EnergyTrust of Oregon, Inc.

RENEWABLE RESOURCE ADVISORY COUNCIL
Notes from meeting on June 20, 2007.

Attending from the Council:
Thor Hinckley, PGE
Lori Koho, OPUC
Troy Gagliano, RNP
Angus Duncan, BEF

Attending from the Trust:
Elizabeth Giles
Erin Johnston
Alan Cowan
Adam Serchuk
Kacia Brockman
Jan Schaffer
John Volkman
Fred Gordon

Attending from the Board:
Alan Meyer, Weyerhaeuser
John Reynolds, University of Oregon

Others attending:
Dave Tooze, City of Portland
Jon Miller, OSEIA
Jason Bagwill
Robert Moody
Craig Stewart, Tanner Creek Energy
Dan Dettmer, Advanced Energy Systems
Steve McGrath, Commercial Solar Ventures
Sandra Walden, Commercial Solar Ventures
Mark Heizer, Interface Engineering
Lisa Petterson, SERA Architects
Rebecca Sherman, Hydropower Reform Coalition

1. Welcome and Introductions

Adam convened the meeting at 9:35 am. The May notes were adopted without change.

2. Legislative update

Jon Miller reported that HB 2211and 2212 have been combined into omnibus bill, HB3201. HB 3488, which will property tax exemption for facilities with solar, has passed the house but is likely to have amendments by the Senate. HB 819, the BETC kicker fix, passed the house and will now move into the Senate.

Alan Meyer reported that at the federal level, the Senate finance committee passed an amendment to section 45 that would remove the third-party sale requirement for biopower, which means a project no longer needs to sell the electricity from the site in order to claim the tax credit.

3. Strategic Planning Retreat Follow-up

Adam shared some of the results and conclusions from the Board strategic planning retreat in June. There were three primary outcomes for renewables, all of which were considered in light of the recent passage of SB 838.

The Board agreed that Energy Trust should have the flexibility to pursue demonstration type projects that may be more R&D in nature. Staff is currently working on a policy, a draft of which will be brought before the RAC in July. Project location and power delivery was also discussed. This would enable Energy Trust to explore projects outside of Energy Trust's service territory if the project delivers green tags to PGE or Pacific Power customers.

Energy Trust's ability to engage in and support activities that do not directly contribute to the above-market costs of a renewable project was also discussed in response to possibly restrictive language in SB 838. SB 1149, the bill that originally directed the activities that Energy Trust was to engage in, stated that the Trust was to fund "the above-market costs of new renewable energy resources." Energy Trust and the OPUC interpreted this to encompass the market development and industry support necessary to cultivate good projects and encourage growth in the renewables sector. However, SB 838 included language that appears more narrowly define how funds are to be spent, on "…the above-market costs of constructing and operating new renewable energy resources with a nominal electric generating capacity . . . of 20 megawatts or less."

Lori said that there has been a great deal of discussion at the OPUC about how much flexibility they have to interpret the bill, and there is no answer as of yet. The Department of Justice (DOJ) is gathering evidence and communicating with those involved in writing the bill to clarify the intent, and plans to have some results by Friday (June 22). However, there is the possibility that the issue may have to go back to the legislature for an amendment, which would not happen in 2007.

Dave Tooze asked what the process will be for rectifying this problem, and whether there would be an opportunity for constituent and stakeholder input. John Volkman replied that it is common for new legislation to require clarification. Energy Trust is waiting to see what the Department of Justice provides, and believes things may be resolved without major issue.

Lori said that DOJ is searching through the tapes and records from the bill to gleam what the intent of the legislation was when the language was crafted. Angus commented that in the meetings he attended, he never recalled any conversation around changing to the mission of Energy Trust. Troy agreed, saying that the only discussion was about extending the life of Energy Trust and focusing on projects 20 MW and less. Jon Miller concurred. Lori asked that those involved in the drafting of the bill e-mail their thoughts to herself, Lisa Schwartz, Lee Sparling and Lee Beyer.

Jon said that while he feels that the language used was unfortunate, it should be implicit that certain activities are necessary to the programs operating successfully. On the other hand, if you get too far from activities that lead to constructing and operating a project, it is appropriate for there to be push back. Adam asked how Jon would characterize 'too far.' Jon said that early stage R&D might be too far.

Adam explained that the next steps will be to develop the demonstration and project location policies. Energy Trust staff will also work on how to measure success for non-project activities, and begin developing new annual project benchmarks and market development goals for the 2008 budget. In the fall, staff will propose a new, long-term department goal to the Board.

Angus asked when these issues would be discussed with the RAC. Adam replied that the demonstration policy will be brought before the RAC in July, and staff will continue to roll items out through the summer as drafts are developed.

Alan Meyer expressed concern that Energy Trust had yet to seek guidance from the OPUC on treatment of Green tags. Lori said that she believed the issue had been addressed. John Reynolds agreed that the topic was resolved and closed at the retreat. Alan requested further clarification of the outcome. Lori said that there is staff consensus that the goal of Energy Trust is not just to acquire green tags, but to develop successful projects. Alan replied that this interpretation should be subject to change in light of the passage of SB 838. Lori responded this consensus was arrived at in ocnsideration of SB 838, and was the result of conversations internally with Commissioners at the OPUC. Adam added that Energy Trust's understanding is that green tags acquired through program activities will count toward the utilities' obligations.

However, RPS compliance is the responsibility of the utilities, and Energy Trust's mandate is to develop projects.

Angus said that he expects that there will be more conversations between Energy Trust and the utilities as the utilities become more interested in Energy Trust's green tag acquisition activities. Dave added that the end-use customer should not be forgotten in this discussion. Many customers will want to be able to, at the very least, share the tags so that they can claim the green benefits of their projects.

4. East Portland Community Center Solar Project

Betsy described a proposal for a 90 kW solar electric installation at the East Portland Community Center for which the Open Solicitation Program is seeking approval for up to $166,500 in funding. The project is applying for LEED certification and is expected to generate 92,434 kWh annually,

Except for one key difference, the project's financing is along the line of the standard investment model as used for most wind projects and for the previously approved Portland Habilitation Center solar project. A Limited Liability Corporation (EPCC Solar LLC) is being formed between a majority, outside investor and BEF to finance the system. Total installed costs are estimated at $891,000.

The majority investor is contributing 70% of the installation costs. Utilizing a grant from PGE, BEF provides 11.3%. The LLC proposes that Energy Trust's funds make up the remaining 18.7%. For the first five years, the majority investor will be the majority owner (99.9%), absorbing all the tax benefits, paying all costs and receiving all the energy sales revenue attributed to the project. After five years, owner percentages will flip with BEF becoming the majority owner (95%) and the majority investor becoming a minority owner (5%). BEF will then receive 95% of the benefits of the system and absorb an equal share of any costs. At that point, BEF will have the option to buy out the investor at a price of 5% of the appraised fair market value of the PV system. BEF and the city of Portland may structure a second agreement to transfer ownership of the PV system to the city.

Angus added that BEF will set up a subsidiary, to avoid any tax complications. Additionally, BEF and the project investor consultant, Commercial Solar Ventures (CSV), are hoping that this can be used a model for future opportunities for solar on public entities.

The total project costs are $891,116. Energy Trust's subsidy of $166,500 will cover 100% of the above-market costs. In addition, Energy Trust will set aside $9,000 of that subsidy to be used to compensate BEF, should the city decide not to exercise the option to purchase the solar system after year six. A $100,000 grant has also been awarded by PGE. Energy Trust and PGE will jointly take title to all the tags for the project and retire them on behalf of PGE ratepayers. Energy Trust's payment will be on commissioning.

In addition, the inclusion of the PV system could lead the Community Center to achieve LEED Platinum rating. This would be the first LEED Platinum pool in the country. Troy asked what portion of the building's power will come from the solar electric system. Lisa Petterson replied that it will provide roughly 12.5% of the site's electricity. Troy asked about the funding from PGE, which Thor said is coming from the Clean Wind Development Fund.

Dave commended all of the players involved in developing this project, which will act as a replicable model for other projects with similar financial situations. His thanks included PGE, Energy Trust, the Park Bureaus, BEF, SERA Architects, Interface Engineering and CSV.

John Reynolds asked about the disposition of the green tags, which Betsy said are being jointly retired on behalf of PGE and Energy Trust. Thor added that they will ultimately count toward PGE. Lori asked if there would be a conflict since the funding is coming from ratepayer options. Thor clarified that the funding for the Clean Wind Development Fund is net after the customers receive their tags, and thus should not present a problem.

Adam thanked Betsy for her work on the third-party ownership model, adding that the Open Solicitation Program exists specifically to provide an avenue not only for uncommon technologies, but creative ways to make renewable projects happen.

The RAC agreed to endorse the project, which will be brought before the Board at the next Board meeting.

5. Small Wind Program Design

Alan Cowan described the preliminary design for the small wind program. The primary motivation for developing a stand-alone program with a standard incentive is consumer demand. Every week, Energy Trust receives numerous inquiries about small wind, which are currently being directed to the anemometer loan program. Small wind is to the rural residence what solar PV is to the urban residence. The tax benefits from the state in the form of the Residential Energy Tax Credit (RETC) and Business Energy Tax Credit (BETC), and proposed federal tax credits for small wind are also driving interest.

The small wind industry is undergoing a significant amount of growth. Turbine manufacturers Bergey and Southwest Windpower have a good track record with their existing products, and there are new technologies opening up the market. Activity is also increasing locally, with two manufacturers in the Newberg area, Abundant renewable Energy and Volt-Air Wind Electric..

Energy Trust contracted with NWSEED to investigate existing small wind programs across the country. They identified and explored the five most successful and innovative programs nationwide. There appear to be three primary types of incentives: cost based, capacity based and hybrids (based on production and cost with a cap). Three states have a list of eligible turbines, and two use approved installers. None stipulated green tag ownership or a post-installation inspection.

There are several barriers to small wind for the consumer in Oregon, some of which are of Energy Trust's making. Currently, Energy Trust requires a one-year resource assessment from an anemometer, which is long time investment. There is a general lack of performance standards and accredited installers. Energy Trust does not offer a standard incentive, so participants do not know what they can expect for an incentive. Conditional use permits are required for structures over 35 feet, and there are few sources of credible small wind information.

John Reynolds asked if an exception to the permitting issue was possible for small wind, similar to those for cell phone towers. Alan replied that there are some national efforts to obtain this, lead by AWEA, but currently none exist for wind. Alan said that allowing counties to become familiar with the installations is a good first step toward eliminating permitting problems.

The Program plans to provide resource assessment for consumers through a web-based mapped model system. A small wind schools initiative will provide consumer education through a public demonstration. This will also provide visibility to the program and promote community

acceptance of the technology, as well as providing training opportunities. Initially, the program proposes to work with 4-6 schools through a request for Letters of Interest.

Angus said that, while he remains dubious of anyone extracting cost-effective generation from small wind turbines, he is supportive of Energy Trust's effort. BEF has a full-time curriculum developer, and there may be opportunity for partnership between the two organizations. He also asked if the wind data software will be available on Energy Trust's website. Alan said that third tier (low resolution) will be available publicly for a first look through a link to AWS' website, and Energy Trust will secure access to the second tier (higher resolution) TrueWind wind data for use internally.

Implementation of a standard incentive will simplify the application/installation process and attract participants by covering some of the initial costs. Currently, installed costs vary greatly between manufacturers, so an incentive that is based on production and cost will help even the playing field. Applicants will qualify based on mapped wind data, where <10 mph does not qualify, between 10 mph and 12 mph will be conditional, and >12 mph qualifies. There will also be other qualifiers, such as lot size and setback requirements.

Alan Meyer asked how the program will develop a standard incentive that covers the above-market cost with the wide variations in cost. Alan Cowan replied that Wisconsin uses a production based incentive that includes the cost.

Quality assurance is also important to the program. Energy Trust proposes to address this through a list of eligible equipment and qualified installers. To begin, the program will publish a list of requirements for turbine manufacturers. In the long-term, the program hopes to transition to certified turbines. AWEA is developing a Small Wind Turbine Performance and Safety Standard through the Small Wind Certification Corporation (SWCC).

Qualified installers who provide O &M support is also critical to the long-term viability of the industry. Technical requirements will be

Training will be modeled after the solar program.

The next steps will be to Contract with wind map data provider, develop the schools initiative details and standard program details, and write and publish the outreach material.

John asked why the program wouldn't contract with both Three Tier and AWS, since two opinions are better than one. Alan said that we have begun comparing Oregon's anemometer data with the data from the sources. However, this may be a good recommendation.

Adam asked what the outlook is for the anemometer loan program. Alan responded that Energy Trust will continue to use the anemometer loan program for tall-tower data collection and analysis for the community wind program.

6. East Portland Community Center Solar Project

Betsy introduced Rebecca …. from the Hydropower Reform Coalition,

Rebecca Sherman Hydropower Refrom Cooalition represents over 130 organizations nationwide. Began in 1992 resulting from relicensing in the Great Lakes, but the focus has shifted to the Northwest. The platform is moderate, and they are now involved in FERC licensing requirements. Have been involved in what the definition of renewables should be for Renewable Portfolio Standards. There are three provisions:

Any project constricted before 1995, up to 50 MW, as long as certified

If you can improve the way you are generating power, you get benefit

Any power development, as long as it is outside of federally protected areas, is ok. Federally protected areas were developed in 1998 after five years of study. There are a few exceptions for existing power generating facilities and dams that would like to expand to include power production. When SB 838 was developed, they urged the drafters to include the language to state "no new impoundments, no new diversions."

Energy Trust, however, has the opportunity to develop a stricter definition of what is considered acceptable renewables. Additionally, some hydropower is regulated by state, and some by FERC. Our strong state standards do not always play out when it is a federally regulated project because FERC supersedes the state requirements. Betsy clarified that she assumed that any project in the state would be required to comply with the rigorous state standards, but there can be cases where the project goes through FERC and will not be subject to state review.

Angus asked what "no new impoundments or diversions" leaves as an option for hydro. Rebecca replied that irrigation diversions and new facilities on existing dams would qualify. Adam asked if run of the river would also be excluded by this. Rebecca clarified that run of the river means that what is taken from the river is returned, ie. there is no storage. However, usually there is still diversion. Angus asked if this assumes that there is no such thing as a new dam project that is environmentally acceptable. The presumption is that any project with an environmental footprint

Alan Meyer said that if the law defines what renewable energy is, Energy Trust may not have the flexibility to define what it considers acceptable. Adam replied that Energy Trust is free to develop policies, criteria or requirements as the Board sees fit.

Angus asked about the relationship between the Hydropower Reform Coalition and the Low-Impact Hydropower Institute. Rebecca said that there is no formal relationship, but there is considerable overlap in oversight. Betsy said that the Low-Impact Hydropower Institute does not certify new dams or pump storage, only existing sites to encourage more efficient generation.

Angus added that Energy Trust might consider looking to ODFW in the case where a project is being regulated by FERC, instead of developing its own policy.

Fred asked if the Coalition feels that all new hydro is undesirable, or whether the regulation is insufficient and/or ineffective. Rebecca replied that it is a little of both. Fred added that if it is primarily a regulatory issue, it may be worth working to resolve them as Oregon is going to have increasing demand for small renewables, and we do not want to exclude any workable options for the future.

Adam adjourned the meeting at 11:55am.