Abundant Affordable Energy

“The cornerstone of economic development”

SEAPA’s Mission: To provide the lowest wholesale power rate consistent with sound utility planning and business practices. We exist for the long-term benefit of our member utilities and the rate payers, providing unified regional leadership for project development and prudent management of our interconnected power system.
Who is SEAPA?

Southeast Alaska Power Agency

Â Regional Generation & Transmission Joint Action Agency
Â Evolved from the Four Dam Power Pool – No Power Cost Equalization (PCE)
Â SEAPA owns the Tyee and Swan Lake Hydroelectric Projects, providing wholesale power and energy to the Municipalities of Ketchikan, Petersburg, and Wrangell
Â SEAPA owns the transmission lines linking those communities together – Approximately 175 miles of transmission, including 14 miles of submarine cable
Â SEAPA’s hydro projects were originally built by the State in early 1980’s and later purchased
Â Bundled services provider (Power Scheduling, Planning, Engineering, O&M, Water Mgmt.)
### SEAPA Regional Overview

#### 2011 Meters
- PSG: 2112
- WRG: 1979
- KTN: 7443

**Totals:** 11,534

#### 2012 Load/MWh
- PSG: 55,404
- WRG: 38,509
- KTN: 181,932

**Totals:** 275,845 MWh

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**Note:** Only 12,000 meters to spread cost of new development.

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#### SEAPA Generation
- **Swan Lake**
  - 25 MVA
  - 77,000 MWh
- **Tyee Lake**
  - 25 MVA
  - 130,000 MWh

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#### Map

- Petersburg
- Wrangell
- Ketchikan
Progress!
Current Expansions Underway:

1. Tyee Cooling Water Mod.  
   1,000 MWhrs (2013)
2. Tyee Outlet Weir  
   4,000 MWhrs (2013)
3. Whitman Lake Hydro-KPU  
   16,000 MWhrs (2014)
4. Swan Lake Dam Raise  
   12,000 MWhrs (2016)  
   (Average 7,500 MWhrs)

**Note:** Load growth forecast (black line) surpasses expected hydro (middle blue line) in 2017.

**2012 Loads**
Black & Veatch Forecast....289,016 MWh
Actual.................................275,845 MWh
Swan Lake Reservoir Expansion Project

Cost: $13,391,869
Need: $12,330,519

BENEFITS:
• Displaces up to 800,000 gallons of diesel annually ($2.75 million)
• Adds 25% more storage
• Maximizes use of existing infrastructure
• Reduces spill (energy lost) over dam
• Compliments other projects
• Adds regional resource management flexibility
• Timed with load growth
• Operational 2016

Currently 174’ High & 430’ long at crest.
Reservoir capacity 86,000 acre-feet.
Tyee Outlet Weir Project (Stream Gage)

Adds 4,000 MWhrs Annually
BAM Construction Crew
(Local Contractor)
Tyee Outlet Weir (Anchor Drilling and Forming)
SEAPA System-Wide SCADA Upgrade Project

Equipment Standardization

Accommodates Future Expansion

Includes a robust satellite communications upgrade
Helicopter Pad Replacements

SEAPA
Southeast Alaska Power Agency
Request for Offers

Four Options:
1. Firm fixed Energy delivery schedule by month
2. Variable Power and Energy schedule (5 year blocks)
3. Propose a delivery schedule within 35% of Options 1&2
4. Joint development of a resource

Schedule:
Notice of intent to offer by 4/15/2013 (over 70MW’s)
Options 1, 2, 3  Submit by 9/30/2014
Option 4  Submit by 11/29/2013

Not limited to hydro
Regional Hydrosite Analysis
Spans from Kake to Metlakatla

- Grant funded effort, follow-up to SEIRP
- Intended to fill resource information gaps
- Will identify highest value projects for future development

Progress...
- Engineering contractor selected
- Field team deployed to Metlakatla in Sept.
- Will expand next year to cover SEAPA region
Challenges and Managing Risk

- Accurate resource assessment
- Licensing and permitting
- Roadless Rule impact
- Accurate construction estimates
- Size and timing of projects
- Demand side management
- Evolution of technologies
- Funding and potential impact to rates

Partnering to share risk...
Questions?