

FOREST BIOMASS WORKING GROUP
MEETING MINUTES
July 26, 2006

1. Joe Misek welcomed everyone to the fifth meeting of the Forest Biomass Working Group (FBWG). All present introduced themselves. The agenda for the day was discussed and public participation welcomed.
2. The **next FBWG meeting will be on Tuesday 9/26 from 10:00 am to 3:00 pm** here again at the Oregon Department of Forestry headquarters, 2600 State St. in Salem, in the Tillamook Room, from 10 a.m. to 3 p.m. (west side of Mill Creek). Parking is available on both sides of the creek.
3. Gordon Draper, a Vice-President of Biomass One in White City, Oregon, discussed the company's business which began as a co-generating plant in 1985. Biomass One has been in business 21 years.
 - ✓ Biomass One is a privately-owned, for-profit company, with a 25-year power contract with Pacific Corp. This contract will terminate in 2011 when all debt will be paid.
 - ✓ Biomass One burns woody biomass to generate electricity, which it sells to Pacific Power and Light, and steam, which it sells to nearby mills for drying wood products. It also produces and sells landscaping products.
 - ✓ It has a 25-megawatt capacity and typically produces enough electricity for about 19,000 homes.
 - ✓ Biomass One employs 68 people in family wage jobs with benefits. The company pays well because much of the plant and in-woods equipment requires skilled operators. The plant runs 24 hours a day (four shifts), seven days a week for 50 weeks of the year.
 - ✓ The plant consumes about 220,000 bone dry tons (BDT) per year of woody biomass, with an average cost of \$28/BDT. Current trucking costs are about \$2 per road mile.
 - ✓ Their website is www.biomassone.com/.
 - ✓ The company is discussing expansion that would include adding a third steam turbine.
 - ✓ Twenty percent of Biomass One's raw material supply comes from forest residuals and orchard thinnings; 25 percent comes from urban/yard wood waste delivered to the company yard; and 55 percent comes from mill residuals in southwestern Oregon.
 - ✓ Biomass One's pollution control equipment is state-of-the-art and closely monitored by the state Department of Environmental Quality office.
 - ✓ The plant maintains about 84,000 green tons of fuel inventory on the grounds, enough for about nine weeks of production. That equates to about 2,300 pounds of dry wood burned per kilowatt hour of electricity.
 - ✓ Biomass One uses the equivalent of 14,000 chip trucks a year. These trucks drive 3.5 million miles and consume 800,000 gallons of gas. On

- average, Biomass One reaches out 60 miles to pick up clean biomass piled in accessible areas but has gone out up to 135 miles to transport material.
- ✓ Preferring air-dried raw material, the company builds a large summer inventory in order to lower the average moisture content level of material acquired and burned in the winter.
 - ✓ Biomass One generates 20 tons (one truckload) of waste (boiler ash) per day, which it delivers to agricultural fields in the area at a transport cost of \$150,000 per year.
 - ✓ Industry-wide, the efficiency rate of a woody biomass plant is about 18-19 percent. Biomass One is at about 17 percent.
 - ✓ The company's average fuels inventory is 3,000 chip trucks or about 84,000 green tons of fuel. This is equivalent to about nine weeks of production.
 - ✓ On average, 2,300 pounds of dry woody biomass generate one megawatt.
 - ✓ Biomass One's raw material costs are generally lower than similar costs at most biomass plants, because Biomass One does not have expenses related to in-woods harvesting/thinning.
 - ✓ A new 25-megawatt plant running strictly off forest residuals would need to pre-commercial thin about 12,500 acres/year.

The FBWG asked Gordon Draper a number of questions that helped the group better understand where key incentives are needed in promoting biomass utilization for power production, as well as who needs to receive the incentives. This discussion revolved around the following summation of the six main barriers Gordon shared with the group.

1. To build a plant in an air quality non-attainment area (like Medford) one would need to buy emission credits/offsets from someone (ability to buy and trade credits needs to be continued).
 2. Many areas are still listed as air non-attainment areas even though air quality goals have not been exceeded in years. This makes permitting more difficult in non-attainment areas.
 3. Bank financing for plants is problematic without some guarantees from an entity or someone with deep pockets.
 4. Need a guarantee with some substance behind it of a long-term supply (10 to 20 years suggested in WGA report).
 5. Address environmental concerns up front. Don't bring in eleventh-hour concerns after the review procedure is complete.
 6. Before all else, the cost to produce electrical power in a biomass plant and the price electrical utilities are willing to pay must pencil out. The group discussed federal PURPA rates, green Tags, RPS, federal staffing funding (endowment or access to fire funding for a proactive approach), credits etc.
4. David Van't Hof briefed the committee on the Western Governors' Association recent report, "Clean Energy, a Strong Economy and a Healthy Environment." The Governors will work collectively towards policy goals. On June 11, 2006, the Governors met in Arizona and adopted the recommendations of the report, along with

recommendations put forward in reports by task groups. The report can be found at www.westgov.org. David encouraged the group to "offer its ideas on what policies will drive this industry (biomass utilization) forward." Submitting these thoughts and ideas to the governor's office will need to take place soon to be effective in helping various groups considered what policy changes are needed. Other renewable groups are submitting their ideas.

Tad Mason then went over the 10 recommendations put forward by the Biomass Task Force Report that is a part of the Western Governor's Association's work. The 10 recommendations in the report are highlighted below:

1. Achieve tax parity among renewable technologies. WGA is supporting a Federal Production Tax credit with biomass receiving equal treatment with other renewables.
2. Strengthen federal land management policies to allow larger, longer restoration projects (20-year contracts).
3. Environmental benefits of biomass should be paid for by beneficiaries (multiple public benefits to biomass utilization vs. catastrophic fire).
4. Demonstrate government leadership by purchasing power/RECs from biomass projects and by supporting biomass research and development.
5. Recognize the value of firm capacity (24/7 nature of biomass power) in renewable purchase programs (RPS or otherwise).
6. Renewable energy credits should not include ancillary environmental benefits.
7. Establish a single definition for biomass.
8. Revise utility interconnection policies (recognizes rural areas help stabilize the grid).
9. Provide long-term certainty for biomass programs (examples: long-term power purchase contracts, fuel supply incentives, tax credits).
10. Consider fuel-based emissions when issuing air quality permits (considers avoided emissions of air pollutants from biomass plant fuel utilization).

The group was asked to look over these reports and consider what recommendations it want to affirm.

5. (Working Lunch discussion items):

- Oregon Forest Resources Institute Report & Tour – Mike Cloughesy highlighted the OFRI Biomass report entitled, "Biomass Energy and Biofuels from Oregon's Forests." To obtain a copy of the executive summary of the report or the full report, contact OFRI.
- Biofuels meeting June 17 had a great cross section of industry, legislative, business and state interests. Discussion of a commercial demonstration project for ethanol was examined.
 - Eric Stenehjem, works for Battelle, is Governor's Science Technology adviser, is going to do a study to look at a matrix of feedstocks and technologies (comprehensive look that will

be done by fall). Working with PNW labs, OSU and others to bring this together.

- Good discussion on grant opportunities.
 - Next biofuels meeting is scheduled Aug. 16 at ODF.
 - Glenn Montgomery briefed the group on:
 - State Biofuels committee action (last session's legislation)
 - Signature Research Proposal – bio-based products, looking for 5 to 10 million dollars.
 - OECD has funding for cities interested in renewable energy funding.
 - Adam Serchuk – Energy Trust doing feasibility studies during the winter for projects because of FTC current sunset.
 - Loren Kellogg – Doing three studies: a juniper harvesting/chipping study, fossil fuel use (budget) for biomass projects study, and a cut-to-length system doing one pass for saw logs, pulp wood and fuel wood to look at economics of biomass extraction. Info will be out in the fall on these studies.
 - Joe Misek (for Greg Miller) provided an OBC group update. Joe relayed that Oregon Business Council has had some high-level discussions with a few major power companies, and is encouraged by the discussions.
 - Lisa Schwartz – Provided the group an update on the Renewable Portfolio Standard (RPS) being worked on by the REWG. Still in work group (forming stage).
 - Mark Kendall gave a quick update on the Agricultural and Urban groups.
6. Timing of input from FBWG - After lunch there was a group discussion on the steps needed to provide timely input to the Legislature. The group agreed that to be effective it needs to make its thoughts known as soon as possible. If the FBWG firms up a report in November with recommendations, it will be necessary at the September meeting not only to host the federal supply panel, but also to allocate some time to hear from conveners on the nuggets of what is being recommended by each subcommittee, and begin to think through a format for the report. Joe and Mark committed to think this through and confer with the conveners.
7. Discussion on the fact that ODF doesn't have any biomass legislation in 2007. Somewhat related to timing, implementation of SB 1072, federal nature of much of the issue, and data gathering work the department is doing.
8. The individual FBWG subcommittees reported on their current progress (time limited). Group discussed the need to have the report.
- 1. Predictable Supply** – Joe passed out a revised matrix for Scott Aycock and highlighted changes.

2. **Shared Vision and Public Support** – Discussion by Mike Cloughesy
 - Web page up for FBWG check it out at <http://www.oregon.gov/ENERGY/RENEW/Biomass/OBCG-FBWG.shtml>
 - Communications Plan draft is also on the site.
 - Summer Tour to be held Aug.17 is one of the actions in the plan
3. **Economy and Market Development** - See lunch discussion on biofuels. Martin sees the need for investing real money (ex.: funding for positions for federal supply contracts). He challenged the group to look at the whole of the matrix and follow the road map.
4. **Extraction and Production Infrastructure Development** – Loren Kellogg. Need more information on the workforce issue. Need to connect with some of the innovative loggers and equipment manufacturers. In next 6 months to year will summarize where we are with that knowledge base.
5. **Research and Development** –OFRI study will provide some direction. And will be a matter of adding additional things we have heard about as possible projects. Need to coordinate with Russ and see what TNC is doing and engrafting that in - Sun Grant Center, etc. Thinking of putting out a matrix of what is going on and the needs. Research initiatives underway that this group should support.
6. **Supportive Regulatory Environment** – Lisa gave an update for the group. She provided her info for a matrix, others have yet to deliver. She shared what the PUC sees as barriers. Group has a start and Greg will be giving the group additional direction.

NEXT MEETING: Tuesday 26 September “Federal Panel” is next scheduled meeting.
Once again, here at ODF in the Tillamook Room from 9 to 3.