Kake - Petersburg Intertie Update

September 18, 2013
Sitka – Southeast Conference Annual Meeting

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 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
Draft Resource Reports

- Wildlife
- Aquatics
- Botany
- Wetlands
- Scenery
- Soils and Geology
- Biological Assessment/Biological Evaluation for Wildlife
- Biological Evaluation for Botany
- Invasive Plant Risk Assessment

- Received Comments Back
Draft EIS to USFS

- Chapter 1 – Purpose and Need
- Chapter 2 – Alternatives
- Comments Received
  - Petersburg Creek – Look for Other Alternatives
  - Roadless Areas - Shovel Trails Only
  - Fewer Options
  - Define Proposed Action
- Resubmitted to USFS

Youth \& Conservation Trust
Route Alternatives
A New Alternative
## 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

(miles)

<table>
<thead>
<tr>
<th></th>
<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>
<td>51.9</td>
</tr>
<tr>
<td>Marine Crossings</td>
<td>1.2</td>
<td>3.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Underground Length</td>
<td>1.4</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Total Unroaded Length</td>
<td>22.1</td>
<td>22.1</td>
<td>13.1</td>
</tr>
<tr>
<td>Length of Shovel Trails</td>
<td>7.6</td>
<td>7.6</td>
<td>1.3</td>
</tr>
<tr>
<td>Length of Heli Placement</td>
<td>14.5</td>
<td>14.5</td>
<td>11.8</td>
</tr>
</tbody>
</table>
Estimated Construction Costs

- Last estimated in 2010
- Updated cost estimates realistic
  - Acknowledge 2015-2016 Construction
- Vendors contacted indicated inflation/escalation 4-5%/year
- Submarine cable shipping costs raised significantly (fuel)

- Helicopter construction due to roadless constraints
  (not needed if future road constructed)
- Kake substation moved five miles - close to town
## Estimated Construction Costs

### 2015/16 Construction ($000)

<table>
<thead>
<tr>
<th>69-kV Route Alternatives, Limited Roads</th>
<th>Northern Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overhead Line</td>
<td>$36,000</td>
</tr>
<tr>
<td>Clearing, Trails, Helo Pads</td>
<td>6,575</td>
</tr>
<tr>
<td>Underground Construction</td>
<td>3,143</td>
</tr>
<tr>
<td>Submarine Cables</td>
<td>-</td>
</tr>
<tr>
<td>Directional Bore Crossings</td>
<td>5,823</td>
</tr>
<tr>
<td>Switchyards and Substations</td>
<td>1,984</td>
</tr>
<tr>
<td><strong>Subtotal - Direct Costs</strong></td>
<td><strong>$53,526</strong></td>
</tr>
<tr>
<td>Indirect Costs</td>
<td>$5,836</td>
</tr>
<tr>
<td>Contingency (15%)</td>
<td>8,904</td>
</tr>
<tr>
<td><strong>Total Costs</strong></td>
<td><strong>$68,266</strong></td>
</tr>
</tbody>
</table>
Next Steps

Revised Purpose and Need/Alternatives to USFS for Review
July 2013 (Complete)

Update January 2010 D. Hittle Intertie Study
September 2013

Draft EIS Available for Public Review and Comment
October 2013

Public Meetings on Draft EIS (Kake and Petersburg)
November 2013

Preliminary Final EIS based on Public Review and
Comment to USFS for Review
February 2014

Revise and Publish Final EIS and ROD
May 2014

End of 45 Day Appeal Period – EIS Complete
June 2014

Hire Design Engineers

Hire Construction Contractors

Schedule subject to USFS approval
Questions Please,,,,,
The Intertie is a Separate Project

Both projects:

- Can proceed independently of one another
- Have a specific purpose and need
- Are considering different alternatives, some of which may not in the end allow construction of a transmission line (e.g., determining that an increased ferry service may be sufficient).
- Have different time schedules (± 1½ years)
Northern and Center-South Routes
Alternative Northern Routes