



## Renewable Energy Advisory Council Meeting Notes

April 23, 2014

### Attending from the council:

Bruce Barney, Portland General Electric  
Jason Busch, Oregon Wave Energy Trust  
Robert Grott, Northwest Environmental  
Business Council  
Juliet Johnson, Oregon Public Utility  
Commission  
Matt Krumenauer, Oregon Department of  
Energy  
Suzanne Leta-Liou, Atkins  
Michael O'Brien, Renewable Northwest  
Dick Wanderscheid, Bonneville  
Environmental Foundation  
Tashiana Wangler, Pacific Power

### Attending from Energy Trust:

Chris Dearth  
Matt Getchell

Fred Gordon  
Jed Jorgensen  
Betsy Kauffman  
Dave McClelland  
Debbie Menashe  
Dave Moldal  
Elaine Prause  
Thad Roth  
Gayle Roughton  
Lizzie Rubado

### Others attending:

Bill Eddy, One Energy  
Wendy Koelfgen, Clean Energy Works  
Alan Meyer, Energy Trust Board  
William Newell, Cascade Policy Institute  
John Reynolds, Energy Trust Board

### Welcome and introductions

Betsy Kauffman called the meeting to order at 9:30 a.m. and reviewed the agenda. The minutes from the March meeting were approved. The agenda, notes and presented 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).

### 1. Energy Trust Strategic Plan update

Elaine Prause presented on the creation of Energy Trust's draft Strategic Plan for 2015-2019. Staff are preparing for a retreat about the Strategic Plan for the Board of Directors in June followed by summer outreach of the draft plan.

Initial feedback, including feedback from Renewable Energy Advisory Council members, confirmed that energy efficiency acquisition and renewable energy generation should be the core goals in the plan. When asked whether aspirational goals should be included in the plan, such as peak load management and climate goals, council members expressed interest in Energy Trust focusing on core goals and supporting other opportunities if linked back to core goals.

The future focus of Energy Trust, as described in the draft plan, is achieving core energy efficiency acquisition and renewable energy generation goals while working in new ways. The draft plan describes applying integrated resource planning to efficiency investments, supporting renewable energy project and market development, leveraging and collaborating with others and prioritizing efforts through strategic planning. The draft plan identified four strategies regarding efficiency issues: improve program designs and services to meet customer needs, broaden participation, support new technologies and new approaches, and decrease costs.

Robert Grott: What is meant by the inclusion of integrated resource planning in the draft plan?

Elaine: Integrated resource planning is letting the utilities know what we see as available cost-effective resource and what we can achieve. This is consistent with existing current Energy Trust practices.

Elaine described the renewable energy portion of the draft plan, which includes continuing the current focus on early project and market development, continuing support for a range of technologies and reconsidering the generation goal to reflect the market. At the retreat in June, the board will consider what it would look like to not have a generation goal. Energy Trust will continue to focus on early market development and to allocate funds across technologies.

Initial work on the strategic plan identified a need for an operations plan. This would allow Energy Trust to think about how strategies in the plan are met internally.

Next steps include a draft presentation at the Energy Trust board retreat in June. After the retreat, staff will incorporate the board's feedback into the plan and conduct additional outreach.

Dick Wanderscheid: What is considered related to utility roundtables?

Debbie Menashe: We have roundtables with our board and the utilities. We are considering making the strategic plan the topic of the next roundtable. Additionally, we have had individual discussions with utility staff over the last month about the strategic plan.

Juliet Johnson: On the topic of reconsidering the generation goal to reflect the market, was there a consensus at the last Renewable Energy Advisory Council meeting that the generation goal isn't necessary?

Elaine: The discussion was about how we would set a generation goal for five years. Currently, we have a process for setting goals and performance metrics. The single generation goal today is for solar. Is our success in the market reflected in the current generation goal? Are those numbers the most important or is there other value that we are bringing? There was interest in addressing these questions in the strategic plan. The council did not provide a consensus to shift away from a generation goal.

Suzanne Leta-Liou: I see value in looking at goals in other ways. I encourage looking at the pipeline, how utility scale portfolios are managed and how progress is tracked.

Jason Busch: Do you capture economic impacts of projects?

Elaine: Renewable goals have always been very specific and focused on generation. We now have a new set of benchmarks. Measuring economic impact is not one of those goals.

Fred: Energy Trust conducts a study based on an input/output model. It is not broken down by individual resource but renewables is rolled in. This study looks at economic impacts in an aggregate number.

Juliet: I appreciate the focus on core goals in the draft plan. How does meeting the state goals fit with the input you received?

Elaine: Through meeting our core goals, we help others meet their goals. For example, we are listed in the state's road map for meeting climate goals. In meeting our core goals, we are contributing to the state's goals by influencing greenhouse gas reductions.

## **2. Mapdwell solar mapping tool**

Lizzie Rubado presented a new pilot tool to help reduce the non-equipment “soft” cost of solar installations. Solar installation costs are lower in other countries, and Energy Trust would like to make solar more affordable for more Oregonians. Some soft costs come from customer acquisition. Demand for solar hasn’t yet reached a point where it sells itself. Contractors spend a lot of time selling customers on projects, and many of these projects don’t move forward.

Energy Trust plans to provide broadly accessible tools to increase demand for solar and reduce customer acquisition costs. An online tool can efficiently address the questions that customers consistently ask, making the sales process more efficient.

The U.S. Department of Energy SunShot Initiative produced some new options in the market. Last fall, Energy Trust issued a request for proposals for a new product and received six responses. Staff selected Mapdwell, which is in development right now for our the Portland area.

Mapdwell is an online platform with a Google map-like interface. It shows the potential for solar power production for every building rooftop in a specific area. Energy Trust plans to pilot this tool in Beaverton, Tigard and Hillsboro. The company captures a 3-D image of a geographic area, and overlays weather and mapping data. For every hour in the year, Mapdwell can show how much solar energy hits a building using publicly available data.

The tool shows solar production potential of building rooftops and provides a high-level summary of the financial, technical and environmental benefits of installing solar. Mapdwell has a simple interface and allows a user to print or send information to a contractor to get a more specific estimate. Anyone in the geographic area with an existing solar system can voluntarily add their system to the map. This tool shows the full solar potential of the overall area mapped.

Alan: How accurate is this tool?

Lizzie: The company states that Mapdwell’s generation estimates are accurate within 3 to 5 percent. We don’t have information yet on the accuracy of other summary information provided to potential customers. The inputs are provided by the program sponsor, so we will put in the assumptions. This is why we are testing the tool as a pilot.

Suzanne: How does the tool factor in home or commercial energy use?

Lizzie: It doesn’t factor that in at all. It has an assumption that there is a load to benefit from generation.

Suzanne: It would be interesting to see if Green Button data can tie in. How often is the data updated?

Lizzie: It is up to us. The pilot version of the tool will use data from 2012 LiDAR flight. Energy Trust can ask for an update and identify what has changed since the last look, depending on available data. This data is typically gathered in urban areas every 2-3 years. Updating data doesn’t require a complete redevelopment of the map.

Suzanne: I see value in adding in Energy Trust incented solar systems to the map. Is that part of the plan?

Lizzie: We see benefit of that as well and it is under consideration.

Suzanne: What are the costs to implement this as a pilot and for the full territory?

Lizzie: There are two costs. There is a recurring ongoing maintenance cost based on the size of area covered. The yearly cost for the pilot area is approximately \$15,000. The larger cost is

a one-time fee for the map of the area, which is based on the number of buildings. For this pilot area, this one-time fee is approximately \$50,000. If we decide to add additional geographic coverage, there will be additional one-time costs. Portland would be most expensive. Adding more area will also increase annual subscription costs.

Dick: You could layer utility data and we could see feeder issues, such as feeders with too much solar or interconnection issues. This may be useful in urban areas, but it may not make sense in more rural communities. Will you get data on usage of the tool?

Lizzie: We agree that there may be utility opportunities for the tool. PGE staff attended a demonstration and were interested in the underlying information. We do get usage data on who is using the systems on a monthly basis, so we know where interest is coming from. This will let us know where we need to do more outreach. We also want to learn how to use this as a lead generation tool with trade allies.

Bruce Barney: Are the underlying economics driven by a net-metering model? Could the tool look at the feed-in tariff model?

Lizzie: The out-of-the-box tool is currently structured to assume a net-metered installation with Energy Trust's incentives. In theory, it can be customized.

Bruce: The differences are so big that it would be good to see both ways. Is the goal to have this be a zero-cost model? Could contractors support the cost?

Dave: Contractors could have a per-lead cost in the future to support use of the tool.

Robert: It would be good to consider how it looks for purchase versus lease models.

Michael: Do you expect contractors to use Mapdwell to target customers?

Lizzie: Yes, we do. Contractors in other cities are using this to target and educate customers.

Suzanne: What were the other responses to the request for proposals? Why did this one stand out?

Lizzie: Mapdwell stood out for its accuracy and methodology. The academic and research-focused approach fit well with our goals. Many of the other products were sales tools with a for-profit business model connecting contractors and customers. This wasn't what we were looking for now, but we expect a lot of those tools to become more readily used in the market.

Jed Jorgensen: If the tool is successful, could you reduce program paperwork?

Lizzie: It does pose future opportunities. The U.S. Department of Energy is investing in tools like this to reduce process steps and costs for everyone—consumers, contractors and administrators.

Alan: Does support for this tool fit under SB 1149 and our role to cover above-market costs?

Dave: By reducing soft costs and increasing demand, we can reduce our incentives. This is market development.

Lizzie: The expected launch for this pilot is in July. Energy Trust will put together a release plan that will include workshops with Solar Oregon. We will also create an evaluation plan.

### **3. Solar request for proposals plan**

Dave McClelland presented on this topic. For 2014, Energy Trust allocated \$6 million for solar projects in PGE territory and \$1 million for larger solar projects.

In 2013, Energy Trust conducted a competitive bid process for larger projects and received four responses to a request for proposals. Two of the respondents were not ready to move forward, one fell out and one moved forward and is nearly final.

This year, Energy Trust is conducting a simplified bid process instead of a request for proposals. There are \$1 million available for solar projects in PGE territory with 250 kilowatt hours to 2 megawatts aggregate capacity. The systems will need to be net-metered, meeting PGE load at the site and eligibility requirements.

These funds will be allocated through a competitive bid process open to solar electric trade allies. Trade allies will tell Energy Trust what incentive they need to move a project forward.

A two-page application was posted this week. Bids are due by May 30, and a ranked list of bids will be announced on June 16.

Bruce: What are the units of the bids?

Dave: Capacity based in DC watts.

John: Who will dog the screening?

Dave: The solar program at Energy Trust.

Dave: Incentive requests are capped at \$499,000. This will allow at least two projects to be supported. The successful bidders will have a 90-day window to finalize an incentive application. On September 15, we will know if participating projects have moved forward to contracting. Approved projects will then get a one-year incentive reservation. On September 15, if a project is unable to move forward, the ranked list can be reviewed again.

Alan: Did the project approved last year use all the funding allocated?

Dave: No. Unused dollars were reallocated into the standard program.

Tashiana Wangler: Is eligibility based only on capacity?

Dave: No. The full list of eligibility requirements is on Energy Trust's trade ally web pages.

#### **4. Presentation on project development assistance for 2013**

Betsy presented on this topic. New renewable energy performance measures for 2013 were created with the OPUC, including a requirement for an annual report on project development assistance. This first project development assistance report for 2013 was sent to Renewable Energy Advisory Council members. The other performance measures were:

- Standard net-metered solar to meet 85 percent of the budgeted generation goal
- Non-solar to meet a three-year rolling average incentive per Renewable Energy Credit of less than \$29 per megawatt hour
- Staff to submit a report on innovative and custom solar projects

With project development assistance, Energy Trust is building a pipeline, expanding market understanding and helping projects secure financing. Project development assistance is primarily a pipeline building activity. It also addresses barriers like access to capital and challenging market conditions. With these resources, Energy Trust funds feasibility, design and interconnection studies, wind monitoring, permitting assistance and resource characterization.

In 2013, 22 projects were supported with \$492,000. Some of these efforts span multiple years. The projects reflected in this report include some that completed activities in 2013 and some that will complete activities in 2014. The 12 projects completed in 2013 account for \$130,000 and the 10 projects completing in 2014 account for \$362,000.

Tashiana: Did you look these efforts by utility?

Betsy: Yes. That is captured in a table in the report.

John: If a project received project development assistance, does that reduce its incentive?

Jed: It is included in the project cost. We do net it out.

Alan: Are these all custom projects?

Betsy: Yes.

Tashiana: If you subtract the project development assistance, does that mean you don't see it as part of the incentive? Does that mean that you get fewer Renewable Energy Credits?

Jed: We take such a large percentage of the Renewable Energy Credits that the impact would be minor.

Bruce: Is projects completed one of the metrics of success? What percent went to completion?

Betsy: That is one way to view the success of these efforts. Going forward, you will be able to see more of that reflected in this report.

Robert: Is telling a project owner that a project won't be successful sometimes considered a success?

Betsy: Yes. A "no" can be considered a success as it may prevent a project that wouldn't have succeeded from going forward.

Juliet: Did you take a larger view of what constitutes a project? For example, a county that had barriers to renewable energy development and the role you provided there. I would encourage you to think of projects more broadly in the future.

Thad Roth: We see that as market development. We could include those efforts in this report as well. We would distinguish that from work with projects.

Jed: Hydropower fish passage issues and our work with Farmer's Conservation Alliance is a good example from 2013.

Juliet: I could also see consultant time to these efforts being included.

Betsy: Broken down by technology, 12 hydropower projects, 7 wind projects and 3 geothermal projects received project development assistance in 2013. Energy Trust did a lot of biopower project development assistance in 2012 but none in 2013.

Project development assistance completed for hydropower included design and interconnection support for irrigation, design and permitting assistance, two feasibility studies and assistance with Federal Energy Regulatory Committee permitting. For geothermal power, project development assistance included resource characterization and feasibility work. For wind projects, there were interconnection studies and small wind project monitoring.

Suzanne: Did you provide the down payment for the interconnection study?

Betsy: We helped pay for it.

Bruce: What is wind monitoring?

Betsy: It is production monitoring and wind speed data gathering. It helps us know if the turbine is producing energy as intended at given wind speeds.

The hydropower activities to be completed include design and permitting assistance for four low-head projects in two irrigation districts. These include a scoping level study and

permitting and financing package assistance. Geothermal activities to be completed include initial resource characterization for two projects. Wind activities to be completed include an interconnection study for a community-scale project. This will allow finalization of a power purchase agreement.

In 2012, biopower spending on project development assistance was considerable and those funds translated into projects in 2013. Energy Trust spent about the same amount in 2013 as compared to 2012. There is greater uptake now in larger chunks of money.

John: How many project development assistance activities don't turn into projects?

Thad: It is probably less than 25 percent. The questions answered through project development assistance may be of value to us even if the project doesn't move forward. It is part of the business of developing projects.

Jed: We say no less often and provide answers more quickly. We can also say no when we know something won't work from past experience or application of project development assistance.

Dick: Some projects go forward but don't use Energy Trust incentives.

Alan: It sounds like we have good screening criteria for spending project development assistance dollars.

Thad: We do, and we continue to improve.

Betsy: We also sometimes turn people down for project development assistance. Those are not shown in this report. We provide information by phone outside of the project development assistance process to help answer questions.

Bruce: In 2014, do you expect hydropower to continue to use the most project development assistance dollars?

Betsy: We are anticipating project development assistance requests in Biopower. We also expect geothermal will be a bigger share of project development assistance requests, hydropower requests will increase later in the year and wind is likely to tap fewer dollars.

Thad: Is this information helpful? We see the benefit in presenting activities by utility and will show that next time.

Bruce: I would like to see a comparison of dollars spent to generation. Can we get to efficacy?

Thad: Yes.

Betsy: We exercise judgment when comparing requests and consider the generation potential.

Tashiana: What are you learning from the report, such as market trends?

Betsy: We can pull lessons learned into this report. A good example in the past was the Federal Energy Regulatory Committee process and our production of a guide that helped to reduce that barrier.

## **5. Public comment**

No public comment.

## **6. Meeting adjournment**

Betsy thanked the council members for their participation and adjourned the meeting at 11:40 a.m. The next full council meeting is scheduled for June 18, 2014.