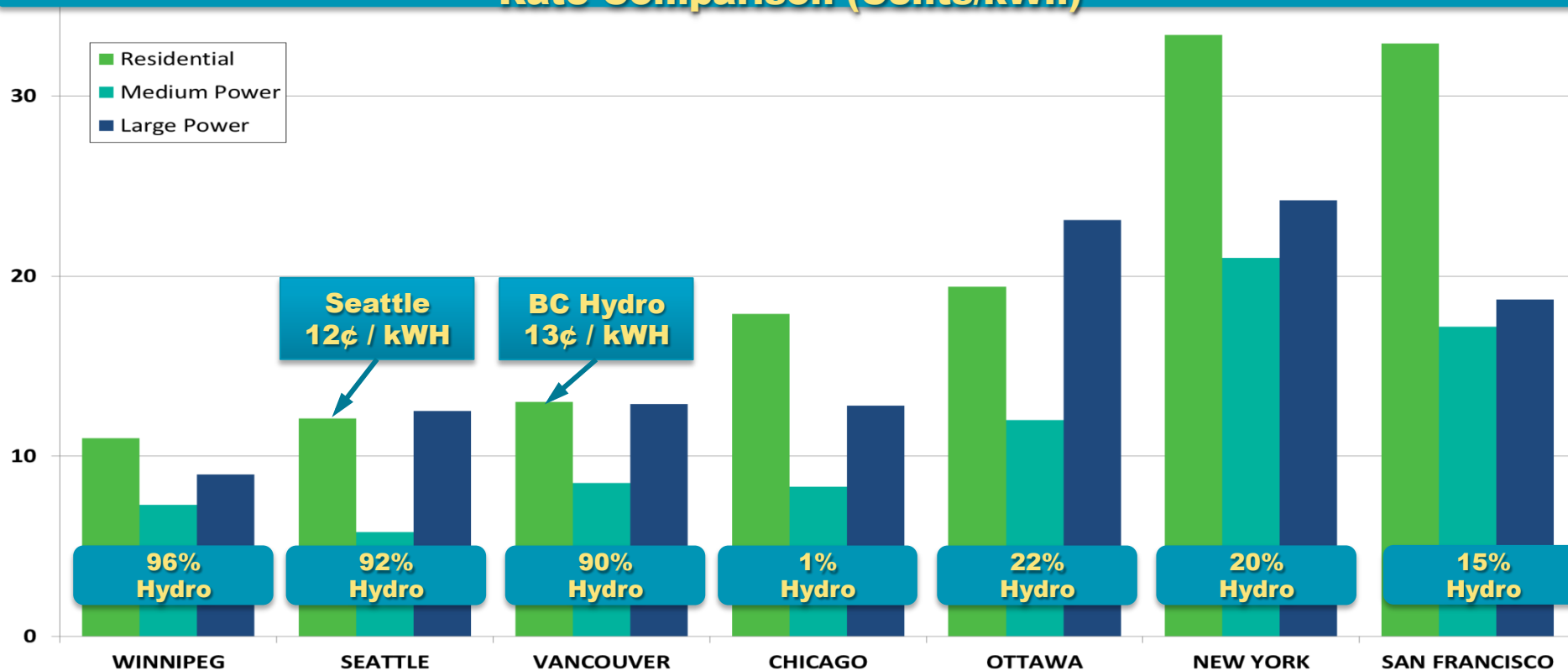
BPA Operates 13 Hydropower Facilities





Hydropower: Affordable, Stable Power Rates

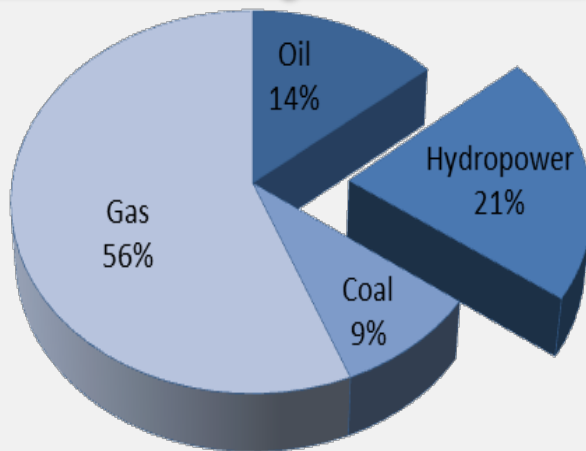
Rate Comparison (Cents/kWh)



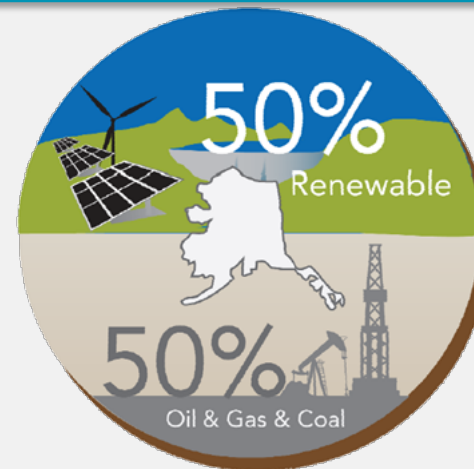


Alaska's Energy Portfolio Shifting towards Renewables

Alaska Current Mix of Electricity Sources



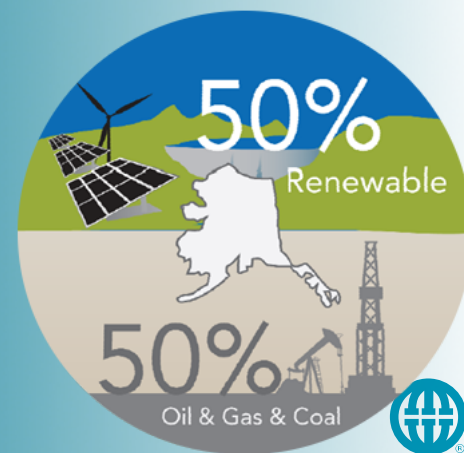
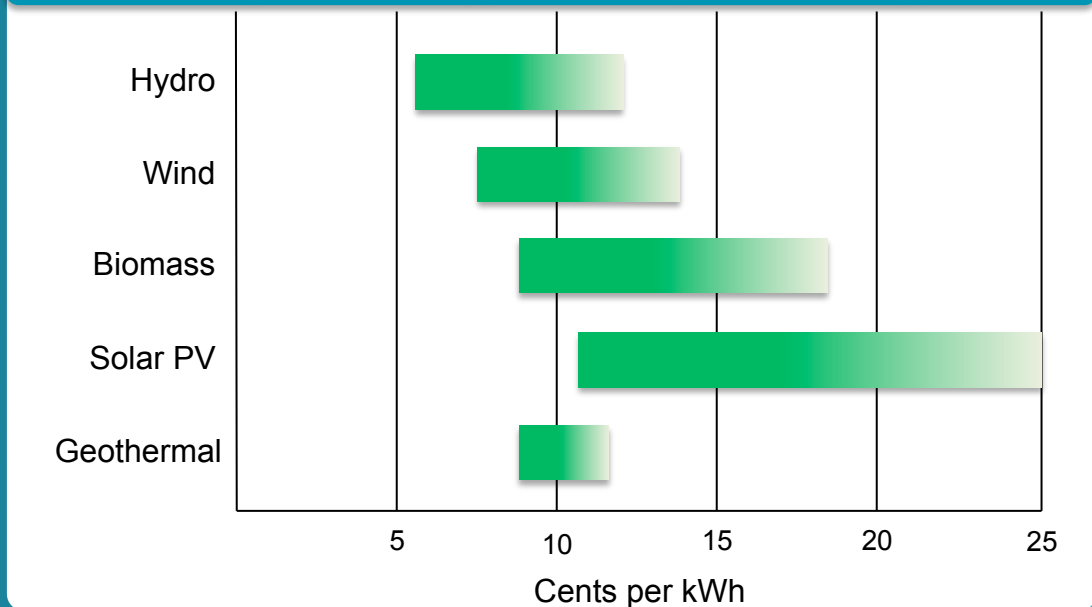
Renewable Goal





Hydropower is the Lowest Cost Renewable and with Large Scale Potential

Range of Energy Rates by Technology



Thank you



Affordable, stable long-term, investment



Foundation for economic growth



Diversifies the energy portfolio with clean, low cost energy