

Forest Biomass Work Group Meeting
September 15, 2009
ODF Salem, Tillamook Room
10:00 am to 3:00pm

Those in attendance:

1. Ron Saranich, USFS Region 6 Biomass Coordinator
2. Lindsey Babcock, BLM Biomass Coordinator
3. John Dunzer, Columbia Biopower
4. Loren Kellogg, OSU
5. John Pine, Biomass Specialist, Oregon Department of Forestry
6. Rolf Anderson, Bear Mountain Forest Products
7. Sven Anderson, Oregon Department of Energy
8. Matt Krumenauer, Senior Analyst, ODOE
9. Kyle Freres, Freres Lumber
10. Scott Leavengood, OSU Forest Engineering
11. Bill Kluting, Carpenters Industrial Council
12. Thad Roth, Energy Trust
13. Mike Dykzeul, OFIC
14. Joe Misek, Oregon Department of Forestry
15. Tim Moles, Joules Power
16. Martin Desmond, eDev
17. Liz Hamilton, Victoria, Australia Senior Biomass Officer
18. Phil Chang, Central Oregon Intergovernmental Council
19. Mark Brady, Business Oregon
20. Water Schutt, Oregon Department of Forestry
21. Darren Mahr, Enligna USA Inc.
22. Barbara Greenberg, TAP Energy Consultants
23. Ramsey Mc Phillips, TAP Energy Consultants
24. Cam Hamilton, McKinstry Co.
25. Jim Trost, Meteorology, ODF
26. Shilo Sundstrom, Resource Innovations, U of O
27. Marcus Kauffman, Resource Innovations, U of O
28. Rick Wagner, Oregon Department of Forestry
29. Cathy Clem, Oregon Department of Forestry

Note: Next Forest Biomass Work Group meetings are scheduled for November 17, 2009 and January 12th, 2010.

Welcome, introductions, agenda – Joe Misek had the morning speakers introduced to the group and welcomed folks and asked all others present to introduce themselves. The days agenda was briefly outlined for the group with an invite to all to come see Joe if other items needed to be discussed.

Current and Future Bioenergy Developments in Australia - Liz Hamilton, Victoria, Australia Senior Biomass Officer, spoke to the group about what is happening in Australia related to biomass, some of their policies and incentives, and a bit on the projects they have going. Having a bit of fun with the group, Liz assured us the “Senior” part of her title had to do with her age only!

Related to energy, Australia has a lot of coal and exports about 60% of it and utilizes the rest, but they are at work developing renewable energy resources. They are putting a lot of effort into solar. Liz came to the US because we have similar pricing and issues related to energy so she is very interested in solutions we are working on to address our issues.

Australia passed an act requiring 20% renewable energy by 2020. Like in the USA, carbon reduction is on everyone’s mind in Australia. Politically they have the greens, liberals (our conservatives), and labor party working to help implement this new goal. They have bio-breakfast with politicians as a way to keep political reps informed as they are constantly changing. Like the US, fire is a big issue and driver-related to carbon emissions.

As far as incentives, bioenergy, carbon capture and storage are current targets nationally and in the various states. Hydro, gas (from sugar cane production waste), and landfill gas are big renewables in Australia. Australia has not been hit quite as hard as America with the downturn in the economy, and we learned many energy projects are still going forward there. They are working on all the same things we are with second generation biofuels, algae, etc. They have a 4 billion dollar federal schools energy upgrade also going on. Firewood is big in Australia, as is emphasis for clean stoves.

In answering questions for the group Liz articulated that their Clean Energy Council is probably one of the most forward groups in Australia in addressing bioenergy comprehensively (check out their website): <http://cleanenergycouncil.org.au/cec/home.html> . Like here in the US, she believes education efforts with the general public is key to helping them understand the benefits of the utilization of wood over other choices.

Joules Power – Pyromex – ultra-high temperature gasification – Tim Moles shared a power point with the group and is seeking to bring the above technology to Oregon. A you-tube video was shared with the group to highlight the process he is now working with. Tim explained it was a long road of trying other processes before he got here, but he has learned a lot along the way. Tim met with the folks from Nexterra, Capstone Turbine, and folks from GE.

Tim shared a video first with the group called Inentec and stated they have a good process (plasma) that is best used for hospital waste disposal to produce power where values of waste conversion are higher.

<http://www.inentec.com/videos.html>

It was GE that pointed Tim towards the Pyromex system, and now Tim plans to be a distributor for this system. One unit utilizes 25 ton per day and one module (4 units) does 100 ton per day. With matching GE generators one unit can run 1.8 mw per hour from wood. It takes about .3 mw to run the system so 1.5 mw net per hour. System would use about 4-6 chip trucks a day. A chip van has about 3 ton in it. The trick is getting the gasses to above 2000 degrees through a use of an inductive coil process. It uses about 2/3 less energy than the plasma system. It also produces a very clean syngas. A firm named Woodland has a project in Canada and one in New York funded through USDOE using this process. This winter Tim was aiming to get 30 gal/BDT of ethanol in his work and this system is getting 170 to 200 gal./BDT of ethanol with 3rd party validation. Tim states we don't have one of these in the US now, just in Europe. Europe is working more with sludge and waste treatment, but we have great opportunity with woody biomass in Oregon. Tim thinks this is about 18 months out where Woodland will have a process to take this wood in the field and convert it to syngas for trucking it for ethanol production. The numbers above are aimed at wood, you can also run tires (almost double the energy production of wood). You can get about 30 different products (hydrogen, butenol, synthetic diesel, etc) from this process depending on what your markets are. Tim also mentioned that USDOE is involved with Department of Defense in California with a clean cities grant, and will be using this system to produce the hydrogen for cars on a military base. The following video was shared:

<http://www.youtube.com/watch?v=woH0s1cZIQg>

Two questions for Tim's follow-up to the group:

- All this stuff has to go somewhere, where do the heavy metals etc. go? Tim believed they are handled in the scrubbers, but he promised to get back to us regarding emissions on the system (asked by Kyle Freres).
- How do you handle heat reduction? (asked by Cam Hamilton) Tim promised to get back to the group on this question.

Tim said he believes we are 80% there with this technology and believes we will get there. He encouraged the group to continue to define sustainable use of biomass as it will be very important in the future.

ARRA and Oregon stimulus updates – Ron Saranich, Lindsey Babcock, John Pine

- Lindsey shared that the BLM funds work different than the USFS funds. The BLM still has the 8 biomass projects in Oregon. Most are untracked, LaPine is being implemented, and the others are in the signing stage. These account for about \$8.5 million in land management work. There is one in Roseburg that may also involve removal from private land due to the checkerboard ownership.
 - Ron shared that 5 projects totaling \$15.3 million dollars (out of 50 million total nationally so Oregon did well). One is being implemented out of NE Washington (\$4 million energy park). Other projects include \$5 million Warms Springs biomass effort; \$5 million for pellet plant/processed wood in Grant/Harney county – RFP closed the other day with 5 respondents. Oregon Business is coordinating this grant. ODF has two grants; Douglas Co. Small Woodlands project; and Roseburg Forest Products – Woody Biomass for Energy.

- Woody Biomass Utilization Grants (\$250,000 each)
 - T2 out of Central Oregon
 - Boggin Brothers out of NE Washington
 - Maubeni Power (may now go to who purchases this project in Lakeview)

Next round of Woody Biomass Grants (see attachment with this email) - Aimed at increasing use of woody biomass while reducing cost of hazardous fuels reduction. This grant has been used for equipment purchases in the past.

- Several changes to program
 - More money anticipated (was \$4 million, may be up to \$10 million)
 - This year private lands will also be eligible
 - Now about once every other year that you can apply
- Please contact Ron Saranich or Larry Swan before you submit your application so he can review it, as it will improve your chances of having a complete application. Or if you have questions on the front end they are also willing to field questions.
- Applications due November 20th, 2009

LUNCH – break for an hour

Group Sharing - All

- Bill Kluting asked if anyone knew the status of federal lands and the definition of biomass? Last someone heard was that there are 4 versions out, they were looking for common themes and there is still controversy.
- Marcus Kauffman – Oregon Way Advisory Council set up by the Governor has developed strategic plan for reinvestment and recovery. This included a signature biomass cluster. Seven projects were selected, many are related to wood biomass. Recipients get gold star from Governor; letters of support for their projects for other funding they may chase. Marcus said they are looking into possibility of getting stimulus dollars for the projects.
- Biomass Bailer demonstrations are slated for September 23rd in the Sisters / Camp Sherman area. See Cindy Glick or John Pine if interested.
- John Pine – informed the group about the well attended Pyrolysis workshop. The machine unfortunately did not work well for several of the demonstrations. Overall folks were very appreciative of the efforts OFRI and others went to showcase this along with FBWG. John also shared about a Western forestry workshop in December – will be biomass handling 101; financial, transportation systems, common pitfalls, and how to succeed. Also Western Governors had a recent meeting John attended to share among the states on what successes folks are having.
- “Thermal Discussion” - John is talking with folks in the Governor’s office to see if a policy is or should be in place to push public buildings to utilize renewable energy (with woody biomass considered in that mix). Marcus Kaufman – said we need a strategy to make the Thermal thing work in Oregon to strategize what steps we need to take to make an impact. John shared that folks can go to Sustainability.Oregon.gov website to see what DAS has and that they are asking for input.

- Mike Dykzeul: What is the charge of this group? Where is the advocacy of this group, if in agreement, where is the responsibility in the group? Is there tasking? SB1072 history was given, along with utilization of the REWG and FFAC to push recommendations.
- Marcus a different model – use the brain trust of the group to form a position and then have those that can lobby work the items.
- Lindsey is pushing within BLM to utilize wood heat in their buildings. There is some excitement in BLM to push this forward.
- Marcus – so we have the state efforts, some federal efforts, have local efforts. However it still has no coordinated strategy, and we have no legislative champion. We need to tie these together. We need to position in this group to move beyond just sharing information.
- Phil Chang - What can this group do to elevate the biomass thermal? Without information to get a listing of boilers for low hanging fruit. We need a good state database of boilers to locate the high cost inefficient boilers to provide a roadmap. Thermal group was asked if they wanted to take this on. Cam Hamilton offered to take this on as he knows the state boiler master to clean up the data.
- Bill Kluting – pointed out that 90% of our trouble is because we have been waiting 20 years on a forest management plan that works. Since 1995 - 2007 we have lost 50,000 timber jobs. Three counties almost went bankrupt, if not for stimulus and O&C funding (one time); 240,000 unemployed, one in six on food stamps and this is the direction its been going. He has been fighting this for 20 years. Each of our congressional delegates has a bill, each with some good parts, but they need to come together. This is what Bill is focusing on. These grants, temporary jobs are not going to work long term.
- Rick Wagner – shared with the group he is a resource to any thinking of getting ready to heat schools with biomass. Lots of lessons learned in the Enterprise school project to pass on to others.
- Joe Misek – attended a conference call regarding a national Biorefinery model that is now developed with folks working to get good data and input from the states. Joe asked for any people that are interested in this to contact him.

Legislative Roundup – Joe passed out a quick summary from the 2009 session that he put together (attached to email). When ODOE puts out a more complete summary he will pass it along to the group.

Group Charter – Joe passed out a revised draft of the charter and asked the group to look at the Milestones and Deliverables that this group could address. Joe shared that we have a diverse group with some very involved in the policy side, some want to push biofuels, others want to advance thermal issues. Joe encouraged the group to put down the things they want to work on with this group stated as a deliverable. Subgroup leaders need to work with Joe and Chad to shape this direction.

Web Site Needs Updating – A quick look at ODF’s and ODOE’s sites shows a need to update the sites so folks can see draft agenda’s for next meetings, planned meeting dates, minutes, etc.. Joe will coordinate with ODOE to see what improvements can be made.

Washington State Update: Ron Saranich updated the group on a trip in June that Ron, Lindsey, Joe and John took to meet with Washington biomass folks. Good information was exchanged and we will be meeting again. We discovered they don’t have a separate Department of Energy , so it is a much different structure in Washington. Their focus is on biofuels given the carbon footprint of the state. Joe will share some report information shared at the meeting (attached to email). Washington has a state house bill that is an energy initiative to have some pilot projects. Ron has been asked to review the 30 projects and to choose one from the east side and one from the west side. Ron said the projects go from fuels for schools type projects, to several large combined power and heat projects; to loggers wanting to be considered for any work. Ron believes DNR will make final selection.

Adjourn at 3:00pm