Kake - Petersburg Intertie Update

March 14, 2014
Juneau – Mid-Session Summit

Trey Acteson
CEO, SEAPA

Mark Schinman, P.E.
Commonwealth Associates
There is a Need for the Intertie

- Kake has an isolated electric system
- Local generation is diesel fueled
  - 2.6 MW installed capacity currently (3 units)
- Electricity is crucial to economic development
  - High cost of retail electric service
    (as high as 64 cents/kWh with market fluctuations)
- Average residential consumption very low, 366 kWh/mo
- PCE reduces cost to residential, but not commercial users
Project Funding

- Approximately $5M is Available to Develop the Project so that it is Permitted and Construction Ready
- Additional Funds are Required for Construction
Project Progress

- MOU signed by SEAPA, AEA and IPEC
  - SEAPA agreed to assume the Intertie ownership role provided the project is already 100% funded
- MOU between Metlakatla and Kake for hydro
- A project management office has been established
  - Commonwealth Associates, Inc.
- Environmental Impact Statement underway, Tetra Tech
- D. Hittle January 2010 report being updated
Project Details

- Single wood pole overhead construction
- 69 kV or 138 kV
- Follow existing USFS roads where possible
- Fiber Optic Cable
- 2-3 year construction period
EIS Progress

- Public scoping meetings April/May 2010
- Completed environmental fieldwork
  Fall 2010 and Summer 2011
- Draft Resource Reports to USFS May/June 2012
  - Wildlife
  - Aquatics
  - Botany
  - Wetlands
  - Scenery
  - Soils and Geology
  - Biological Assessment/Biological Evaluation for Wildlife
  - Biological Evaluation for Botany
  - Invasive Plant Risk Assessment
EIS Progress (cont’d)

• Preliminary Draft EIS Chapters Reviewed by USFS
• Comments Received
  – Petersburg Creek – Look for Other Alternatives
  – Roadless Areas - Shovel Trails Only
  – Fewer Options
  – Identify the Proposed Action
• Based on Comments and New Alternative through Petersburg, Complete PDEIS Submitted to USFS
EIS Progress (Cont’d)

• USFS May 2013 – Roadless Rule Applies
• Under Secretary Letter – November 30, 2013
  • Clarified Roadless Rule Not Applicable
• Developed New Construction Approach
• Revised Construction Cost Estimates
• Revised EIS Schedule to Reflect Potential Impacts from the New Construction Approach
Route Alternatives
Marine Crossing Alternatives
# EIS Analysis Alternatives

<table>
<thead>
<tr>
<th>Alternative 1</th>
<th>Alternative 2</th>
<th>Alternative 3</th>
<th>Alternative 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Action</td>
<td>Northern Route w/ Directional Bore</td>
<td>Northern Route w/ Submarine Cable</td>
<td>Center South Route</td>
</tr>
</tbody>
</table>

**Proposed Action**

Alternative 2 – Northern Route w/ Directional Bore
## Three Options

**Total Length**

<table>
<thead>
<tr>
<th>Alternative 2 Northern Route Directional Bore</th>
<th>Alternative 3 Northern Route Submarine Cable</th>
<th>Alternative 4 Center South Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Length</td>
<td>59.9</td>
<td>60.3</td>
</tr>
<tr>
<td>Marine Crossings</td>
<td>1.2</td>
<td>3.1</td>
</tr>
<tr>
<td>Underground Length</td>
<td>1.4</td>
<td>--</td>
</tr>
<tr>
<td>Total Unroaded Length</td>
<td>22.1</td>
<td>22.1</td>
</tr>
</tbody>
</table>

---

**Slide 12**

**Southeast Alaska Power Agency**
Estimated Construction Costs

- Updated cost estimates realistic
  - Acknowledge 2015-2016 Construction
- Information indicates inflation/escalation 4%/year
- Use of wide track vehicles for construction in roadless areas, with helicopter support
- Some helicopter construction due to rough terrain
- Kake substation moved five miles - close to town
### Estimated Construction Costs

**2015/16 Construction ($000)**

<table>
<thead>
<tr>
<th>Northern Route</th>
<th>Prolewy Pt. Dir. Bore (Alt. 2)</th>
<th>Petersburg Sub. Cable (Alt. 3)</th>
<th>Center South (Alt. 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overhead Line</td>
<td>$28,804</td>
<td>$28,804</td>
<td>$25,302</td>
</tr>
<tr>
<td>Clearing, Trails, Helo Pads</td>
<td>7,211</td>
<td>7,211</td>
<td>3,980</td>
</tr>
<tr>
<td>Underground Construction</td>
<td>3,144</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Submarine Cables</td>
<td>-</td>
<td>13,471</td>
<td>13,197</td>
</tr>
<tr>
<td>Directional Bore Crossings</td>
<td>5,820</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Switchyards and Substations</td>
<td>1,835</td>
<td>1,835</td>
<td>2,247</td>
</tr>
<tr>
<td>Subtotal - Direct Costs</td>
<td>$46,814</td>
<td>$51,322</td>
<td>$44,725</td>
</tr>
<tr>
<td>Indirect Costs</td>
<td>$5,017</td>
<td>$5,500</td>
<td>$3,578</td>
</tr>
<tr>
<td>Contingency (15%)</td>
<td>7,775</td>
<td>8,523</td>
<td>7,245</td>
</tr>
<tr>
<td>Total Costs</td>
<td>$59,606</td>
<td>$65,345</td>
<td>$55,548</td>
</tr>
</tbody>
</table>
Next Steps

Update January 2010 D. Hittle Intertie Study  
April 2014

Draft EIS Available for Public Review and Comment  
June 2014

Tentative Public Meetings on Draft EIS (Kake and Petersburg)  
July 15-16 2014

Preliminary Final EIS based on Public Comment/USFS Review  
October 2014

Submit Draft Record of Decision for USFS Review  
December 2014

Revise and Publish Final EIS and ROD  
February 2015

End of 45 Day Appeal Period – EIS Complete  
March 2015

Hire Design Engineers

Hire Construction Contractors

Schedule subject to USFS approval
Thank You,,,,,,