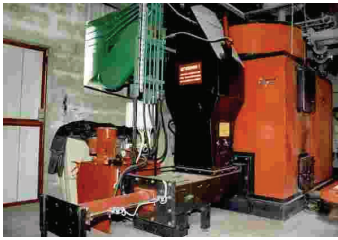


Quillayute Valley Wood-fired Boiler Pilot Project

Seeking a means of retaining jobs, providing heat and possibly power to the School, and demonstrating yet again the innovation of the West End!



PORT of PORT ANGELES
WASHINGTON STATE



The project is funded through an appropriation by the Washington State Legislature, in the **Laws of 2008, Chapter 328, Section 1013**, as part of the Washington State Energy Freedom Program as administered and directed by the Department of Community, Trade and Economic Development.

What the project is:

Construction of a woody biomass heating system, with possible micro-turbine based electrical cogeneration, to provide heat via hot water to the Forks Middle School, some neighboring QVSD buildings, and integrate this system into any future building associated with the Forks High School. Identified components could include:

- A 2,300 sq. ft slab-on-grade boiler house with necessary air circulation systems;
- A new 1,526 MBtuh wood chip boiler, if not larger due to buildings and co-gen options, with associated emission controls installed in said boiler house;
- A storage bay that could contain at least 24 hours of feed stock inside the boiler house;
- An automatic chip feeding mechanism; and,
- Associated operational equipment for the system.

Project objectives:

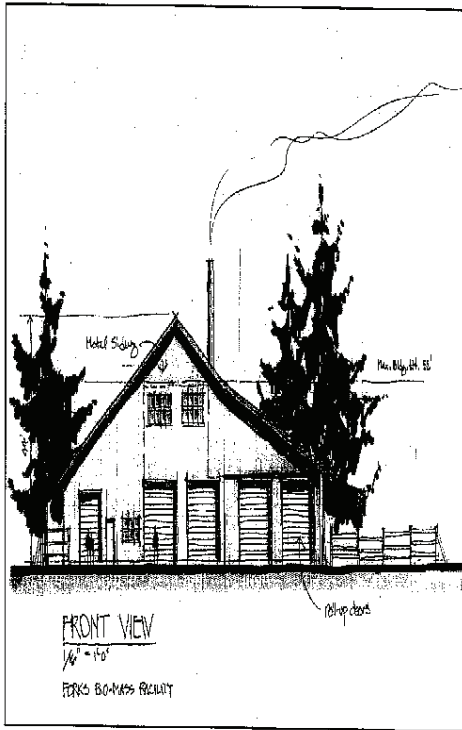
- Assist in the retention of 100-130 jobs associated with the 10-13 cedar mills in the greater Forks area;
- Stabilize, and quite possibly reduce, increasing heating and electrical costs for a rural school district where ~55% of its students are enrolled in the federally funded free and reduced lunch program;
- Demonstrate the role that woody biomass can and should play in developing renewable sources of alternative biomass energy.
- Demonstrate the ability to convert wood waste to power while meeting, and where possible exceeding, State and Federal emission standards and assess meeting some Kyoto Accord based emission standards of European countries if possible.
- Savings from the production of heat and power would permit the District to direct savings to meet the increased costs of educating its students.
- Replace current older fossil-fuel based heating and hot-water systems within District.

Work to date:

- UW ONRC/CFR Study on Cedar Mill Waste and options for use;
- Governor Gregoire provided a grant to CCEDC lead study on biomass energy options for the Westend;
- CTED provided a small micro grant to pursue other options within woody biomass energy development, as well as assess permitting issues and contracting issues;
- Representatives Kessler and Van de Wege, and Senator Hargrove, secured a \$1,000,000 grant for the construction of a pilot project in the Quillayute Valley;
- QVSD formed project team lead by Diana Reaume that will include members of the District, Port of PA, City, and the CCEDC;
- Seeking federal funding for specific elements that may be hard to incorporate with the state funds received:
 - Micro-turbine cogeneration options (\$1k per kWh of generation— up to 250kWh);
 - Middle school distribution system (pipes);
 - Documentation of “lessons learned” similar to community telecom booklet sent around nation; and,
 - Educational component for science curriculums on woody biomass usage.

Next steps:

- Solicit for Engineering Firm for project is on the streets; and,
- Address funding needs for additional components.



What is currently not included in the funding received to date—but seeking partners:

- **Micro-turbine co-generation**
Utilized with larger projects of a similar nature. Costs for the co-generation are ~\$1,000 per kWh of generation. Objective is to generate up to 250 kWh of “green energy” that school can utilize or exchange to local Public Utilities District to permit PUD to meet green energy requirements.
- Another potential is partnering with tribal governments who would utilize the generated energy as credits for members with fixed incomes.

What is the timeline for this project?

- Engineering for bidding to be completed by 1 Jan 2009;
- Award construction contract in Jan/Feb 2009;
- Project completion in Dec 2009/Jan 2010;
- Plant to go operational in a “shake down mode” in Feb 2010.

Who else is being solicited as potential partners?

- We are discussing with the federal delegation, and have been for some time, this project and how it aligns itself with recent policy discussions on alternative fuels.
- We also would like to discuss this operation with carbon credit traders as there is an offset in utilization of carbon associated with this operation.

Partners Working on this Project/Program

- **Quillayute Valley School District No. 402**
Diana Reaume, Superintendent
(w) 360/374-6262; dreaume@esd114.wednet.edu
- **City of Forks**
Mayor Nedra Reed & Rod Fleck, Attorney/Planner
(w) 360/374-5412; nree.forks@centurytel.net, rodf.forks@centurytel.net
- **Port of Port Angeles**
Commissioner John Calhoun
(w) (360) 327-3833; jcalhoun@u.washington.edu
- **Clallam County Economic Development Council**
Patti Morris, President and Linda Rotmark, Executive Director
(w) 800/494-2501; pmorris@tierra-row.com; lrotmark@clallam.org

Assisted by:

- 24th District Legislators
State Representative Lynn Kessler, State Representative Kevin Van de Wege, and State Senator Jim Hargrove
- Clallam County Commissioner Mike Doherty
(w) 360/417-2233; mdoherty@co.clallam.wa.us
- Olympic Regional Clean Air Agency
Richard Stedman, Executive Director
(w) 800-422-5623; richard@orca.org
- WA Depart. of Community, Trade and Economic Development
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