

## **RENEWABLE ENERGY ADVISORY COUNCIL**

Notes from meeting on May 1, 2013

### **Attending from the council:**

Glenn Montgomery, Oregon Solar Energy Industries Association  
Vijay Satyal, Oregon Department of Energy  
Frank Vignola, University of Oregon  
Suzanne Leta-Liou, Atkins  
Bruce Barney, Portland General Electric  
Dick Wanderschied, Bonneville Environmental Foundation  
Jason Busch, Oregon Wave Energy Trust

Jed Jorgensen  
Thad Roth  
Fred Gordon  
Rob Del Mar  
Dave McClelland  
Dave Moldal  
Pete Gibson  
Peter West

### **Attending from Energy Trust:**

Chris Dearth  
Sue Fletcher  
Jackie Cameron  
Betsy Kauffman

### **Others attending:**

Erik Anderson, PacifiCorp  
Lance Kaufman, Oregon Public Utility Commission  
Josh Peterson, University of Oregon  
Bill Eddie, OneEnergy  
Matt Hale, Oregon Department of Energy

## **1. Welcome and introductions**

Betsy Kauffman called the meeting to order at 9:30 a.m. There were no objections to the previous minutes. The agenda, notes and presentation materials are available on Energy Trust's website at [www.energytrust.org/About/public:meetings/REACouncil.aspx](http://www.energytrust.org/About/public:meetings/REACouncil.aspx).

Betsy announced that Dave McClelland is now the solar manager, replacing Kacia Brockman who left for a position with the Oregon Department of Energy. Dave has been with the program since 2006 and served in many capacities, with a particular emphasis in data analysis. Rob Del Mar has taken on some additional work with this transition, including serving as the technical lead for installation requirements and overseeing verifier contracts. Thad Roth expressed confidence in the team and appreciation for new staff in these roles.

Betsy announced that a new Request for Proposals, RFP, was issued on Monday. A link will be sent to Renewable Energy Advisory Council members. It is for competitive project development assistance. Responses are due June 3.

Pacific Power also has an RFP out currently for its Oregon Solar Program. It is for 6.7 megawatts in generation and is on its website. The due date is June 11. Qualifying projects must be between 500 kW to 5 MW in nameplate capacity.

Thad announced that in addition to the projects received as part of the competitive RFP for projects in Pacific Power territory, Energy Trust also has received four applications for custom projects in PGE territory. He reported this to give a sense of current activity levels. Of those four, two have been evaluated and don't presently meet requirements, and two are still under evaluation. Two of the applicants are also looking at the opportunity announcement from the state on combined heat and power, CHP, as well as a Renewable Energy Development grant. This is a case where the CHP is really an efficiency project.

## **2. Update on RFPs**

Energy Trust issued two RFPs in the first quarter, one for solar in PGE territory and the second for custom non: solar projects in Pacific Power territory. The RFPs were issued in late January and responses came in during February. Staff has been reviewing proposals since that time.

Betsy: Energy Trust received five responses to the custom RFP, requesting \$7.5 million across a range of technologies and sizes. Three applications are not being moved forward for an incentive at this time, and one is being presented today. Energy Trust is still in conversations with the fifth respondent. There may be some dollars left over. Projects that are not funded when first proposed can be reconsidered in a later RFP.

Suzanne Leta-Liou: I'm glad to see that applications came in.

Vijay Satyal: Do you have a sense of average project size?

Betsy: They ranged from 3.5 MW to 10 MW, across technologies.

Bruce Barney: So to be clear, three fell out, one is going forward and one is left for consideration?

Betsy: Yes.

Matt Hale: Of the three that fell out was the technology the same?

Betsy: Two were the same, one was not. We cannot provide more information during this stage; we keep as much information confidential as possible.

Thad: The projects that are not being funded at this time may come back in the future.

Dave McClelland presented the results of the solar RFP for \$1 million in PGE territory. It closed in early March and four applications were received for \$2.75 million. That is over the amount of funding available. The projects ranged from 400 kW to 10 MW. One of the proposals did not move to scoring because it was not ready to meet the development timeline, but the others were scored. Of the three, two scored high enough to be considered for funding. The one that didn't score high enough had requested an overly large incentive. Unfortunately, one of the projects that scored high enough for consideration pulled out. There will likely be some funds left over that will be redeployed. The proposal that remains for consideration is for a 400 kW project.

Matt: Why did the one project drop out?

Dave: The project owner moved out of state.

### **3. COID Juniper Ridge Phase 2 hydro project**

Jed Jorgensen presented on a hydro project that is moving forward for approval as a result of the custom RFP.

This is the Central Oregon Irrigation District, COID, Juniper Ridge Phase 2 project. It is a hydro plant that first came to Energy Trust in 2006. It was always represented as a two-phase system, in part because of financing. In response to the initial application, Energy Trust approved a \$1 million incentive. It has been the most cost-effective hydro project ever for the program. The plant came online in 2010 and was built as a 5-MW facility, but the first phase included only enough penstock to reach 3.5 MW of generation. It moves a tremendous amount of water, and it restored water back to the Deschutes River.

The forebay has a trash rack on it. It keeps the water level even. The powerhouse has a Francis turbine. The big cost is the pipe itself. The powerhouse and pipe from the first phase stay unchanged. Phase two is going to add 4,000 feet of penstock and a new forebay. Total cost for

phase two is \$6.5 million. Benefits of this project are increased generation and water restoration.

Bruce: Do they bury the pipe?

Jed: Yes.

Suzanne: They pipe the water in the canal. How does it get back to the river?

Jed: Because less water seeps into the ground with pipe, less water is withdrawn from the river.

Jason Busch: Does that mean that someone is getting less water for irrigation?

Jed: They are delivering the same amount of water because they are losing less; the pipe keeps it from soaking in to the ground.

Jed continued his presentation. There is no new capacity on this project. They are moving the project to the full generation of 5 MW. The same owners will still own the project. It is located just north of Bend. They will start construction in fall 2013 after the irrigation season ends and then restart the project in spring 2014.

Energy Trust is proposing a \$1.28 million incentive.

Because it is the same owner, there is past experience to gain confidence from. There is also confidence in the resource, since it has performed as expected. The development is straightforward for this project and the power purchase agreement is already in place with Pacific Power. The interconnection is already in place, too.

Jason: The work with the Federal Energy Regulatory Commission was done with the first project and did they pay for permitting then?

Jed: Yes, they have a conduit exemption, meaning that they are exempt from part of the federal power act. They looked at the entire project in the first phase because the marginal cost was very little to consider both phases.

Dick Wanderschied: Does this fall under older Schedule 37 rates.

Jed: Yes.

Dick: Are there any issues with fish passage? What did they do?

Jed: The first phase of the project worked through the fish passage issues.

Lance Kaufman: What happens with the discharge water not used for irrigation?

Jed: It goes to Deschutes River. I don't know how far down.

Josh: How has this phase increased the megawatts with this project?

Jed: By getting more head, which increases the pressure in the pipe.

Jed continued. Projects costs are driven mostly by the cost of pipes and forebay construction. Project financing includes resources from the Pelton Fund and other sources. The project owners believe that all of these funds are likely to come in and they have been successful at obtaining funding from the same sources in the past. The project does not have an Oregon Business Energy Tax Credit and was not eligible to apply for the Oregon Department of Energy's Renewable Energy Development grant.

Dick: Why was it not eligible?

Jed: What I heard from the project owner was that the grant did not allow for this project's characteristics.

Vijay: It could be the criteria that are in place and the information provided about the project.

Jed: They asked the Oregon Department of Energy and heard that the project wasn't eligible.

Matt: It is part of the process to allow those questions and answers to happen. We could revisit and see why this project may not have been eligible.

Jed: There is a fee and the owners wanted to be sure before applying.

Glenn Montgomery: It may be because they were not adding new capacity.

Vijay: We will look back and email Jed with the reason.

Jed: The first phase did have a Business Energy Tax Credit.

Jed continued. In considering this project, revenue including performance over time and power sales with new generation was examined, along with grants. Revenue is compared to costs, including capitalized and operational expenses. The above-market costs for this project are \$1.28 million.

Energy Trust has proposed an incentive to cover the total above-market costs. The application asked for \$1.5 million but the above-market costs were less. The project is viewed as low risk and the staff recommendation is to pay the entire incentive in one lump sum. One hundred percent of the additional Renewable Energy Certificates, RECs, will be acquired by Energy Trust at \$17 a REC. It is a cost of \$3.01 million per aMW.

Suzanne: That seems like a high cost per REC.

Jed: We take our incentive amount and divide it by the number of RECs to get dollar per REC.

Vijay: The operating costs look very low.

Jed: It is not the total operating costs, just the operating costs related to the new penstock and forebay.

Betsy announced that staff is looking for support from the Renewable Energy Advisory Council today and then this project will go to the board on May 22.

Frank: If the Business Energy Tax Credit were in place what would the cost be?

Jed: \$250,000 would be the most that they could get from the Oregon Department of Energy's current incentive program. It would reduce the above-market cost by that amount. If the old Business Energy Tax Credit were in place, it would cover 35 percent of project cost. Not having a grant or a Business Energy Tax Credit changes the way these projects look.

Dick: Did you take 100 percent of the RECs in Phase 1?

Jed: No. We took 75 percent on the first project, and paid 75 percent of the above-market cost.

Dick: What is the operating schedule?

Jed: It operates from April through October, with some winter stock runs for cattle.

Bruce: On a cost per MW basis, the first phase looks more expensive, but with this phase the incentive is going up.

Jed: The Business Energy Tax Credit was significant the first time, as well as the grants they got, and they secured an Energy Loan Program, SELP, loan.

Thad: A couple years back, we did some analysis on the impact on Energy Trust funding for projects without the availability of the Business Energy Tax Credit. That analysis showed that our incentive might need to double or triple. This project is an example of that impact.

Dick: I support the project.

Suzanne: I agree.

Vijay: Why the 8 percent discount rate?

Jed: We try to look at the cost of capital for an entity like this and the risks that they are taking. We also view public entities as being willing to take a longer payback. It is a number that we have tested over time and works well for municipal projects.

Vijay: The project makes a lot of sense.

Betsy: I would like to make a motion to approve and move this project to the board for consideration.

No objections were raised.

#### **4. Discussion of Renewable Energy Advisory Council purpose and member roles**

Betsy led the conversation and framed the it as a check-in on the purpose of the Renewable Energy Advisory Council. Betsy said that a similar discussion was held recently at the Conservation Advisory Council. Betsy posed three questions to council members:

- Who are you and how long have you served on the council?
- What do you see as your purpose on the council?
- What are the key roles for the council?

Betsy asked that each Renewable Energy Advisory Council member answer these three questions and time permitting, the discussion would be opened to people who are at the meeting, but are not regular Renewable Energy Advisory Council members. Betsy said that there are established documents that frame Renewable Energy Advisory Council purpose and roles, and she wanted to have this conversation without looking at those documents for reference.

Dick Wanderschied is vice president of the Renewable Energy Group at Bonneville Environmental Foundation, BEF, working on watershed restoration, renewable energy certificates and other projects. He took Margie Gardner's place on the Renewable Energy Advisory Council several years back. He has deep utility experience and worked for the City of Ashland for more than 30 years. He has tried to replicate what Energy Trust is doing in public utility district territory and has a goal of moving the small renewable market forward in Oregon. He believes that the key roles of the council are to question assumptions, ask questions that the board is going to ask of staff, and express concerns so that presentations and proposals can be amended or enhanced.

Jason Busch is executive director of Oregon Wave Energy Trust, a private nonprofit funded through the Oregon Innovation Council. Prior to the Oregon Wave Energy Trust, Jason was a lawyer in practice in Oregon in the fields of land use and energy. He has served for two years on the council but time demands at the coast keeps him from attending some meetings. The Renewable Energy Advisory Council provides him with a broad understanding of the renewable industry. He is on the council to represent the ocean industry, which is close to becoming commercially viable. He see the role of council member as bringing an educated and experienced perspective to project discussions, and to identify and expose problems with projects to improve them. By reviewing expert staff material brought to the council, council members are helping staff to avoid bad decisions.

Vijay Satyal has worked at the Oregon Department of Energy for the last five years in the renewable policy division. He works across divisions on incentive policy development. He has been on the council for the last three years and desires to coordinate and align incentive offerings and changes between Energy Trust and the Oregon Department of Energy. Serving on the council has been valuable for Vijay in serving as a link between Energy Trust's approach to policy issues and the Oregon Department of Energy's. He sees a role for council members to serve as advisors and says that minutes capture the discussion so that the board hears those opinions. He sees the council as a forum for transparency, with experts around the table with deep background in reviewing projects.

Glenn Montgomery works for the Oregon Solar Energy Industries Association, whose members are commercial and residential installers, utilities, nonprofits, manufacturers and others. He has served for three years on the council and sees the benefit as being informed on how Energy Trust is exercising its authority and its purpose and how that will affect the solar industry. He has prior background working for the state at Business Oregon and brings that experience to the table. Glenn agrees with his council colleagues that the Renewable Energy Advisory Council should serve an advisory role, offer expertise and look at angles differently. Renewable Energy Advisory Council members also help look at the big picture and weigh in on strategy.

Frank Vignola is the director of the Solar Radiation Monitoring Lab at the University of Oregon and has served for 10 years on the Renewable Energy Advisory Council. He sees his main role as creating a sound, reliable infrastructure to build the solar future, and does this by providing information for decision-makers and expertise in solar infrastructure investment and net metering. As a council member, he sees his purpose as making sure that staff are using funds wisely and addressing barriers to renewable energy development. He has worked on shade analysis for Energy Trust, and assisted with different technical problems. Council members can share what is happening in the industry. Council members need to look at the project proposals and make sure that nothing is overlooked; having a variety of backgrounds on the Renewable Energy Advisory Council helps do that work. He appreciates the transparency and openness of the process.

Suzanne Leta-Liou has been on the council since 2008, when she was at Renewable Northwest Project. She then transitioned to RES Americas and is now with Atkins. Prior to moving to Oregon, she was with nonprofit advocacy organizations for renewable energy development on the East Coast and sat on a similar board in New Jersey. She sees her primary purpose on the council as offering a higher level of organizational thinking, as well as permitting and siting experience. One of the values of being part of the Renewable Energy Advisory Council is helping Energy Trust think through what is the next step for the organization. Council members can provide guidance on longer-term vision and planning, and discussion of policy issues. Suzanne also sees value in reviewing where the market is going as part of the approval process. She also sits on the Citizens' Utility Board of Oregon and brings a consumer perspective and ratepayer interest.

Bruce Barney has been on the council for six months, filling in after Thor Hinckley left. He has been with PGE for 11 years, and has background in mechanical and electrical engineering and biology. At PGE he works on interconnection and serves as a conduit bringing information back and forth between PGE and Energy Trust. He believes the utility perspective he brings is a benefit to the council. He sees the Renewable Energy Advisory Council's purpose as advisory, providing transparency and offering staff expertise through members' shared knowledge.

Betsy asked two attendees at the meeting who are not Renewable Energy Advisory Council members, but often attend council meetings, to weigh in.

Erik Anderson is customer manager for PacifiCorp and is focused on small-scale projects, typically solar. He manages this work, including internally run incentive programs, for all six states PacifiCorp serves. He sees value in what is discussed at the Renewable Energy Advisory Council and its applicability to his group. He has been coming for a year when topics are relevant. He sees the purpose for PacifiCorp as participating in long-term planning and coordination.

Matt Hale has been coming to the Renewable Energy Advisory Council for two years and manages the energy technology team at the Oregon Department of Energy. The Oregon Department of Energy sends staff to the meeting based on what is on the agenda and has a lot of interaction on a daily basis with Energy Trust outside of the Renewable Energy Advisory Council. Matt sees the council as a good forum with the right level of expertise, and a resource for sharing ideas and information.

Betsy commented that she didn't hear much reference to the budget process and solicited feedback on that point.

Suzanne: I think that is a critical component and part of our role.

Vijay: The budget conversation at the council is robust and information comes out in project discussions, too. You could remind us of the budget when we are having project discussions, and we can always email with questions.

Glenn: I feel as though we have the right view into the budget. I don't feel qualified to offer solid advice on the budget because we don't cover it deeply during the year. If we cover it more deeply, I will become more comfortable offering advice.

Frank: We have had carryover in the past. That has changed, which makes budget discussions more important. We do discuss the budget throughout the year.

Jason: When I have reviewed the budgets, I thought that there were a lot of assumptions that went into the numbers. I have had some questions regarding the assumptions but I don't know if that is a board or Renewable Energy Advisory Council role.

Betsy opened the conversation to some additional questions. Are there areas of the Renewable Energy Advisory Council process or responsibilities that are unclear? Are there important voices in the renewable community that are missing? What kinds of topics would you like to see on the agenda that haven't been?

Vijay: I first attended the Renewable Energy Advisory Council to deliver a presentation. I would like to see broader presentations, particularly about what is happening outside of Oregon. I would also like to hear from Energy Trust about your experience with other project funders. I would like to know more about those other funders and their role in project development.

Suzanne: I also like the concept of using the Renewable Energy Advisory Council as an educational forum. Our organization has developed a tool that aids in project development that could be shared here. Also, discussions of permitting and what developers need to be more successful could take place here.

Frank: There are a lot of proposals for projects where problems exist. Maybe some of these problems should be brought to the Renewable Energy Advisory Council. Then we can discuss

solutions to these problems. We could discuss targeting incentives differently, or interconnection issues, for example.

Vijay: It would be good to hear from the utilities as well. Sometimes we have third party or interconnection issues. If they are addressing those issues in some way we would like to have those discussions here. Maybe every meeting could have a rotating educational component.

Glenn: It would be good to have someone from the Bonneville Power Administration, BPA. Presentations would be good as well. Mark Kendall could bring a depth of experience. It may also be helpful to have someone who is supportive of renewables but is outside of the renewable industry. Also, it could be helpful to have some attendees who we interact with but aren't always in agreement with our approach.

Betsy: BPA has been a member in the past.

Vijay: I wonder if key board conversations should be shared with the Renewable Energy Advisory Council from the previous board meeting.

Bruce: I didn't have a good understanding of the role of the Renewable Energy Advisory Council when I started. It would be helpful to get a welcome packet for new members.

Frank: Solar Oregon could be a good addition as well as the Citizen's Utility Board of Oregon. It is helpful to get a public perspective.

Vijay: It might be helpful to hear more on the OPUC process with Energy Trust. What is the engagement process?

Suzanne: I wonder if it is of value to have a state legislator on the Renewable Energy Advisory Council.

Dick: It might be useful to look at some of the past projects to see what we thought we would get in terms of results and what we actually got. I also like the idea of visiting some of the projects to see cutting-edge technologies at work. It might be good to have more representation from the developer community or Matt Mylet, a lender to developers.

Josh: It could be interesting to have someone on the Renewable Energy Advisory Council from Washington State.

Betsy: It can be difficult to have someone farther afield dedicate the time to attend.

Peter: Perhaps those types of attendees could be guest speakers.

Frank: It might be good to have a legislative staff member.

Jason: I would suggest Oregon State University as a participant at these meetings.

## **5. Public comment**

Frank announced that University of Oregon now has funding for testing of photovoltaic modules at his lab. He also announced that they are holding a meeting at Energy Trust on May 21 from 10 a.m. to 1 p.m. on the regional solar monitoring project.

On May 15 Portland State University has agreed to have a tour organized by Solar Oregon to two of three lab facilities that Portland State University runs. It is part of Solar Drinks. To learn more go to [www.solaroregon.org](http://www.solaroregon.org).



The geothermal working group will meet on May 15 at the Port of Portland to see the heat pump system at the airport that utilizes ground source heat pumps.

Glenn announced a document now available on his website that lays out a bold vision for the next 20 years.

**6. Meeting adjournment**

Betsy thanked council members for their participation and adjourned the meeting at 11:40 a.m. The next full council meeting is June 19, 2013.