Renewable Energy Advisory Council Meeting Notes

April 29, 2015

Attending from the council:
Diane Broad, Oregon Department of Energy
Cindy Dolezel, Oregon Public Utility Commission
Shaun Foster, Portland General Electric
Robert Grott, Northwest Environmental Business Council
Michael O'Brien, Renewable Northwest
Frank Vignola, Solar Monitoring, University of Oregon
Dick Wanderscheid, Bonneville Environmental Foundation
Peter Weisberg, The Climate Trust

Attending from Energy Trust:
Mike Bailey
Chris Dearth
Matt Getchell
Jennifer Hall
Mia Hart
Jed Jorgensen
Betsy Kauffman
Anna Kelly
Dave McClelland
Debbie Menashe
Dave Moldal
Gayle Roughton

Others attending:
Megan Decker, Renewable Northwest
Elaine Prause, Oregon Public Utility Commission
Nick Lawton, Green Energy Institute
Alan Meyer, Energy Trust board
John Reynolds, Energy Trust board
Matt Shane, Oregonians for Renewable Energy Progress
Julie Peacock, Oregon Department of Energy

1. Welcome and introductions

Betsy Kauffman convened the meeting at 9:00 a.m. The agenda, notes and presentation materials are available on Energy Trust's website at www.energytrust.org/About/public-meetings/REACouncil.aspx.

Betsy announced that Thad Roth is the new residential sector lead at Energy Trust and thanked him for his work as the renewable energy sector lead for the past three years. Betsy replaced Thad as the renewable energy sector lead.

Betsy welcomed Shaun Foster, a new Renewable Energy Advisory Council member representing Portland General Electric.

John Reynolds announced that the University of Oregon Department of Architecture will host the inaugural John Reynolds Sustainability Symposium on Sunday, May 17 in Eugene.

2. Renewable Energy Certificates and Energy Trust's REC policy

Betsy introduced Energy Trust's Renewable Energy Certificate, REC, policy, which is currently undergoing its scheduled review with the board of directors Policy Committee. The REC market has changed significantly since the policy was first adopted in 2004 and the board is doing a more extensive review, including an examination of current market conditions and how the policy functions in those new conditions. A portion of today's Renewable Energy Advisory Council meeting is dedicated to small group discussions, and ideas from these discussions will be presented to the board in May.

Jed Jorgensen provided an overview of RECs, the REC market and the challenges of participating in that market. Energy Trust's current policy requires that RECs are transferred to Energy Trust in proportion to the above-market costs of each renewable energy project. When the market value of the REC is greater than Energy Trust's contribution, Energy Trust's share is reduced to match the market value. The market value of RECs in Oregon has been low and Energy Trust typically ask for 75 to 100 percent of the RECs for each project.

> Energy Trust works to register RECs in the Western Renewable Energy Generation Information System, WREGIS, for delivery to the utilities for ratepayer benefit. Energy Trust established a process to cost effectively enter RECs into WREGIS for large projects, but has been unable to do so for small, net-metered solar projects.
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> Jed presented two case studies to contrast the challenges of entering RECs into WREGIS by project type: one large custom biogas project and one small, standard net-metered solar project. For large custom projects, challenges include the negotiation of RECs between the customer, utility and Energy Trust, which increases the cost and complexity of managing RECs. Some customers decide to abandon negotiations with Energy Trust, while others decide to forgo the incentive altogether. For small net-metered projects, the sector is not able to cost effectively enter RECs into WREGIS because verified, metered generation cannot be done for less than the value of the REC.
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> Energy Trust has about 93,000 RECs annually. Custom projects represent 75 percent of the portfolio, and the remaining RECs are from small, net-metered projects. Based on Energy Trust's performance evaluation of these systems, Energy Trust proposed to WREGIS to use a statistical approach for registering Energy Trust RECs from net-metered solar projects. A decision from WREGIS is expected in the coming weeks.

Michael O'Brien: Are the costs only administrative?
Jed: No, there are also monthly fees, reporting fees and transfer fees, in addition to the staff time.

Peter Weisberg: Do the utilities always want the RECs despite the administrative costs?
Jed: Only if there are a lot of RECs and for a long period of time.

Elaine Prause: Do the average costs outweigh the benefits?
Jed: We haven't done comprehensive analysis to assess the costs and benefits. They vary considerably from project to project.

Megan Decker: Is a REC always valued at one dollar?
Jed: There isn't a lot of variation in REC value. On average, RECs are valued at one dollar at the wholesale level.

Jed: In general, the REC market is oversupplied. A lot of RECs come from wind and solar projects. There are two markets, voluntary and compliance. Compliance is the largest market, and was developed when utilities were required to have certain percentages of renewable energy to meet a Renewable Portfolio Standard, RPS. Portland General Electric and Pacific Power are in compliance with Oregon's RPS requirements until at least 2020.

Elaine: About one-half of Energy Trust's 93,000 RECs are not in WREGIS. Have there been any contractual issues when customers want to sell their RECs?
Jed: Yes, there have been some complaints from customers who want to sell them.

Robert Grott: Retrospectively, where did we think the market was going to be today?
Jed: We were optimistic that RECs would be valued at $25, which is the case in some states where there are carve-outs for specific kinds of RECs.

John: In the biogas case study presented, if the rights to the RECs are transferred from Energy Trust to the customer, does the customer pay the fees associated with WREGIS?
Jed: Yes, customers would pay to register the systems and would accrue RECs. This enables them to keep a percentage of RECs for green claims.

Frank Vignola: How much energy is embodied in a REC, and what are the WREGIS fees?
Jed: A REC accounts for "the renewableness" of 1 megawatt hour of renewable energy. The fees for having an account in WREGIS range from $1,500 annually for large entities to much less for smaller generators.
Julie Peacock: The fees have changed in WREGIS and are going down for smaller users.

Elaine: Is metering required for systems using the feed-in tariff?
Shawn Foster: There's a second generation meter installed to utility standards for those types of systems. There is a monthly fee and administrative costs to enter a system into WREGIS.

Alan Meyer: Do we have to use WREGIS for RPS compliance and Energy Trust's RECs?
Julie: State rules require an electronic trading system, so we would have to find another system for tracking RECs.

3. Small group discussions of RECs and Energy Trust's REC policy
Renewable Energy Advisory Council members, guests and staff divided into small groups to discuss two questions: Do you care about RECs? Why are RECs important or not important to the work your organization does or the projects you deal with?

Group 1 summary, provided by Michael O'Brien
RECs are important because they support the RPS, capture environmental benefits and help the state comply with Section 111(d) of the Environmental Protection Agency Clean Air Act. The group discussed if RECs actually influence the decisions of residential solar customers, and if it is worth Energy Trust's time to sort out RECs for small projects.

Group 2 summary, provided by Chris Dearth
RECs are important, but we need to address them differently. The average person is not familiar with RECs, and Energy Trust has an obligation to secure RECs for the benefit of ratepayers. We need to find a different registration system that isn't as costly or complex. WREGIS is set up for large operators and is not practical for small systems. We need to learn from other states about how they're handling these challenges. Staff time to manage RECs represents a large cost to Energy Trust.

Debbie Menashe clarified that there is no statutory obligation that Energy Trust take RECs from projects.

Group 3 summary, provided by Peter West
RECs are an important revenue stream and can help drive projects. The group discussed three possible scenarios for changing the way Energy Trust works with RECs. First, Energy Trust could not participate in the REC market, but include RECs in above-market cost consideration. In this scenario, it would be the utilities' responsibility to track RECs. Second, Energy Trust

could always take 100 percent of RECs and finances for each project. Third, Energy Trust could continue to provide incentives, but allow the use of replacement RECs when appropriate.

Group 4 summary, provided by Debbie Menashe
RECs are important, although the general public doesn't understand what they are or their purpose. RECs have compliance value and potential value for future regulation, such as for carbon. The green claim value is more important than the monetary value of RECs. Current administrative costs for Energy Trust and the utilities outweigh the REC value. We need to consider that there are different types of RECs based on project type, and therefore treat them differently.

Debbie: Our group would like to know whether administrative costs apply to all systems.
Shaun: Yes, there are large administrative costs for entering RECs for all projects.

Robert: Should Energy Trust continue to base RECs it takes on the above-market costs of projects?

Group 5 summary, provided by Diane Broad
RECs are important for providing recognition and integrity for a renewable energy project. Prior to RECs, there was no credible mechanism to monetize this value. RECs are complex and buyers don't understand how the REC market works, but RECs are a straightforward purchase. RECs allow smaller entities to go green and provide a mechanism for more market actors to bring renewable energy into their portfolios.

Elaine: We want to preserve their value, but find another way to do it.
Diane: Given that Energy Trust generates 25,000 RECs per year from solar that are not registered, we're concerned about the total dollar value of those unrecognized RECs.

Jed: There's a lot of value in RECs, and Energy Trust support of RECs makes them credible.
Small group discussions acknowledged that the value of RECs will vary based on the project. The dollar value on the retail market is comparable to the green value.

Betsy: We tend to think of all RECs as being the same, but perhaps we need to rethink this concept.
Alan: Yes, and how do we account for the variance in value? Maybe we need to rethink this construct.
Cindy Dolezel: The green value came up in our small group discussion, but speculative value could be more important. Municipalities and utilities want to hold onto RECs for future value.

Renewable Energy Advisory Council members, guests and staff reconvened into their small groups to discuss another question: What is the value of Energy Trust's investments in renewable energy projects?

Group 5 summary, provided by Robert Grott
From the perspective of the project developer, RECs enable projects and add legitimacy. From the utility perspective, there is compliance value. From a societal perspective, there is value in distributed generation, speeding up technology advancement and market penetration, reducing project costs through learning, improving conditions to enable more projects and reducing risk. By getting more distributed renewable energy, we strengthen and enhance the utility generation profile.

Group 4 summary, provided by Dave McClelland

Energy Trust brings value in addressing market barriers and market generation, which aren't captured in RECs. Energy Trust also provides value beyond RECs through market transformation and through renewable generation itself. Net-metered generation offsets utility generation, which reduces the RPS requirements for utilities.

Betsy: In summary, there is a common perspective that Energy Trust's investment in RECs is good because it creates projects. For discussion purposes and to dig a little deeper, why do we care about creating new projects, aside from RECs?
Dave: We're developing standards and exemplifying market transformation. There is a mathematical issue, however. The end goal is zero above-market costs and zero RECs. Given Energy Trust's current REC policy, we're paying less for each project and we have to take all the RECs.
Megan: There are system benefits that ratepayers receive from generation, which is different from the REC and market transformation values.

Group 2 summary, provided by Cindy Dolezel
The value of RECs is different for industries, municipalities and developers. For the developer, incentives create projects and early cash stimulus. For municipalities, projects bring state and federal funds to their communities, and Energy Trust acts as the third-party expert that validates projects. Upfront costs are committed and Energy Trust provides the vetting expertise. For industries, the value is in supporting contractors, building the expertise of contractors in industry through certifications, streamlining soft costs and generating public trust in projects that are given Energy Trust incentives.

Group 3 summary, provided by Dave Moldal
Energy Trust provides validation to projects, acts as an objective evaluator and provides investments throughout the state to stimulate the economy. The lower marginal costs of renewable energy development provide greater societal value and value in non-energy benefits, help projects reduce risk in an unpredictable future and create jobs.

Group 1 summary, provided by Anna Kelly
There is compliance, social, economic and environmental value. There is social value for Oregon, providing equity for future generations. There is economic value from decreased fuel costs and job generation. There is environmental value in displaced fossil fuel generation and non-energy benefits. Energy Trust investments provide value for project development, investment in renewable energy resources and reduced costs for renewable energy systems across the state.

Betsy: The value of renewable energy projects and RECs will exist regardless of who controls the RECs.
Julie: Some of these values are embodied in the definition of a REC.
Peter: Energy Trust is focusing on small projects with more barriers, but there's additional value that isn't captured by the baseline commodity of a REC.

Robert: The board should reconsider the calculation of the REC based on above-market costs and reexamine the treatment of small project RECs as different than large project RECs.

Dave: Utilities have to meet their Oregon RPS obligation of 25 percent renewable energy by 2025. We're trying to increase renewable energy generation, which reduces the total baseline generation from which the RPS requirement is calculated. We are also trying to provide RECs. Essentially, we're giving the utilities a double benefit.

Megan: Rather than try to capture the compliance value through RECs, we're supporting the compliance value through reducing the utility's load.

Peter: Energy Trust's value for qualifying facility, QF, projects is incremental beyond the value of large-scale projects. Energy Trust could claim benefits of a project, and the utilities would monetize the REC value. Energy Trust's focus would be claiming only above-market cost value.
Megan: In this scenario, we assume that the project gets some value from keeping the REC, reducing the costs and keeping the incentive.
Peter: It would be the responsibility of Energy Trust to come up with a credible way to value the REC and reduce the incentive amount proportionately. Energy Trust should focus on its incremental value apart from the REC.

Michael: Given the value, implied claims and huge transaction costs of small generation systems, the board should consider not pursuing RECs for these small systems. The public purpose charge could already account for the value of the RECs.

Robert: What is the value for the utilities?
Shaun: The value for PGE is compliance. We want to reach and comply with regulations. We would caution against overlooking RECs for net-metered projects. We are mindful of costs to ensure ratepayers are receiving the full benefits.

Dick Wanderscheid: There could be a hybrid approach by assigning some value to RECs, reducing the incentive amount and allowing the developer to decide how to manage the RECs. For net-metered projects where managing RECs are not cost effective, we could retire the RECs on behalf of the customer and provide a paper certificate. A methodology would need to be developed to quantify RECs for net-metered projects. A paper certificate would still account for the RPS goal to have small-scale renewable energy generation. Patrick Nye, Bonneville Environmental Foundation, would be able to help with aggregating the net-metered projects without going through WREGIS. *[Post meeting clarification from Energy Trust staff: paper certificates would not count toward the RPS goal.]*
Betsy: What's the difference between a paper certificate and not taking title to the REC?
Dick: The customer could sell them.
Betsy: There would need to be an agreement with the customer that they can't sell the RECs.
Dick: Energy Trust would take the RECs and retire them in the customer's name. The RECs wouldn't transfer to the utility.

Alan: This was a good discussion and I'm glad I was about to contribute. This isn't an easy problem to resolve.

John: Renewable energy is an important resource for continual development into the future. It's a shame if administrative challenges create a barrier to commendable renewable energy goals.

Dick: I recommend Energy Trust pursue a cost-effective solution to account for RECs outside of WREGIS.

Megan: While the board is reconsidering the REC policy, I would remind them to base its decision on the current landscape, as the REC policy will be reconsidered again in three years. The landscape will change and the REC policy will be reevaluated as such as that time.

Frank: I like the idea of retiring RECs with a paper certificate, but I'm not sure whether it's best done through the customer or the utility.

Shaun: We're focused on large-scale wind installations to meet RPS goals. There are many savvy residential customers who would see value in a paper certificate.
Alan: This is a good solution. Furthermore, we could also apply this to the utility to help them meet compliance requirements on behalf of customers.
Dick: That could lead to double counting RECs.

4. Public comment
There was no additional public comment.

5. Meeting adjournment
The meeting adjourned at 12:00 p.m. The next Renewable Energy Advisory Council meeting is scheduled on June 3, 2015.