

RENEWABLE RESOURCE ADVISORY COUNCIL
Notes from meeting on August 16, 2006.

Attending from the Council:

John Reynolds, UO & Energy Trust Board
Alan Meyer, Weyerhaeuser & Energy Trust Board
Jeff King, NW Power and Conservation Council
Doug Boleyn, Cascade Solar Consulting
Troy Gagliano, RNP
Lisa Schwartz, OPUC
Thor Hinckley, PGE
Kyle Davis, PacifiCorp

Others attending:

Dave Tooze, City of Portland Office
of Sustainable Development (OSD)
Seth Hooper, Weyerhaeuser
Marv Luwallen, Weyerhaeuser
Michael Early, Industrial Customers of
Northwest Utilities
Jeremiah Baumann, OSPIRG

Attending from the Trust:

Elizabeth Giles
Kacia Brockman
Alan Cowan
Adam Serchuk
Betsy Kauffman
Phillip Kelsven
John Volkman
Dave McClelland

1. Welcome and Introductions

Adam Serchuk convened the meeting at 9:35 am. Thor Hinckley asked that Joe Barra be added as an attendee representing PGE in the June notes.

2. Utility Scale and Biomass Updates

In the Utility Scale program, staff continues to work with PGE on a project through the Master Agreement. Work also continues with Pacific Power on two wind projects that came via their Master Agreement. At this time, Energy Trust is actively negotiating with Pacific Power and has reached agreement on several conditions, though agreement has not been reached on the disposition of the green tags. Energy Trust hopes to bring something to the Board in late August. Staff is confident there will be closure on the project by the next RAC meeting.

In Biopower, Warm Springs has asked that Energy Trust cease negotiations with them. To date, they have been unable to reach a Power Purchase Agreement (PPA) with a utility and have been informed that their vendor can no longer guarantee the project will be operational by the expiration of the Production Tax Credit (PTC). The Tribe expects to continue working on the project, in order to be ready to go if and when Congress extends the PTC. Staff believes this is the best biomass project in Oregon at the moment.

3. Eligible Biomass Fuels and Emissions

General Council for Energy Trust has given guidance on what staff believes constitutes eligible biomass. The majority of RAC members agree that nonsolid biomass materials such as biodiesel and spent pulping liquor are legitimate renewable fuels. Acknowledging that a minority of the

RAC disagrees, staff will follow the majority and propose a policy clarification to the Board at its October meeting.

Troy asked if the letter expressing RNP's position has been forwarded to the Board, or whether a separate document should be written. Adam replied that Energy Trust would be happy to include a letter in the Board packet. The meeting is also public, and RNP is free to attend. John Reynolds encouraged Troy to write a letter to the Board.

Jeremiah asked if this is an issue that OPUC should vote on. Lisa said if there is a need they can open a rulemaking to resolve the legal issue. However, OPUC staff prefers to reach resolution by another manner, if appropriate. The general consensus is that it is appropriate to treat nonsolid biomass, including spent pulping liquor, as eligible biomass.

Adam continued, explaining that at previous RAC meeting discussions, members asked that Energy Trust investigate the law's reference to emissions and toxicity associated with biomass generally. Based on our legal department's internal opinion, staff believes that the Legislature likely did not intend Energy Trust to erect a de facto regulatory structure in parallel to state and federal agencies. Thus, a project holding all appropriate state permits is eligible to request funding, although Energy Trust may review air emission or toxicity issues not addressed by state or federal regulators.

Staff prepared a briefing paper outlining three ways that Energy Trust might proceed on this issue. First is the status quo: to defer to state regulatory agencies, and consider projects holding necessary permits eligible to receive public purpose funding, unless a project raises issues not anticipated by State policy. The second proposal is to adopt an existing emission and toxicity standard. The paper discusses the Green-e national standard and Bonneville Environmental Foundation (BEF) internal standard (see "Briefing Paper: Eligible biomass fuels and biomass air emissions" for standard details). The third option is to define an independent Energy Trust standard for air emissions. This would entail a prolonged investigation with a consultant that addresses the statement of work outlined in Attachment A of the briefing paper.

Marv felt that one thing missing from this briefing was reference to Oregon's hazardous air pollutant (HAP) program, which goes beyond the national standard. There are already rigorous regulatory measures in place to address project emissions and toxicity. The HAP program would address any project that extends beyond the standard, requiring special assessment and modeling. Adam asked if these standards are specific for biomass. Kyle replied that there are industry-specific standards. The EPA will be creating national standards for specific industries, but as they have yet to do this, the State has stepped in to fill the gap.

Adam explained that as issues stand today, he would recommend to the Board that Energy Trust retain the status quo, and consider a biomass project eligible if it had all relevant permits level, with additional language on toxicity of treated wood. It would be difficult, controversial and expensive for Energy Trust to act as an independent regulatory body, and the organization does not have the resources or qualifications to act as this at present.

Kyle asked if anyone is advocating that treated wood be used as a renewable resource fuel. Excluding treated woods is not contrary to SB 1149. Language on toxic treated woods would be in keeping with the intent of the bill and EPA. Alan Meyer said that the emissions issue is a red herring; facilities dealing with black liquor will not generate additional emissions if they become an electricity generator. It will upgrade the boiler and, if anything, reduce on-site emissions. Hog-fuels sites are more likely to be effected by these standards than pulping liquor. Adam replied that the emissions standards would apply to all biomass projects, not just spent

pulping liquor. Though the discussion of possible standards arose during the conversations on black liquor, it has grown into a broader topic.

Troy asked Marv for his opinion on Green-e as compared to State standards. Marv replied that they are comparable, parallel programs. The additional standards in Green-e reference wood coated with paints and plastics, but this would not be relevant to an industrial process.

Jeremiah asked if the Bonneville standards differ from the New Source Review at the State level. Kyle said that as long as a project is in compliance with the HAP standards, Energy Trust should not need unique definitions. Perhaps even special language about treated woods is unnecessary since permits from DEQ are required to burn such products. Michael E. agreed with Kyle, saying he didn't see any reason for the ETO to go beyond where the State goes. The last position ETO wants to be in is to have some above and beyond requirements that makes a project that meets state requirements but not ETOs.

Adam said that lacking any concerns from RAC members about the recommendation set forward, he will proceed with this to the Board. He also noted for the RAC a related issue, waste, referenced in SB 1149. ETO should have a policy about what qualifies as eligible waste. It would be difficult to define an exclusionary definition that lists what is acceptable and what is not, since it is a field with largely unknown possibilities. Better would be to determine guiding principles that would allow for decisions. We should look forward to discussing this issue of waste later in the year.

4. Community Wind RFP Update

Alan updated the RAC on the status of the Community Wind RFP. The shortlist included the China Hollow project in Sherman County, Mar-Lu Wind Farm in Gilliam County, Sherman County Wind Farm in Sherman County, and Threemile Canyon in Morrow County. Since the last RAC meeting, Energy Trust has proceeded with negotiations on these projects.

Threemile Canyon just received a Notice of Presumed Hazard from the FAA, shutting down the project. The project is in the Boardman area, which has naval operations and restricted airspace. The developer is currently investigating moving the project to a new location on the Threemile Canyon Farms property that is outside the restricted area, but still in naval operations space.

Negotiations are currently underway with the Mar-Lu project. Energy Trust has helped the developer locate turbines, and they are currently negotiating the final price, payment schedule and delivery. Energy Trust is preparing to fund a feasibility study to complete project development. The feasibility study will cover the utility interconnection study costs and will be applied to the above-market costs

An initial offer has been made to the Sherman County Wind Farmer project, and Energy Trust is awaiting a response. This will be contingent on several structural changes to the project to make it financially feasible.

Lessons Learned

- Size matters: Projects in the 5 MW range have lower above market costs than 10 MW projects. The State's Business Energy Tax Credit (BETC) is capped at \$10 million. A 5 MW comes in just under that cap and can therefore apply the credit to the entire capital costs of a project. Larger projects overshoot the cap.

- Utility Interconnection & Transmission: Costs vary greatly depending upon the required interconnection. Projects requiring a substation and transmission fees cost substantially more than smaller projects can take advantage of distribution level interconnection directly to PacifiCorp or PGE. Between the BETC cap and interconnection fees, the above-market costs increase dramatically with size.
- Project Development: Small developers have a difficult time coming up with capital upfront, causing projects to stall. The USDA Value-Added Production Grants have been of great assistance, bringing \$35,000- \$55,000 to the projects.

Alan Meyers asked if these projects will all be up and running by end of 2007. How likely is it that they will get the equipment delivered and installed before the expiration of the PTC? Alan replied that the equipment delivery date for most of the projects is the end of the summer, and construction timelines are very short. Michael Early asked if the expectation is that the projects will sell to their local utilities. Alan explained that at the distribution level, the electricity goes to the local utility, namely Pacific Power. At the larger scale, it connects to Bonneville and, via a PPA, to PGE.

Michael asked if the energy output per turbine is comparable to utility scale projects. Alan replied that the projects are being installed in the same locations as the large-scale farms and thus have very comparable output.

Kyle asked if there is a working date to consider a project non-viable if delivery has not occurred. Alan replied that Energy Trust plans to have negotiations completed this year. Adam added that Energy Trust typically builds benchmarks that must be met at certain dates into contracts.

Michael asked if the offer to Sherman County is public. Alan replied that it is not yet public. Mar-Lu will go before the board in October, as may Sherman County.

Jeff King asked if these projects are being led by developers with experience, or one-off ranchers and farmers. Alan replied that in all the projects, there is at least one small developer involved who has experience in the wind industry.

Kyle asked which project is being developed with John Deere. Alan replied it was Threemile Canyon. Kyle said that John Deere leases turbines in the same way they would a tractor, and asked if John Deere had other interests in the Northwest. Alan replied that John Deere has expressed interest in the Northwest, though only the one project came in with them through the RFP. Kyle said that he had received a copy of the John Deere marketing plan presentation, and recommended presenting this to the RAC at some date.

5. Project Criteria for Off-Site Generation Serving Retail Customers

Based on the discussion at the last RAC, staff streamlined and slightly revised the criteria for screening and qualifying renewable projects in which the generator is not on the retail customer's site. In these off-site projects, the customers would buy the renewable energy from specific projects through a contract with electricity service suppliers (ESS), which represent an alternative to PGE or Pacific Power. The criteria in this proposal would not affect existing program criteria and policies for on-site renewable projects and those selling renewable energy to Pacific Power PGE. Staff is seeking final input from the RAC before going to the Board.

The first criterion has been changed to allow more flexibility in the term of an energy user's contract with an ESS. The original criteria said the contract had to be at least 15 years. This makes it unlikely that anyone would use the ESS route. Given the policy's intent, of allowing experimentation with a new model for stimulating renewable energy development, more flexibility seems appropriate. However, staff believes that if the applicant has a contract with the ESS for a term that is shorter than the expected life of the project, the proposed funding from Energy Trust should be pro rated.

The majority of RAC members supported criterion six, requiring the project to be in Oregon. This is parallel to the on-site criteria. Some RAC members argued for a more open Oregon preference with a clear standard for accepting an out of state project, but Staff feels that projects from out of Oregon through an ESS pose irresolvable administrative problems.

Staff proposes the following revised criteria to be advanced for board approval:

1. Owned or controlled by the applicant or contractually committed to serve the applicant.
2. Considered a long-term resource, typically with an expected life of at least 15 years as consistent with the expected life for a similar project funded through other Energy Trust programs.
3. Priced at customary and usual costs for the installation or able to show significant demonstration value for higher than normal costs.
4. Requiring Energy Trust support as defined through the above-market policies and methodologies for on-site generation. If the applicant's contract with the ESS was less than the life of the project, the above market costs would be proportionately reduced.
5. Contractually able to comply with Energy Trust's green-tag policies. Customers retain green tags in proportion to their share of funding for above-market costs.
6. A completely new project in Oregon, or a new addition or upgrade to an existing project in Oregon that provides expanded generation.
7. Capable of being operated and maintained by the owner or for them for the life of the contract.
8. Customer contributes at least 20% of the above-market costs, if they do not have an equity stake in the off-site project.
9. The Energy Trust contribution is capped at the lower of the result of the above-market analysis or 10% above what the Energy Trust has paid or would reasonably expect to pay for a comparable project funded through other Energy Trust programs.
10. Within the additional budget, technical, process and funding limits established for each program, applications for off-site projects may be considered within each program. The review and any subsequent approval of such would follow the Energy Trust's standard processes.

Kyle asked who the applicant is in these criteria, the retail customer or the ESS. It is his sense that the ESS should be applying for the funds, as opposed to the end-use customer. Adam replied that it has been left open intentionally, and could be either party. Kyle commented that should there be a RPS, the identity of the applicant may become significant. Dave Tooze said he would advocate for maximum flexibility, considering that this could exclude future projects in which the customer preferred to apply.

Michael urged the importance of not creating an incentive for either the ESS or the customer to apply. The above-market cost assessment should be the same for either applicant. Thor agreed with Kyle and Michael, saying that as long as the evaluation for the subsidy is level, PGE is

neutral about who applies. Michael also notes that the policy should also be neutral as to whether an energy user goes to an ESS or stays with a utility.

Adam added that the project funding would be capped at the lower of above-market cost or 10% above what Energy Trust would pay for a comparable project. Alan Meyer asked if a customer purchased green power from their utility, would they also be able to apply. Adam replied no, Energy Trust does not plan to subsidize that option. Alan noted that this seemed to violate the neutrality principle, by giving people an incentive to leave the utility. Alan also asked about the purpose of the 10%, questioning why the project would not be treated the same as any other. Adam replied that Energy Trust recognizes that there is a value to encouraging ESS projects in order to explore the viability of this path for increasing renewable energy development,. To that end, staff will consider projects that may be slightly more expensive than a comparable project.

Lisa asked why the typical life of a project of 15 years is used in criterion two as opposed to the contract term, which may be a more appropriate value at 5 or 10 years. Adam replied that Energy Trust would assess above-market cost on the real lifetime of the project, and base the incentive on the fraction of project lifetime represented by the project, correcting for the tendency of projects to be more expensive early in their lives.

Lisa also asked for clarification of the meaning of "off-site projects may be considered within each program" in criterion ten, and whether this refers to programs of differing technology, such as wind versus solar, or scale, such as utility versus non-utility. Adam replied that projects are to be compared to others within their program discipline; wind with wind, biomass with biomass, etc.

Michael asked what would constitute a comparable project in criterion nine. Adam replied that this would be a similar project not delivered via an ESS.

Dave drew attention to the last paragraph of the brief, in particular, that "The City's issue may be in the Energy Trust' green tag policy and should be dealt with in the review of that policy." Dave contended that criteria 1, 2, 5, 8 and 9 effectively prevent the City of Portland's project from receiving Energy Trust funding. As the current green tag policy stands, it does not recognize the desire of the customer to be green. If a customer cannot claim the greenness of their project, why invest directly in a renewable energy source when the utility can provide you with the option to purchase green energy for less hassle and cost? The City of Portland wants to acquire the green tags to retire them. There are no plans to sell them at any point. However, they need the financial assistance of Energy Trust to make their goal affordable. The current criteria, combined with the green tag policy, preclude the City from coming to an agreement with the Energy Trust. The RAC and the Board should keep in mind that they ultimately report to the customer. With customer initiated projects, you must value the customer.

Adam said that the green tag policy requires that Energy Trust takes the green tags in proportion to the above-market funding provided. Adam asked if the City has trouble with the criteria in addition to the green tag policy, or primarily the green tag policy. Dave replied that both the criteria and the policy presented insurmountable barriers as they are currently written.

Alan Meyer said that the green tag policy should not be a concern; Energy Trust and the City should be able to jointly retire the tags to the benefit of both parties. The concern is that the City might sell them at a future date, which David affirms is not the City's intent. Lisa responded that if there was an RPS, those tags would not be available to the customers of the displaced utility to meet requirements.

Alan Meyer said if an ESS contributes to the Public Purpose Fund, it should have access to the funding like a standard utility. Dave said he did not understand why the green tags the City retires could not count toward an RPS the same way Energy Trust's tags might count toward PGE and Pacific Power's requirements.

Lisa agreed with Dave's comment, explaining that to the extent that the City of Portland would be an ESS customer, and there is an RPS, the green tags of the city would count toward the ESS' requirement. All of this will ultimately be contingent on how the RPS legislation, if any, is written.

Adam said that there are two important but separate issues being discussed: the green tag policy, and the ESS criteria. He asked specifically whether RAC members had concerns about the ESS proposal, aside from the concerns alluded to by the City of Portland. Going forward on the ESS criteria, the conversation will likely be between Peter West and the City. On the issue of Energy Trust's green tag policy, Dave should speak directly to the Board. John Reynolds recommended that the City write a letter to the Board specifically addressing their concerns for inclusion in the next Board packet.

Kyle asked if the ESS criteria could be separated by relevance to applicant, with one set of criteria for an ESS applicant, and another for a customer applicant. While it is understandable that a customer may receive special consideration, he is unclear why an ESS would not be treated the same as a utility. Adam commented that to his knowledge, PGE has approximately 50 aMW of ESS customers; a small portion of the utility's total customer base. Kyle replied that it is the limited resources, rather than the scale of the projects, that matters.

Lisa asked for clarification of criterion eight and how it differs from requirements for other projects. Adam replied that in most ESS cases there will not be an equity stake. Lisa pointed out that utilities have used PPAs in the past, in which the utility had no equity investment, and asked why we allowed the utilities access to funding without having an equity stake in the project, but required it of others. Doug Boleyn agreed, and added that he was not sure that the ESS criteria were ready. Lisa agreed with Doug, that the criteria may need more work, though it appears that changing the criteria may not change the outlook for the City of Portland's project at this point.

6. Public Comments

Adam adjourned the meeting at 11:40 pm.