DRAFT

EnergyTrust of Oregon, Inc.

RENEWABLE RESOURCE ADVISORY COUNCIL
Notes from meeting on September 21, 2005

Attending:
Angus Duncan, BEF
Doug Boleyn, Cascade Solar Consulting
Frank Vignola, UO SRML
Jeff King, NPCC
John Reynolds, UO and
Justin Klure, ODOE
Virinder Singh, PacifiCorp

From the Trust:
Adam Serchuk
Alan Cowan
Anna Parry
Jonathan Holz
Kacia Brockman
Maureen Quaid
Peter West

Others attending:
Christopher Dymond, ODOE

1. **Introductions**
Peter convened the meeting at 9:35 a.m. There were no changes recommended to the August meeting notes.

2. **Program Updates**

Utility Scale

Peter reviewed progress on utility scale opportunities. He has been making progress with PGE on a master agreement to support future projects and it is close to being completed. He also reported sad news that the Apeasay Orchards turbine has been shut off and is being decommissioned. The orchard changed hands and the new owner is not interested in operating the turbine.

Biopower

Adam reported that the Biopower RFP is proceeding as scheduled. Of the 24 initial proposals, 16 were invited to submit full applications. The goals were 1-3 aMW, but due to the strong response, the program funding has been increased to $5.3 million, and $900,000 per aMW is possible based on applicants' preliminary estimates of total project costs. We are working through issues related to the use of black liquor as a renewable resource, and have asked our legal counsel for an opinion. Adam expects to recommend another RFP in 2006, with reduced funds.

Frank asked if it was a board decision to use unexpended funds committed to the Dry Creek Landfill project, which fell through, to support the RFP. The board passed a resolution to repurpose those funds at the September 7 board meeting. Jeff asked about the costs cited, which are the above market costs, not the total project costs. Our costs are estimated at $900,000 - $1.2 million per aMW. Jeff asked about the range of types of projects. We have published on the website the list of applicants invited to Round Two. There were proposals representing each type of resource projected in the resource assessment that was presented to the RAC at the April meeting.

Christopher asked about project costs and project diversity. Adam said that cost will be a factor in the decision about which projects to support and at what level, and there will be regional diversity because of the required utility splits. Frank asked if the RAC would be involved in making the decisions. Adam said the RAC would not be directly involved in the decision. John asked if members might be involved in the process. Adam said that we have 2 staff and 2 outside technical consultants on the review committee, and all projects will go to the board for approval.

Open Solicitation

Alan reviewed Open Solicitation projects. The Sunderland Yards solar and wind project is complete. Other approved projects are OHSU Block 25 PV system, the Griffin wind turbine, the Hood River Farmers' Irrigation project, and Stoller Vinyards' PV system.

The Coral Sales 208 kW PV system in Milwaukie is currently under review. We are proceeding with the Klamath Falls 20 kW PV demonstration, which garnered a USDA grant - the only one awarded in Oregon. We are also planning a 60 kW PV system at the Oregon Zoo.

We have been supporting applications for USDA value added grants, and have funded anemometers for interested parties. We are currently developing a community wind guidebook, being written by NWSEED, and we will be presenting at the next Oregon Wind Working Group meeting.

Product availability is currently a problem - typically 1.5 MW turbines are shipped in clusters up to 10 MW. We are investigating strategies to purchase turbines, such as tacking on an order to a utility-scale project or forming a coop. Angus said it is a very difficult seller's market until 2007. Even the big players are not getting their orders filled. Peter said we are building an infrastructure and a pipeline, and laying the groundwork for 2007.

In small wind, market barriers include turbine ratings and reliability that are not standardized, although AWEA and other groups are working to establish a certification organization. Zoning ordinances create additional costs when variances are required. Nationally, the cost of small turbines varies by up to 50% due to zoning rules and installer technical knowledge.

Solar Electric

Kacia reviewed solar program activities. We have been reviewing our incentives in response to the new federal tax credits. Two letters were prepared to inform people about the changes, one to potential customers and one to trade allies. We lowered our residential incentives from $3 to $2 per watt. This will stretch Energy Trust dollars and still lead to a higher benefit package for consumers starting in January 2006, although it will require higher out of pocket costs for system buyers.

We have not announced a new incentive level for commercial systems. There is no cap on the commercial federal tax credit, while there is a cap on residential systems. It's likely that we will move to a production-based incentive for commercial systems. There is an unresolved issue on whether our incentives influence the basis for the federal tax credit. Angus would like to see the legal and tax opinions we have received from internal and outside counsel.

John said that our interpretation is a liberal optimistic interpretation of the new law. Kacia has asked for an opinion on the timing of the paying for installation, because some systems could be installed this year and be placed into service in 2006. Christopher said that an ODOE analyst came to a similar conclusion that the state tax credit does not reduce the federal tax credit. And, if there is a subsidized financing, that wipes out the federal incentive.

Christopher recommended a production-based incentive, which will increase the perceived value of the production. Other states are beginning to use production-based incentives. Peter said that we will consider this, and it would be helpful for ODOE to document where this is working, and review where upfront costs are a major barrier. And the next group of potential customers (market majority) will see upfront cost as an even bigger barrier. Our goal is a transformed market, but it is our responsibility to make decisions carefully, and get industry buy in, and to know how we will overcome the first cost barrier.

Christopher is thinking about an exit strategy for subsidies. We have seen a 5-fold increase in support to do PV, although first cost is still a barrier. But he proposed that we need to focus on a full out transition, and if we focus on up front cash, we diminish the sense of future value for systems. Up front cash incentives are more popular among installers, and the industry needs an informed debate, including OSEIA, and a plan for transforming the industry. Peter said that we are a big player in the current market and our exit strategy will be based on different kind of involvement with the solar industry.

Christopher agreed that a production-based incentive probably would not have worked in the first three years of the program, but this is a good time to think about the transition because of the new resources available from state and federal tax credits. He will come back to the RAC with more data. Peter said there have been 15 years of on-again-off-again tax credits for wind, and there is uncertainty about the solar tax credits. Frank said that production credits are a good idea, but not as a complete package, and we should think about the complete package for the program. Kacia said our projections are on track for kWh goals, but we may see a lull because of the changes due to take effect in January.

The residential green tag policy letter has gone out to customers. Three Phases is involved in purchasing the tags for their residential green power customers. We have also found that contractor bonuses have been paid for most projects, since they exceeded the limit to trigger the bonuses. The solar tour is happening in different communities around the state this month and we have copies of the tour magazine. We also have a new solar brochure, which was also made available to the group.

Information request cards were provided to the homes participating in the tour, and we are creating a pool of direct mail candidates. Christopher was a host on the tour and said that the most common question he got from people is how do I find a contractor, and how do I become a contractor. John talked about passive solar, and Christopher said that the passive solar homes got more attention on the tour.

3. Preliminary Draft 2006-07 Budgets

Peter presented a preliminary summary of the 2006-07 budget. Revenues are expected to be $10.6 million for renewable resources, using conservative assumptions on rates and weather. All the surpluses will be gone by 2008 and we will have a fully allocated budget.

There is a large carryover for 2006 because we did not do the Klondike project for PGE, but with the new master agreement, all those funds are projected to be spent and there will be no carryover for 2007.

By 2008, there will be no money reserved for the unexpected, and how much we have in reserves will depend on a project to two falling out to cover the shortfall. For utility scale projects in Pacific Power territory, we will need at least $1.2 million more to allow for a project. The proposed budget will absorb all of the 2007 surplus and we will find another $200,000 in savings from program services. Alternatively, we could end OSP in Pacific Power territory or reduce other programs by $200,000.

Program expenses will be 66% utility scale in 2006 due to the 2004-05 carryover, but starting in 2007, our portfolio will focus on biopower, solar and wind, with no resource getting more than 50% of the total budget. Angus suggested that the community wind budget may not be spent, so we should think about how to re-program those dollars. Biopower funding increases over the next two years are due to the better than expected response to the RFP and the possible expansion of biopower projects into dairies.

Christopher asked about natural gas prices and how that will affect above market costs for biopower projects, since some of these projects may not have any. Adam said a project with no above market costs would not receive our support. Nor will we pay for really expensive projects. Natural gas prices and new PURPA rates will affect the market, but we will continue to support projects that fall in the middle.

Christopher also asked about what would happen to solar program funding that isn't spent in a fiscal year - will that money be earmarked for solar in the next year. Peter said we roll the carryover into a general carryover fund and it can be applied to the next best opportunity which may include solar projects, but not necessarily.

Frank said a two year budget cycle is a good change. John wondered if the OSP still has value to us, and he said he hopes that we will maintain that program. In looking at PGE territory expenditures, utility scale accounts for 64% of the two year budget. There is less opportunity for solar and wind in this service territory, but new biopower applications look promising.

Frank asked why more has been allocated for community wind in PGE service territory, where there are transmission issues. Peter said the goals of the community wind program are to develop an alternative way to support wind development in the future, and it may be easier for PGE to tap into the wind resource through smaller projects like community wind.

In Pacific Power territory, there is not enough money to support all the opportunities. OSP and biopower projects have fared better in Pacific Power's area. It is possible that some projects may secure PPAs to deliver into PGE territory from Pacific Power. Solar programs are in steady state. Lower community wind costs assume lower exchange and transmission costs compared to PGE territory; it also reflects the completion of the Sherman County project.

Christopher said there is actually an 8% decrease in solar funding over the next two years. Peter said that revenues are expected to go down, and we also assumed that new tax credits will keep the market stimulated, and also we hope that equipment costs will come down in 2007. We front-loaded solar when we were rolling out the suite of renewable programs. So far this year, expenditures have been running lower than budget projections.

Virinder said that the RAC members need to look at the budget in totality, and over the time frame of the budget, the Energy Trust is rolling out a new biopower and community wind programs. Each group of stakeholders will hopefully look at the overall picture and agree with the general direction, and support a range of projects.

Peter said the spending for solar is holding fairly steady. Frank asked if that allocation includes the OSP solar projects - it has not, and larger solar projects have done well in OSP. John asked about newer technologies like geothermal and wave power. Peter said geothermal will be handled through the utility scale program, or in the case of a small project, through OSP. Virinder said that Utah and Wyoming produced some strong bids in the last IRP, but no Oregon projects looked economical.

Justin said that geothermal was not in the top 3-4 priorities at the state level based on resource potential and bang for buck. Peter said we are participating in a study in Klamath Falls, but John made the point that it would come in under the efficiency program. Wave programs are still considered R&D. Justin said the technology will not make production scale before 2012. Transmission issues would also play into Energy Trust participation in a wave project.

Peter said a more detailed version of the budget will be ready in October. Margie said that the roll up was presented to this morning's finance committee. There will be time at the next RAC meeting and later to provide input and comment. The final budget will be addressed at the December 14 board meeting, and comments will be solicited until that time.

4. Public Comment

Jeff would like to get a better sense of the above market cost methodology applied to biopower projects, particularly if results show there are no above market costs. Intangibles and risk factors may create market barriers, and how are those accounted for in the evaluation methodology. Ancillary benefits, residue disposal, conversion of methane to carbon dioxide are factors he suggested would be incorporate into the cost effectiveness calculations. On the risk side, natural gas price decreases will change future price calculations, which will affect the economics of these projects.

Angus said that the fuel cost risks are very different for biopower projects. Adam said that Ed Sheets reviewed the methodology at the last RAC meeting. When we do the economic analysis, we do look at the financial value of the various benefits of the project. Where effects are monetizable, we do consider them. For other intangibles, we are legislatively constrained in what we can support. If we can't make an argument that there are above market costs, then we can't support the project.

Virinder asked if the current group of proposals looks at financing terms being affected by fuel source risks, comparable to financing cost increases for wind projects that take into consideration low capacity factors. Adam said we haven't seen that yet, but we expect to when the second round proposals are analyzed. Fuel supply will be a criterion for review, and we welcome analytical support from the Power Council in identifying and treating these factors in our analysis.

Christopher added that he really appreciates the work that Kacia and Anna do on the solar programs and Peter's support, and he presented a solar energy system candy bar to Peter.

5. Adjournment

Peter adjourned the meeting at noon.