Wrangell Narrows looking north at Petersburg.
Introduction

- Study undertaken by Southeast Conference in January 2009
- Study Participants:
  + D. Hittle & Associates, Inc. - prime contractor
  + Subcontractors: Commonwealth Associates, Tetra Tech
- Report is on Southeast Conference website
Electric vehicle charging station in downtown Portland, Oregon
Kake - Petersburg Intertie Study Update

Purpose of Intertie

- Interconnect Kake to SEAPA power grid
- Bring lower cost power to Kake
  - Retail rates as high as 60 cents/kWh
- Extend the Southeast transmission system for eventual connections to Sitka, Angoon and other new generation projects
Technical Configuration

- Single pole overhead construction, 69-kV
- Follow existing USFS roads or permanent road where possible
- Integrate with fiber optic telecommunication system components
- 2-3 year construction, 5 years total development
Kake - Petersburg Intertie Study Update

Kake – Petersburg Intertie: Northern and Center-South Routes

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Typical USFS Road on Kupreanof Island

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Alternative for Northern Route

- Horizontal directional bore under Wrangell Narrows and Petersburg Creek
- Power cable in pipe – about 10 inch diameter
- Overhead line on Kupreanof Island
- Could reduce cost by several million
Alternative Northern Route Options Through Petersburg
## Estimated Total Cost of Construction 69-kV ($000)

<table>
<thead>
<tr>
<th></th>
<th>Center - South Route</th>
<th>Submarine Cable</th>
<th>Directional Bore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overhead Line</td>
<td>$16,909</td>
<td>$19,791</td>
<td>$21,811</td>
</tr>
<tr>
<td>Clearing and Road Construction</td>
<td>3,765</td>
<td>1,120</td>
<td>1,552</td>
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<tr>
<td>Submarine Cables</td>
<td>8,138</td>
<td>8,850</td>
<td>-</td>
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<tr>
<td>Directional Bore Crossings</td>
<td>-</td>
<td>-</td>
<td>1,710</td>
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<tr>
<td>Switchyards and Substations</td>
<td>1,868</td>
<td>1,521</td>
<td>1,521</td>
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<tr>
<td><strong>Subtotal - Direct Costs</strong></td>
<td>$30,679</td>
<td>$31,282</td>
<td>$26,594</td>
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<tr>
<td>Indirect Costs</td>
<td>$2,644</td>
<td>$2,503</td>
<td>$2,128</td>
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<td>Contingency (15%)</td>
<td>4,970</td>
<td>5,068</td>
<td>4,308</td>
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<tr>
<td><strong>Total Costs</strong></td>
<td>$38,294</td>
<td>$38,852</td>
<td>$33,030</td>
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</tbody>
</table>
Estimated Construction Costs

- Approximately $6 million higher without DOT road on Northern route
- Without DOT road, Center-South route is lower cost alternative
- About $3 million more for 138-kV
Primary Benefits of Intertie

- Reduce diesel generation in Kake
- Lower electric rates in Kake
- Allow for economic incentive rate structures
- Extend the current SEAPA grid
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Kake powerplant

September 15, 2010
Current Activities

- Scoping process
- Applying for Special Use Permit from USFS
- Coordination with US Forest Service
- Complete preliminary design and mapping
- Define additional technical investigations
- NEPA process – Environmental Impact Statement
Scoping Process

- Began with Notice of Intent (NOI) earlier this year
- Public meetings held in Kake and Petersburg in May
- Comments collected and summarized in Scoping Report – under review by USFS
Scoping Process

- Provides input from public and various agencies to direct what to evaluate regarding impact of project
- Further opportunities for more public input
- Development of Work Plan for environmental field work and studies
TetraTech EC has been contracted to undertake the environmental field work
Field work to begin week of Sept. 28 in Kake
Investigations this year to include:
- General wildlife, fish and water
- Vegetation, visual resources
- Cultural resources
Evaluation of both routes
Technical Investigations

- KWETICO has contracted for this work
- Geotechnical studies related to underwater crossings
- Evaluate feasibility of the boring alternative
- Bathymetric surveys
- Update cost estimates
Continued NEPA Process

- Additional field work and studies next year
- Conduct additional public meetings
- Preparation of draft Environmental Impact Statement (EIS) later in 2011
- Final EIS in 2012
Schedule

- Prepare draft EIS in 2011
- Complete EIS in 2012
- Obtain necessary permits and authorizations in 2012
- Construct line in 2012 and 2013
  + Dependent on funding
- Negotiate agreements between SEAPA, IPEC and others