Calista Energy Management Assistance Initiative

US Dept. Of Energy
Office of Indian Energy

Presented by:

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Government Relations Liaison

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1. Transportation Access
   • Access In & Out
   • Airports, ferries, railroad, ports, roads, trails
     – Federal Land restrictions isolate our communities and resources today

2. Affordable Energy
   • Dependable Power
   • Affordable Energy
     – Diesel used for heat and electricity is largely imported
     – Few Transmission Grids

Economy
• Economy (jobs) means access to our God Given Resources:
  - Minerals
  - Oil and Gas
  - Forests
  - Mammals
  - Fisheries
  - People!
Calista Corporation
Regional Villages

Demographics

<table>
<thead>
<tr>
<th></th>
<th>Calista Region</th>
<th>Alaska</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>25,735</td>
<td>737,259</td>
</tr>
<tr>
<td>Median income</td>
<td>45,933</td>
<td>70,760</td>
</tr>
<tr>
<td>High school education</td>
<td>78.1%</td>
<td>91.6%</td>
</tr>
<tr>
<td>Bachelor's +</td>
<td>8.6%</td>
<td>27.5%</td>
</tr>
<tr>
<td>Persons below poverty</td>
<td>27.1%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Persons under 18 years</td>
<td>39.1%</td>
<td>25.6%</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>17.6%</td>
<td>6.3%</td>
</tr>
</tbody>
</table>

Source: US Census

Jan 2015

<table>
<thead>
<tr>
<th></th>
<th>Y-K Delta</th>
<th>On-Road</th>
<th>Statewide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heating Fuel</td>
<td>$6.38</td>
<td>$3.41</td>
<td>$5.10</td>
</tr>
<tr>
<td>Gasoline</td>
<td>$6.90</td>
<td>$3.42</td>
<td>$5.80</td>
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</table>

2012 Fish & Game

<table>
<thead>
<tr>
<th>Subsistence</th>
<th>Households</th>
<th>Est. Harvest/lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bethel Hub</td>
<td>Harvesting-Sharing</td>
<td>All Resources</td>
</tr>
<tr>
<td>85.1% - 70.1%</td>
<td>954,525</td>
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</table>
Calista Energy Management Assistance Initiative

• Aims to provide technical assistance to the 56 tribal communities
• Reduce costs of electricity and heating
• Improve operational efficiency
• Enhance human capacity & job opportunities
• Integrate energy plans, i.e. AVCP Inc., system maintenance & development efforts across communities
• CEMAI will create a regional roadmap, increase economies of scale and foster resilient service delivery
• CEMAI will measure and benchmark energy performance outcomes/costs across communities
• Assist with Rate Setting and Financial Planning
• Provide access to experts across region, state and nation
• Facilitate intra-regional communication, education and outreach
• Aggregate needs and opportunities through an IT platform
Reduce energy costs to facilitate subsistence

- Replace Old Refrigerators
- Install LED lights
- Energy Efficiency Assessments of Homes
  - using thermal imaging cameras
  - blower door tests
Capacity Building: Reduce cost of energy for Industry

Skiff Manufacturing/Repair
243 Skiffs built since ’99
2014 & employees Earn $236,405

KWIK’PAK Total Wages - $15,173,221
2014: 155 Youth Earn $281,492
2013: 176 Youth Earn $280,000
2012: 170 Youth Earn $288,036
2011: 142 Youth Earn $233,700

Tons of Cargo – EMMONAK Port
(2012-2013 City Only)
Capacity Building and Training
Solution: Village Cluster Consolidated Services

High Cost of Energy Threatens Sustainability

<table>
<thead>
<tr>
<th></th>
<th>AVEC, Inc.</th>
<th>No PCE</th>
<th>PCE</th>
<th>Anchorage</th>
<th>Alaska</th>
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</thead>
<tbody>
<tr>
<td>Cents/KwH</td>
<td>59.17</td>
<td>39.55</td>
<td>13.48</td>
<td>17.88</td>
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</table>

1. **Access:** commit to link villages by road
2. **Energy:** commit to transmission lines
3. **Coordination:** of the shared public services, infrastructure, Maint. & Ops.
   - Power Plants
   - Schools-institute regional high schools
   - Airports
   - Sub-regional Clinics already implemented
Village Cluster Consolidated Services

State Benefits:
- Reduce Duplication
- Economies of Scale
- Coordinated State Agency Master Plans
- Sharing of Resources
- Centralized, Better Schools
- Leverage Limited State Capital & Operating Funds

Local Benefits:
- Linked Communities
- More Reliable Power
- Cheaper Energy and Transportation Costs
- Higher Quality Services
- Improved Education for Rural Students
- Improved emergency services and resources

Toksook Bay Cluster Communities
Donlin Creek Mine Proposes Affordable Energy

- $1 Billion pipeline privately financed
- Provides dependable power
- 315 mile buried 14” natural gas pipeline
- Capacity to transmit < 5% of the proposed Alaska LNG project
- Affordable energy for the region
- Potential to expand into an energy grid for the planned cluster community electric interties
Quyana - Thank You!
Working for Future Generations

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