Renewable Energy Advisory Council Meeting Notes

November 16, 2016

Attending from the council:
Erik Anderson, Pacific Power
Bruce Barney, Portland General Electric
JP Batmale, Oregon Public Utility Commission
Kendra Hubbard, Oregon Solar Energy Industries Association
Suzanne Leta-Liou, SunPower
Adam Schultz, Oregon Department of Energy
Frank Vignola, Solar Monitoring, University of Oregon
Dick Wanderscheid, Bonneville Environmental Foundation
Jeni Hall
Mia Hart
Andy Hudson
Jed Jorgensen
Betsy Kauffman
Steve Lacey
Dave McClelland
Debbie Menashe
Joshua Reed
Gayle Roughton
Lizzie Rubado
Kenji Spielman
Peter West
Lily Xu

Attending from Energy Trust:
Amber Cole
Mike Colgrove
Chris Dearth
Sue Fletcher
Matt Getchell
Fred Gordon

Others attending:
Jeff Bissonnette, Oregon Solar Energy Industries Association
Alan Meyer, Energy Trust board
John Reynolds, Energy Trust board
Ethan Sprague, Kevala

1. Welcome, introductions and updates

Betsy Kauffman convened the meeting at 9:30 a.m. The agenda, notes and presentation materials are available on Energy Trust's website at: www.energytrust.org/About/public-meetings/REACouncil.aspx.

Jeff Bissonnette announced that Oregon Solar Energy Industries Association (OSEIA) is working on its Oregon Solar Business Plan to define the potential for growth in solar. The research and final report will be available in January 2017.

Lizzie Rubado announced that Energy Trust is working with Oregon Department of Energy and four other states to develop strategies to expand solar more effectively in low- and moderate-income communities, funded by a three-year grant from the U.S. Department of Energy. Energy Trust assembled a stakeholder working group to help inform this effort, including members from Portland General Electric, Pacific Power, Bonneville Environmental Foundation and Community Action Partnership of Oregon. Energy Trust is also participating in a second grant opportunity to support low-income solar strategies in Oregon that was awarded to Northwest SEED. We are coordinating with the Oregon Public Utility Commission on efforts that may intersect with the low-income participation requirement that is part of its community solar rulemaking docket (AR 603).

2. Kevala

Ethan Sprague presented on Kevala's energy systems mapping tool that improves visibility into the interaction between distributed energy resources and the grid. The energy analytics business focuses on smart mapping and data analytics to support energy decision making across the country, including their grid assessor tool used to reveal where demand and grid value for solar and storage potential are most beneficial and to lower the cost of solar deployment.

> Funded by a U.S. Department of Energy grant, Kevala is working with Energy Trust to map existing solar systems and overlay them with substations in Oregon. Energy Trust customer information will be protected. After the map is validated and tested for accuracy, Kevala will provide Energy Trust access to a platform that includes census data, demographics and air quality data in Oregon.

Bruce Barney: Without hard data, the load profile would vary and one outlier could impact load.
Ethan: Our approach is to build the best methodology that can be broadly applied and validated with field testing. We are working with utilities to determine load and tighten up the algorithm to be more accurate.

Alan Meyer: Kevala's work with California used wholesale rates. Will the map also use retail rates for Oregon customers?
Ethan: We can add retail rates. There's high demand for that feature.

John Reynolds: How do you stay current with changing information?
Ethan: It's a challenge. Our hope is that by serving all market participants, we have a broader and better perspective. As we interact with different market participants, they share information and we can refine for more accuracy.

Frank Vignola: Are you factoring in seasonality of systems?
Ethan: Several tools, like solar production profiles, are looking at meteorological events. We can load wind profiles by locations. Our hope is that people will start using the tool to assess projects, then tie in interconnection queues so we know when systems come online.

Betsy: The OPUC might find this tool helpful for its work on resource value of solar, but this isn't creating a parallel process to the resource value of solar docket or replicating the resource value of solar work. Specific numerical values that come out of resource value of solar work may eventually be used as inputs into the tool.
Suzanne Leta-Liou: The tool isn't just looking at retail value. Studies look at different scales of the market segment.
Ethan: Kevala will take whatever comes out of the OPUC dockets and include it in the tool.

Bruce: Are the utilities being asked for data?
Betsy: Energy Trust is providing the project information we have. If utilities want to provide more information, it would make the tool more robust.

Suzanne: In Oregon, there's a different dynamic in terms of distributed energy resources penetration. It would be great if utilities could partner with Energy Trust and Kevala to see what's possible, especially given the storage rulemaking docket (UM 1751), and encourage better collaboration given those dynamics. What is the purpose of Kevala's product for Energy Trust customers?
Ethan: Kevala is trying to bring transparency to distributed energy systems across the country. Mapping feeder lines and voltage alone is a huge benefit. Every market is different, but we think

we provide value to Oregon and solar developers. Energy Trust will help validate data, encouraging users to use the tool.
Betsy: The original concept for the collaboration was data visualization—to map 10,000 systems and see what we're doing and where. We're leveraging the federal grant money, and Energy Trust's contribution is in-kind. We can use the data to look at low- and moderate-income solar opportunity in Oregon and be more strategic with high-value locations, what we're doing and where we're going.
Jed Jorgensen: There are a lot of potential ways to design and site the hydropower systems associated with irrigation modernization, and this data could also support that decision making process.

JP Batmale: For how long does Energy Trust have access to the map?
Ethan: 18 months.

3. Solar trade ally rating system

Matt Getchell provided an overview of the new solar trade ally rating system. The three-star rating system was built off of the Existing Homes trade ally rating system with feedback incorporated from the OSEIA and other stakeholders. We have already provided a current star rating report to each solar trade ally to review before it becomes visible on the online Find a Contractor tool in February 2017. Ratings are refreshed quarterly and each report evaluates performance for the past year. One star can be awarded for each of the following categories: customer service, program service and quality service.

Suzanne: What if a contractor is new to Oregon?
Matt: Solar trade allies have a probation period of 10 active projects to give them an opportunity to understand the Oregon market. For new allies, we would have a conversation with the contractor before the rating is posted online.
Dave McClelland: If we have insufficient information to provide a rating for a contractor due to low project volume, it will show as "no rating" on the web.
Matt: Quarterly ratings also provide a gauge to see when contractors drop out the market.

Bruce: What if the ally has a recent complaint and isn't able to reconcile it before a new rating?
Matt: We would handle that situation on a case-by-case basis. We wouldn't penalize them if they haven't had an opportunity to address the complaint.

Bruce: How do you expect a customer to see a two-star rating?
Matt: We hope that the market will be self-policed. The rating is meant to motivate the ally. Feedback from contractors was overwhelmingly positive, and contractors were interested in learning how to improve their score.

JP: If customers can't see the distribution of stars across all trade allies, they won't have that context through the Find a Contractor tool.
Bruce: Are we going to allow customers to see how many allies have one to three stars?
Matt: We are not planning to show that to customers.
JP: I think customers should be able to see that breakout.

Dave: The Existing Homes program has been using the three-star rating system for years.
Dick: Has Existing Homes seen an increase in three-star allies since the rating began?
Sue Fletcher: I'm not sure, but my guess is that there has been some change.
Matt: Existing Homes also has a lot more trade allies in their network.

Alan: As an objective rating, I see value for consumers and trade allies. It seems like the rating shouldn't be paid for with ratepayer dollars, but funded by contractors. A trade ally rating service is broader than our original mission.
JP: Energy Trust is empowering customers and continuing to reduce soft costs, which helps reduce above-market costs. The OPUC sees the rating as completely in Energy Trust's purview as it benefits ratepayers.
Betsy: This is also part of our strategic plan of improving operations and processes, and one intent of the rating is to improve paperwork.

4. Update on 2017 budget and 2017-2018 action plan
Betsy provided an overview of adjustments made to the 2017 budget for renewable energy programs. There was one change that led to an 11-percent reduction in solar generation in Pacific Power territory. There are no large projects in Other Renewables scheduled for completion in 2017, meaning that we are largely running a standard program. There's less funding for solar, but that's offset by lower incentives allowing us to support more capacity per dollar. Project development assistance funding will be available, especially for irrigation modernization projects. Public comments on the renewables budget were largely supportive.

JP: What caused the reduction in Pacific Power territory?
Betsy: There was a miscalculation in the round one budget.

5. Public comment
There was no additional public comment.

6. Meeting adjournment
The next scheduled meeting of the Renewable Energy Advisory Council is on Wednesday, February 8, 2017, at 9:30 a.m.