Renewable Energy Advisory Council Meeting Notes

September 15, 2017

Attending from the council:
JP Batmale, Oregon Public Utility Commission (by phone)
Michael O'Brien, Renewable Northwest
Adam Schultz, Oregon Department of Energy
Frank Vignola, University of Oregon
Dick Wanderscheid, Bonneville Environmental Foundation
Erik Anderson, Pacific Power
Les Perkins, Farmers Irrigation District
Suzanne Leta-Liou, SunPower

Attending from Energy Trust:
Amber Cole
Matt Getchell
Jeni Hall
Andy Hua
Jed Jorgensen
Corey Kehoe
Judge Kemp
Steve Lacey
Dave McClelland
Dave Moldal
Connor Morrow
Lizzie Rubado
Zach Sippel

Others attending:
Brandon Adams, North Coast Electric
Heather Beusse Eberhardt, Energy Trust Board of Directors
Megan Craig, Oregon Solar Energy Industries Association/Solar Oregon
Alan Meyer, Energy Trust Board of Directors
John Miller, OSEIA
Richa Pondyal, 3 Degrees
John Reynolds, Energy Trust Board of Directors
Jason Zappe, Portland General Electric

1. Welcome, Introductions and Updates

Jed Jorgensen convened the meeting at 9:30 a.m. The agenda, notes and presentation materials are available on Energy Trust's website at: https://www.energytrust.org/about/public-meetings/renewable-energy-advisory-council-meetings/. Jed will preside for Betsy Kauffman going forward.

2. Low-to-Moderate Income Solar Update

Lizzie Rubado, renewable energy program strategies manager, is the lead on the sector's effort to serve low-to-moderate income residents that began last fall. With funding from a U.S. Department of Energy grant, Energy Trust and the Oregon Department of Energy started a three-year effort to investigate barriers and solutions to increase access to solar energy for lower- and middle-income customers in Oregon. Oregon is one of six states working on this issue under this grant, providing an opportunity to learn with and from other states as we perform this work. This work is also supported with research from Lawrence Berkley National Lab and the National Renewable Energy Lab.

Energy Trust is working to to establish a strong stakeholder engagement process to inform this work and ensure that we heard from low- and moderate income communities about their needs, experiences and solutions. Zach Sippel, renewable energy project coordinator, created a non-Energy Trust website for information about this work at www.imisolaroregon.wordpress.com.

The stakeholder engagement process kicked off in January 2017 with a road show, a series of listening and needs gathering workshops with community organizations and residents. Joining

Energy Trust were representatives from the Oregon Department of Energy, Sustainable Northwest, Spark Northwest and the Oregon Public Utilities Commission. Representatives traveled to Roseburg, Redmond and Hood River to provide information to community groups about the current status of community solar rule-making, efforts that are underway in other states, and to gather ideas from the public prior to developing a strategy. Another listening session was held in Portland at the Immigration and Refugee Community Organization, with 143 individuals from agencies, affordable housing developers, clean energy and environmental groups, and residents in attendance.

A stakeholder process was built on these outreach efforts. From there, a work group was established to look at the state and where needs can best be served with solar. There are 20 member organizations involved. Of these, about one-half are community based, providing direct services to low- and moderate-income customers. The work group is investing efforts and resources to support the participation of groups that may often be underrepresented. With the grant funds, the work group has been able to compensate some of the community organizations for their time and expertise. The work group is incorporating Energy Trust's Diversity, Equity and Inclusion Initiative efforts in planning and listening sessions and going forward.

The objectives of the work group are to develop an inclusive process to address solutions for low- and moderate-income communities. This includes building relationships with community based organizations; increasing understanding about topics related to low- and moderate-income solar, including affordable housing, low-income energy programs, solar project finance and resiliency; and informing the development of a LMI solar strategy for Oregon

For the past three months, the group has worked through a variety of different topics in depth, including workforce development and diversity, community engagement, opportunities in affordable multifamily housing, resiliency and solar plus storage, and integration and co-benefits with existing energy assistance programs. At a recent meeting, the work group explored the risks and opportunities associated with supporting low-income solar using weatherization or energy assistance funds. There are complex arguments to be made for and against this approach, and the conversation with the work group was insightful. The work group will talk about financial models in October.

Work group discussions will drive the development of a strategy with prioritized recommendations, which is a deliverable under the grant. A first draft of this strategy is expected in December and will be followed by gathering stakeholder feedback.

While Energy Trust is facilitating this work, the strategy will not be an Energy Trust low- and moderate-income strategy. However, we hope to see opportunities where Energy Trust can perform meaningful work down the line. This strategy will not include advocating for policy changes, but it will be examined for policy barriers in a research and reference capacity. After strategy development, an implementation plan should come in mid-2018, and then work will begin to spread the identified initiatives throughout state.

Dick Wanderscheid: This is a vexing problem. Bonneville Environmental Foundation has been working in this space for two years and has received grants to test models. The reality is that this problem is hard to solve. Other states have attempted, some more successful than others. However, the beauty of the process is the people at the table. There are people engaged with energy issues that haven't been before, and it all started with community solar rule making. Therefore, I think the results are going to point to some areas we need to fix. With electric rates in the Pacific Northwest, or at least in Oregon, it is difficult to make a business case until we know the value of solar and what is going to happen with community solar in both program implementation and the low-income administrator. However, we should be well poised when final a program comes out. It is frustrating for us because we have been working in this space for a while, know the barriers and are trying to bring people up to speed on this complex process. I commend Energy Trust for bringing this group together and being committed to coming up with a product to help implement these ideas.

Alan Meyer: Is the group open to the possibility that this just isn't meant to be? It seems to be like Mercedes trying to figure out how to sell cars to low-income folks, when those folks are focused on food and basic needs rather than buying a high-end luxury car.
Lizzie Rubado: No, I don't think this group believes that this is not meant to be. I think there is a commitment on the part of the work group members to figure out how to make it work. This group, and this effort, is looking at solar solutions across the board—not just rooftop solar for single-family homes. When you look at the greater landscape of opportunities to serve those in lower-income communities with solar, you can see that there are many opportunities, including community solar, affordable housing, organizations that provide services to lower-income people, and even the workforce and education piece. I believe, and I think most work group members also believe, that there are solutions that can work.

Les Perkins: I have been on the Housing Authority board in the five county region for development of low-income housing, and this has been a struggle all along to figure out how to incorporate solar. Affordable housing projects have failed in the past or experienced significant issues because of cheap construction and housing that's not on par with what's in an aggressive marketplace. Our board sees the need to invest in these projects for the next 50 years, and solar should be a part of that.
Alan Meyer: But the other obvious answer is the groups that are using that kind of time horizon are the utilities. If they couldn't do it, that is the other extreme.

Dick Wanderscheid: The community solar rules are mandating low-income carve out, and we don't know how the rules are going to work. We have identified two or three models that to implement, so it is doable. It is encouraging that there is movement to find a way to help comply with community solar rules that say every project has to have 5 percent of low- and moderate-income and the overall program has to have 10 percent. That is something we have to figure out. Other states have mandated that utilities get involved. Colorado came up with a mandate where utilities can be involved, but we are a long way away from that right now.

Michael O'Brien: My fears have been allayed after Lizzie's presentation. It sounds like you are really trying to listen to what people need. In past conversations, it sounded like we were telling people what they should want rather than us listening to what they need. In the conversations around the use of money going to customers who couldn't pay their bills and the possibility that some of those funds could go to low-income solar, can you characterize how funding has been justified?
Lizzie Rubado: There are two primary categories of low-income energy assistance at the federal level that trickle down to the state level. First, one pot of money is dedicated to weatherization for low-income energy solutions, and some of the Public Purpose Charge goes to supplement that. Second, the majority of funding goes to energy assistance for emergency situations, where low-income customers have had or are at risk of having power shut off or losing heat during the winter.

In the conversation about the appropriateness of integrating solar into these programs, the greatest sensitivity is about adding solar to the emergency energy assistance programs. Emergency assistance funding provides a vital service when people are in dire need, and there is greater demand is greater than the budget—yet are very cheap to administer. Advocates for making solar part of that program see an opportunity to provide assistance with a longer shelf life. Instead of a one-time payment to help with arrears or emergencies, the funds could assist with a community solar project that would lower bills for years. Many customers have to use assistance dollars year after year, and many of them assistance indefinitely because they are seniors, have a disability or are in a permanent low-income situation.

Lizzie will provide periodic updates on the work and draft strategy.

3. Draft 2018-2019 Action Plans

Jed presented an early draft of the 2018-2019 Budget Action Plans with numbers to follow next month. He outlined the budget schedule and introduced Director of Communications and Customer Service Amber Cole to review the process. The budget cycle began in July and included forecasting work with the utilities. Program action plans are in the draft stage and will be circulated to stakeholders for feedback. The public comment period will begin on November 1 with a deadline of November 17. The 2018 budget process will conclude with a vote at the December 15 meeting of Energy Trust's Board of Directors. Amber asked the committee to provide input to Energy Trust staff contacts or to Energy Programs Director Peter West by November 17.

Amber reviewed the focus areas and associated themes for all Energy Trust programs. The budget themes support Energy Trust's core mission to achieve energy efficiency and renewable goals. Budget themes are to improve planning and budgeting processes, prepare for future changes and opportunities, expand customer participation, and apply a diversity equity and inclusion lens to activities.

Jed summarized the budget review committee's outreach to Renewable Energy Advisory Council, Conservation Advisory Council and the board. One thing that surfaced from these interviews was that people wanted a refresher on their role in the budget process. One of the overarching goals for the budget process is to maintain transparency as an organization. Energy Trust looks to advisory council members for feedback on whether we are moving in the right direction.

Jed provided an overview on the Other Renewables program and said its action plan is about 95 percent the same as the past three years. Solar is in a period of rapid change.

Suzanne Leta-Liou: Can you remind us the total renewable energy budget versus a portion of the budget for Other Renewables and the portion of the budget for Solar?

Jed: Numbers will be covered next month. The budget totals approximately $14 million dollars in new revenue. The split over time has tended to be 60/40 Solar. This year will likely be closer to a 50/50 split. Because the Other Renewables program has been very successful in deploying funds, there is less money rolling over into the Solar program.

In 2018, the Other Renewables program plans to continue project development assistance and installation incentive support, continue to focus on biogas and hydropower opportunities while remaining open to other technologies, and continue project optimization efforts with operational facilities.

In 2018, there will be fewer renewable energy incentives, grants and tax credits in the market. We also expect continued decreases in avoided cost prices available for qualifying facilities and continued demand for biogas for vehicle fueling and pipeline injection due to new environmental commodity markets

All projects will be impacted by the reduction in grants. Net-metered projects are not impacted by avoided cost changes but Qualifying Facility projects will have higher above-market costs. Energy Trust will have to provide more funding into project installations in the absence of other grants.

Michael O'Brien: What are the new emerging markets?
Dave Moldal: Renewable Identification Numbers is driven by California's Low Carbon Fuel Standard Program and Oregon's Clean Fuels Program. These are all non-energy attributes that can be monetized at a much higher value than the actual commodities.

Jed Jorgensen: We are looking at expanding participation by continuing to offer competitive opportunities for projects to apply for installation incentives focused on irrigation hydropower and net-metered biogas installations. We are seeing new districts added into irrigation modernization. We are performing additional outreach to water resource recovery facilities, and there is a set of smaller facilities that are looking at net-zero energy use through solar and/or biogas opportunities.

In a first phase of irrigation modernization work, Energy Trust is performing an assessment of benefits an irrigation district can uncover by piping a canal and turning it into a pressurized pipe. That assessment provides a system improvement plan that lays out opportunities. The first step in this planning process doesn't get us to the design of the hydropower project, but to where it makes sense to have a project. The second stage is to determine how to plans to the design process and implementation.

Energy Trust is deepening our relationships with water resource recovery facilities to offer both Other Renewables opportunities and energy-efficiency upgrades.

Jed reported on the project optimization and evaluation work that Energy Trust has performed over the last year. At the end of 2016, Dave Moldal ran a request for proposals to evaluate some facilities that received Energy Trust incentives. We looked at three projects to identify areas with room for improvement.

Energy Trust will continue to manage Renewable Energy Certificate (REC) delivery and work to improve reporting capabilities to reduce time spent responding to data requests.

Michael O'Brien: Is there some problem with the work on REC delivery, or is this administrative work you're performing?
Jed Jorgensen: With custom projects, there are a set of projects that were installed prior to the REC market and we have been working with utilities to see if we need to go back and have those projects registered in the Western Renewable Energy Generation Information System (WREGIS). The answer for some projects was affirmative and not for others. We already have a set of facilities to ensure the REC registration transactions.

Dave McClelland thanked the Renewable Energy Advisory Council for its feedback during the August meeting about whether Energy Trust should concentrate efforts in the residential market or on the commercial market. The results slightly tilted to the residential side, but the overall feedback was to stay on the current course. This will be included in the budget action plan. The budget is smaller in 2018, and there will be fewer projects with substantially higher above market costs for residential projects. We also asked how often to communicate about our plans and about legislative information that we receive, and feedback was to communicate early but stay flexible. The council also expressed that the non-incentive work we do is valuable. Next year will be critical to support businesses and trade allies. Quality standards and consumer protection are important. Ideas about a Solarize 2.0 for residential projects also emerged from the feedback.

We also heard from Renewable Energy Advisory Council that we need to be ready for what is coming next by getting more custom and targeted deployments. With new technology coming into the market, we need to maximize the value of solar systems. Other ideas included storage, peak management, smart inverters, community solar, equitable access to solar and expanding participation.

Dave presented an overview of the 2018 Solar action plan, which aims adapt to market changes, continue focus on soft-cost reduction and industry development, focus on solar projects with higher utility value, focus on broadening access to solar, and prepare for a future where solar incentives are less standard and more custom or targeted.

While the current trend for next year shows above-market costs rising, we believe that above-market costs will decline in the long run. The timeline may be pushed out for residential, and it is still happening in the commercial market.

Dave outlined how the Solar program plans to adapt to market changes. Staff plans to moderately increase residential and commercial incentives after RETC expiration; refocus and simplify standard commercial incentives and target smaller commercial projects; implement a streamlined custom incentive track to support larger or higher value projects; partner with utility grant programs; and allocate a small portion of the incentive budget for more targeted efforts. For the residential side, there is some above marke- cost headroom. We are looking at more incentives and would like feedback.

Alan Meyer: Have you considered maintaining the incentive where it is and wait to see whether it materialized so that you're not overpaying in winter months?
Dave McClelland: Yes, we will watch this topic very carefully as legislative concepts emerge. We should know our direction by January or February 2018.

A portion of the budget will be devoted to commercial small projects. About two-thirds of our commercial projects make up about a third of the commercial budget. Standard commercial incentives are focused on those projects. The intention is to reserve funds for a more streamlined custom process, which would allow us to target some larger projects or higher value projects. We have received the green light from the OPUC to co-fund projects with the utility grant program, but we need to be careful about not overfunding projects.

Erik Anderson: If a commercial project is over the threshold, would you fund up to the available amount?
Dave McClelland: We currently have a hard cap at 100 kilowatts for customers of Pacific Power and 250 kilowatts for customers of PGE. We have received feedback from the council and trade allies. We need to balance the incentives and ensure that we are supporting projects that have above-market costs.

We would like to allocate a small portion of the incentive budget for some targeted efforts. On the commercial side, we are looking at a standard option and opportunities to be more targeted in our custom track. On the residential side, we'd like to consider some options where we have above market headroom.

In 2018, we plan to continue to collaborate with utilities on demand-side management efforts and provide project development assistance to customers and community members in scoping solar + storage for resiliency. In addition, Jeni Hall has been testing project development assistance for customers for renewable energy projects.

Michael O'Brien: What tools does Pacific Power use to identify where solar is a good fit for the load curve?

Erik Anderson: It's pretty a traditional transition and distribution upgrade analysis to see when we've identified a capital upgrade, to check peak times and decide whether solar can help solve the problem. It isn't new technology, but a new way to look at the issue to see where solar might help.

In 2018, Solar program staff to explore and test incentive offering targeted at advanced solar systems that manage peak with controls and integrated storage or flexible loads. The program also plans to develop communication materials for customer interested in solar and storage.

John Reynolds: Is there a standard size of storage?
Jeni Hall: We're learning more about storage, and we will be able to answer that question going forward. Right now, the most common system of installation is the power wall.
Jason Zappe: We have received a fair number of systems that are essentially power walls. We have had almost 10 customers who want to use standalone batteries where there is no other existing generation on site and are all power walls.

Dave McClelland: Do those customers net meter?
Jason Zappe: Batteries don't qualify, so we're basically doing this outside of the net metering rules and all the customers have attested that it is backup only. We put them through the interconnection process because they are charging from the grid, but we're really just supplying them with an interconnection agreement and no compensation for any kind of backup because there currently isn't any method to do that.

Michael O'Brien: Is there any commonality between these people?
Jason Zappe: Some customers are in unreliable areas and have frequent outages, so they use the battery as backup.

Dave noted other areas on the horizon for 2018 are to provide broader access to solar by continuing work with stakeholders to develop strategies for low- and moderate-income customers and to support workforce diversity through outreach and sponsorships. We're also interested in exploring and testing an incentive offering targeted to moderate income-customers and opportunities for low- and moderate-income homeowners.

Heather Eberhardt: When I was at the solar conference, I heard a trend that the credit scores of solar applicants has declined in the last few years. As you're looking at the moderate-income customers, can you track that in your applications?
Dave McClelland: Part of exploring and testing this is to figure out how you measure the moderate-income customer and what qualifies. We have a Savings Within Reach program but need better data.

Alan Meyer: I'm pleased to hear we're looking more holistically at efficiency and renewable programs to explore how we can help customers more effectively reduce their costs and create more opportunity to look at the challenge outside of silos.

Michael O'Brien: Are community benefits identified by a certain group or is Energy Trust evaluating at what you think they might look like?
Dave McClelland: We're at the very early stage of consideration. We're interested in feedback on what community benefits should apply. If there are projects that align with our low- and moderate-income strategies, we'll be interested to explore those avenues. We've also been doing work with the City of Portland and other municipalities around resiliency.

Suzanne Leta-Liou: From my perspective, a lot of this is numbers play, so it's hard to give guidance to the extent that I don't have that information in front of me and you have a very limited budget.

There's also a fine balance between deploying projects to the best you can in the residential, commercial and low- and moderate-income markets and testing out new technology. I struggle with that given the current rate design and metering construct and that we're not getting storage to pencil in Oregon. I worry that a large part of the budget is focused on that. Given the constraints we have, would the funds be better spent deploying projects?
Dave McClelland: The numbers we have been using are at 3-5 percent of the total budget, so we're not talking about spending a large amount of funds. If we reduce volume by 5 percent, is that worth it and what is the trade off? We will be coming back with numbers next month. As of now, we're looking at less than $6 million in incentives for next year.
Jed Jorgensen: From my perspective, it's hard to learn without trying new things.
Dave McClelland: Sometimes a recession is a good opportunity to re-tool your business for the future. Similarly, we are expecting half the volume in projects next year. It allows us to do a relatively small push somewhere that could have a bigger impact on the market as you have the opportunity to grow that option.

Suzanne Leta-Liou: I noticed you're planning on some new custom incentives. Where does large commercial fit?
Dave McClelland: It would fall into the custom track. A challenge we've had this year, and the reason we had to implement a side path, is that we were getting projects at that scale with relatively low cost that were really pushing above-market costs. This custom track would allow us to look at projects in more detail that would confirm we're supporting projects that have above-market costs. It will be a balancing act because we're working with relatively small amounts of money and it won't be a continuous offer each month. For Pacific Power in particular, our budget is very constrained.

Suzanne Leta-Liou: So you're thinking of systems over 100 kilowatts?
Dave McClelland: It could also be smaller systems that bring other value, and any customers that wants to take both an Energy Trust incentive and a utility grant.
Suzanne Leta-Liou: Did the OPUC make a final decision on that?
JP Batmale: Yes, there was a request to clarify what constitutes a nonprofit, and a clarification on the rules around when the commission could approve incentives for a for-profit company. The outcome was that there could be comingling of funds when the entity receiving the voluntary funds is of a certain type of nonprofit. The utilities have a pathway for issuing exceptions to for-profit companies for new projects that are deemed to be in the public interest. For-profit firms can apply for these funds but need to be vetted by the utilities and approved by the OPUC.

4. Public Comment

There was no public comment at this time.

5. Meeting Adjournment

Jed Jorgensen adjourned the meeting at 11:30 a.m. The next scheduled meeting of the Renewable Energy Advisory Council is on October 25, 2017.