Reynolds Creek Hydroelectric Project

August 2012 Project Update

Alvin Edenshaw, Chairman of the Board
Haida Energy, Inc.

Corry V. Hildenbrand, Project Manager
Haida Corporation

- Located in Hydaburg on Prince of Wales Island.
- Hydaburg population = 350 people (called Kaigani Haida)
- Hydaburg is largest Haida Village in Alaska
- Subsistence and Commercial Fishing Lifestyle
- Substantial Timber Holdings
Prince of Wales Island

- Third Largest Island in United States
- 135 miles x 45 miles
- Population = 6,000
- Economy Centers on Fishing, Timber, & Tourism
- 2008 Energy Consumption = 26,313 MWh
- Two Existing Hydro Projects: Black Bear Lake (4.5 MW) and South Fork (2.3 MW)
- Remainder of Generation is Diesel-fired
Reynolds Creek Hydroelectric Project

- Haida Corporation has been planning development of the project for more than 20 years.

- Joint Venture


- Ownership:
  75% Haida Energy Inc.
  25% Alaska Power & Telephone Company (local utility)
Reynolds Creek Hydroelectric Project

- FERC License received October 2000.
- The Project is vital to promoting future growth and business opportunities within the region.
- The project will financially benefit the ratepayers through near elimination of diesel costs.
- Power users will benefit from increased stability in the cost of power and the increase in reliability of the electrical system.
Project Team

- Lead Consultant – HDR Engineering, Inc.
- Project Management – Hildenbrand Assoc. LLC
- Economic Feasibility/Financing – Financial Engineering Company
- Joint Venture Agreements – Kemppel Huffman & Ellis, Anchorage
Project Location
Principal Project Components

- 28-ft-long, 6-ft-high Diversion Structure at Outlet of Rich’s Pond

- Lake Mellen/Rich’s Pond provide 600 acre-feet of storage

- 42-inch diameter, 3200-ft-long Penstock

- Powerhouse (One 5 Megawatt Unit)

- 34 kV, 12-mile-long Transmission Line
Reynolds Creek Project

Lake Mellen Outlet

Rich’s Pond Inlet
Reynolds Creek Project

Rich’s Pond

Rich’s Pond Outlet
Reynolds Creek Project

Upper Reynolds Creek

Lower Reynolds Creek
Project Characteristics

- Approximately 750 feet of Head
- Average Annual Energy Production = 19.3 million kilowatt-hours
- Land Owned by Haida Energy Corporation and Sealaska – both Alaska Native Corporations
- Alaska Power Company will Operate, and Purchase Power From Project
- Will Allow All Interconnected Portions of Prince of Wales Island to be Supplied by Hydropower
Project Characteristics

- Minimal Environmental Impact
- Utilizes Existing Logging Roads for Access
- Fish in Reynolds Creek drainage include grayling, Dolly Varden, cutthroat trout, pink and chum salmon, and steelhead
- Terrestrial Species include Sitka black-tailed deer and black bear
Major Approvals Received

- FERC License (Project No. 11480) received October 2000.
- Corps of Engineers Permit
- Fish Habitat Permit
- Coastal Zone Consistency Determination
- Water Rights Permit
Major Construction Milestones

- Began Construction – October 24, 2010

- Civil Access Work – September 2011 – June 2012 (completed)

- Began Transmission Line Const. – August 2011 (1-mile completed)

- Order Turbine/Generator – November 2012

- Project On-line – Summer 2016
## Project Costs

<table>
<thead>
<tr>
<th>Item of Work</th>
<th>Amount ($)</th>
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<tbody>
<tr>
<td>Mobilization &amp; Logistics</td>
<td>3,725,000</td>
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<tr>
<td>Access Facilities</td>
<td>929,000</td>
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<tr>
<td>Reservoirs, Dams &amp; Waterways</td>
<td>1,562,000</td>
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<tr>
<td>Penstock</td>
<td>4,186,000</td>
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<tr>
<td>Powerhouse</td>
<td>3,810,000</td>
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<tr>
<td>Transmission Line</td>
<td>3,350,000</td>
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<tr>
<td>Completion</td>
<td>340,000</td>
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<tr>
<td>Other Professional Services/ Administration Costs</td>
<td>4,848,000</td>
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<tr>
<td><strong>TOTAL PROJECT COSTS (Rounded)</strong></td>
<td><strong>22,750,000</strong></td>
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</tbody>
</table>
RCH Project – 2011 Work

Copper Harbor Road Clearing

Copper Harbor Temporary Float
RCH Project – 2011 Work

Area perspective from above Lake Mellen on access road. Excavator is at start of dam access road.

Pioneering on Powerhouse Road
RCH Project – 2011 Work

Overburden Removal on Dam Access Road

Overview of Powerhouse Road Construction
RCH Project – 2011 Work

Contractor salvaging rock from “1-Mile Pit”

Overview of 1-mile Pit
RCH Project – 2011 Work

Hetta Inlet, Copper Harbor and Boat Ramp and Staging Area

Application of Straw Mulch and Fiber Log for Erosion Control
RCH Project – 2011 Work

Transmission Line Installation

Blast from upper road perspective on the Powerhouse Road
RCH Project – 2012 Work

Repair of a minor slide at 3.6 mile Copper Harbor Road.

Truck and Komatsu 220 loading rock from quarry at 3 mile Copper Harbor Road
RCH Project – 2012 Work

Loader loading culverts in staging area for installation

Komatsu 220 working on culvert excavation sta 4+00 and ditch cleaning Powerhouse Road
RCH Project – 2012 Work

Slope Staking work along Rich's pond near Diversion pipe invert.

Biologists in boats completing the Grayling survey in Lake Mellen
RCH Project – 2012 Work

Dozer working the rock fill on Dam Access road

Komatsu 220 working on pioneer access route to highline area, Greg on temporary access route
RCH Project – 2012 Work

Corry and Glenn (FERC) watching the Excavator expose the rock surface on the south abutment of the Dam site

Dam Access Road
RCH Project – 2012 Work

Drilling test hole in Temporary Reynolds Creek Crossing

Loading Rock at beginning of Dam Access Road for culvert backfill
RCH Project – 2012 Work

Completing topographic survey work around the Dam site

Drilling on RC 4
RCH Project – 2012 Work

Drilling on RC2

Core Samples
# Project Schedule

<table>
<thead>
<tr>
<th>TASK</th>
<th>START</th>
<th>FINISH</th>
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<tbody>
<tr>
<td><strong>REYNOLDS CREEK CONSTRUCTION SCHEDULE (FERC PROJECT P-11480-AK)</strong></td>
<td>10/25/2010</td>
<td>8/19/2016</td>
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<tr>
<td>CONSTRUCTION START</td>
<td>10/25/2010</td>
<td>10/25/2010</td>
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<tr>
<td>PROJECT MANAGEMENT &amp; ADMINISTRATION</td>
<td>1/3/2011</td>
<td>8/19/2016</td>
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<tr>
<td>DAM SITE EVALUATION &amp; PERMITTING</td>
<td>5/26/2012</td>
<td>11/22/2013</td>
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<tr>
<td>ROAD ACCESS IMPROVEMENTS</td>
<td>5/20/2013</td>
<td>10/9/2013</td>
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<tr>
<td>CAMP</td>
<td>11/3/2014</td>
<td>7/13/2015</td>
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<td>MARINE ACCESS</td>
<td>4/3/2013</td>
<td>11/21/2013</td>
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<tr>
<td>TURBINE/GENERATOR: ORDER, FABRICATE, DELIVER INSTALL</td>
<td>9/1/2012</td>
<td>5/5/2016</td>
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<td>POWERHOUSE SITE: DESIGN, ORDER MATERIAL, BUILD INSTALL</td>
<td>4/1/2013</td>
<td>8/24/2015</td>
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<td>SUBSTATION: DESIGN, ORDER, BUILD</td>
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<td>TRANSMISSION LINE</td>
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<td>DAM: DESIGN, ORDER MATERIAL, CONSTRUCT</td>
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<td>VALVE VAULT/INTAKE SYSTEM</td>
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<td>9/22/2015</td>
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<td>CLEAR/GRUB/SURVEY ALIGNMENT ACTIVITIES (PENSTOCK ALIGNMENT)</td>
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<td>10/15/2013</td>
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<tr>
<td>PENSTOCK: DESIGN, ORDER, INSTALL, TEST</td>
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<td><strong>COMMERCIAL OPERATION</strong></td>
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