Kake - Petersburg Intertie Update

Southeast Conference
Mid Session Summit
February 27, 2013

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CEO, SEAPA

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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
  - Average residential consumption very low, 366 kWh/mo
  - High cost of retail electric service
    (as high as 64 cents/kWh with market fluctuations)
  - 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
- A project management office has been established
  Commonwealth Associates, Inc.
- Environmental Impact Statement underway
- D. Hittle January 2010 report being updated
Northern and Center-South Routes
Alternative Northern Route Options
Project Details

- Single 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
## EIS Analysis Options

<table>
<thead>
<tr>
<th>Submarine Cable Options</th>
<th>Directional Bore Options</th>
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</thead>
<tbody>
<tr>
<td>No Action</td>
<td>Northern Limited Roads</td>
</tr>
<tr>
<td></td>
<td>Northern Directional Bore</td>
</tr>
<tr>
<td></td>
<td>Limited Roads</td>
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<tr>
<td></td>
<td>Northern Limited Roads</td>
</tr>
<tr>
<td>Alternative 1</td>
<td>Alternative 2</td>
</tr>
<tr>
<td>Alternative 3</td>
<td>Alternative 4</td>
</tr>
<tr>
<td>Alternative 5</td>
<td>Alternative 6</td>
</tr>
<tr>
<td>Alternative 7</td>
<td></td>
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</tbody>
</table>
Estimated Construction Costs

• Last estimated in 2010
• Updated cost estimates realistic
  – Acknowledge 2015-2016 Construction
• Alternatives are considered in a format consistent with EIS
• Vendors contacted indicated inflation/escalation 4-5%/year
• Submarine cable shipping costs raised significantly (fuel)
## Estimated Construction Costs

2015/16 Construction  ($000)

<table>
<thead>
<tr>
<th></th>
<th>69-kV Northern w/Sub. Cable (Alt. 2)</th>
<th>69-kV Northern Dir. Bore (Alt. 4)</th>
<th>69-kV Center South (Alt. 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overhead Line</td>
<td>$26,974</td>
<td>$30,379</td>
<td>$23,047</td>
</tr>
<tr>
<td>Clearing</td>
<td>$2,537</td>
<td>$2,976</td>
<td>$1,210</td>
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<tr>
<td>Underground Construction</td>
<td>-</td>
<td>$273</td>
<td>-</td>
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<tr>
<td>Submarine Cables</td>
<td>$13,795</td>
<td>-</td>
<td>$13,511</td>
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<tr>
<td>Directional Bore Crossings</td>
<td>-</td>
<td>$2,314</td>
<td>-</td>
</tr>
<tr>
<td>Switchyards and Substations</td>
<td>$1,984</td>
<td>$1,984</td>
<td>$2,434</td>
</tr>
<tr>
<td><strong>Subtotal - Direct Costs</strong></td>
<td><strong>$45,290</strong></td>
<td><strong>$37,925</strong></td>
<td><strong>$40,201</strong></td>
</tr>
<tr>
<td>Indirect Costs &amp; Contingency</td>
<td>$10,960</td>
<td>$9,178</td>
<td>$9,728</td>
</tr>
<tr>
<td><strong>Total Costs w/o Road Costs</strong></td>
<td><strong>$56,251</strong></td>
<td><strong>$47,103</strong></td>
<td><strong>$49,930</strong></td>
</tr>
</tbody>
</table>
# Additional Potential Costs

## 2015/16 Construction (\$000)

<table>
<thead>
<tr>
<th></th>
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<td>Northern w/Sub. Cable (Alt. 2)</td>
<td>Northern Dir. Bore (Alt. 4)</td>
<td>Center South (Alt. 6)</td>
</tr>
<tr>
<td>Access Road Construction</td>
<td>$5,972</td>
<td>$5,971</td>
<td>$4,782</td>
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<tr>
<td>Additional for Helicopter Const.</td>
<td>$9,713</td>
<td>$11,722</td>
<td>$6,661</td>
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<tr>
<td>Additional for 138-kV Construction</td>
<td>$5,436</td>
<td>$3,906</td>
<td>$5,144</td>
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</tbody>
</table>
Next Steps

Update D. Hittle Intertie Study Update (dated January 2010)  
February 2013
EIS - Purpose and Need/Alternatives to USFS for Review  
February 2013
Draft EIS Available for Public Review and Comment  
May or June 2013
Public Meetings on Draft EIS  
June or July 2013
Preliminary Final EIS based on Public Review and Comment to USFS for Review  
September 2013
Revise and Publish Final EIS and ROD  
December 2013
45 Day Appeal Period Complete  
February 2014
Hire Design Engineer  
Mid 2013 to Early 2014
Construction Ready Assuming Funding Available  
Spring 2014
Thank You!!!