

## RENEWABLE ENERGY ADVISORY COUNCIL

Notes from meeting on March 13, 2013

### Attending from the council:

Thor Hinckley, Portland General Electric  
Glenn Montgomery, Oregon Solar Energy Industries Association  
Vijay Satyal, Oregon Department of Energy  
Tashiana Wangler, Pacific Power  
Robert Grott, Northwest Environmental Business Council  
Frank Vignola, Oregon State University  
Suzanne Leta Liou, Atkins  
Juliet Johnson, Oregon Public Utility Commission

### Attending from Energy Trust:

Chris Dearth  
Sue Fletcher

Jackie Cameron  
Betsy Kauffman  
Jed Jorgensen  
Thad Roth  
Lizzie Rubado  
Fred Gordon  
Rob Del Mar  
Dave McClelland  
Dave Moldal

### Others attending:

John Reynolds, Energy Trust Board of Directors  
Jess Kincaid, Oregon Department of Energy  
Caitlin Peel, Renewable Northwest Project  
James Campbell, Pacific Power

## 1. Welcome and introductions

Betsy Kauffman called the meeting to order at 9:30 a.m. No adjustments to the minutes were suggested. The minutes were approved.

Robert Grott provided information on the upcoming Future of Energy Conference.

Betsy announced staffing changes. Dave Moldal is now managing the Biopower program. His past experience includes pre-construction commercial wind energy development in the Midwest and Southwest. Lizzie Rubado has joined Energy Trust again and will be managing commercial solar. Kacia Brockman is now with the Oregon Department of Energy.

Vijay Satyal announced that for the last 11 years, the Oregon Department of Energy has been hosting the geothermal working group meeting. This year it will be held in Portland on May 15 or 16 after the American Ground Water Trust event. Bonneville Power Administration's energy-efficiency summit will be at the same time. The geothermal working group meeting is free and will include known speakers on geothermal focusing on direct use.

## 2. Oregon Public Utility Commission Performance Measures

Thad provided context on renewable performance measures for 2013. The performance measures are established by the OPUC and set a threshold by which regulators can look at the health of Energy Trust programs. They are a signal that intervention may be required to meet performance measures, and create clarity between the OPUC, staff and board. If there are any challenges in meeting performance measures, Energy Trust will be aware of those challenges throughout the year, not just on an annual basis. These measures are a floor for performance and Energy Trust is pushed for higher performance through stretch goals. Energy Trust reports annually on progress to achieve these measures.

The performance measures are outlined in the Energy Trust grant agreement with the OPUC. In 2012, renewable energy program measures were suspended for the sector with the expectation that new measures for 2013 would be established. The measures were suspended because of changes to state tax credits and an early understanding of declining budget availability. These two factors in combination meant that it would be difficult to meet the previously established goal of 3 average megawatts of new generation on a rolling average over three years.

For 2013, four performance measures were established and are classified by funding priority. Since mid-2012, Energy Trust worked with Juliet Johnson from the OPUC in developing these measures and values the work that all parties put into the process. Energy Trust believes these performance measures support existing strategies:

Performance measure 1—Market and Project Development Assistance. Energy Trust has offered this support for the last five years. This funding priority includes cost share funding of feasibility studies and other project development activities. The performance measure for this priority is a summary report of the annual results in this area. It will include information on market barriers that were addressed with these funds.

Performance measure 2—Standard Program Projects, including solar electric and small wind. The goal is to maintain a budget that allows these programs to be viable on an annual basis. The performance measure for this priority is 90 percent of the conservative generation goal. This equates to 0.66 aMW in generation for 2013. This is for installed projects operational in the calendar year.

Glenn: Is the performance measure 90 percent of total generation for all programs?

Thad: No, it is just for standard programs. Ninety percent of conservative generation goal is derived from standard solar and small wind.

Dave McClelland: By comparison, last year the total generation from the Solar program was 3.2 aMW. Large-scale custom projects accounted for approximately 50 percent of that total.

Glenn: Why is it set at 90 percent of the conservative goal?

Thad: This is similar to the approach on the energy efficiency side. The purpose of these measures is to serve as an early warning signal. We expect to achieve results beyond this measure.

Performance measure 3—Custom Program Projects. This includes larger projects, qualifying facilities and net-metered projects, such as agricultural biogas projects and hydropower projects. The performance measure is an average of \$40 per allocated MWh of generation. Not all projects need to be \$40; this is the average. This approach allows us to pursue a range of projects.

Tashiana: What do you mean by allocated? And if they received development assistance, is that included in the \$40?

Thad: This is essentially the Renewable Energy Certificate, REC, allocation that Energy Trust asks for over the term for which we are contracting with a project. When we provide an incentive for a project, we claim all the generation but we only ask for a share of RECs related to the percentage of the above-market costs that we are paying, which is typically less than the total generation. Yes, development assistance is included in the allocated project cost.

Performance measure 4—Innovative Projects and Custom Solar Projects. If Energy Trust is unable to allocate dollars to certain technologies, dollars can be allocated to pursue innovative and custom projects. The recent Black Cap solar project would be an

example, as well as the current Request for Proposal for solar projects in Portland General Electric territory. The performance measure is a report on the source of the funding and the criteria for selection. These fall outside of the standard Solar program.

Suzanne: What is the cap for the standard size?

Dave: Currently is it up to a \$75,000 incentive in PGE territory for a 75-kW project and \$30,000 in Pacific Power territory for a 40-kW project. We are finding that those caps are not generating sufficient interest for commercial solar. We are considering increasing the caps this year.

Frank: How will that last performance measure be measured?

Thad: Our requirement is that we report on the source and criteria.

Tashiana: Would that performance measure be an end-of-year look?

Thad: It can occur throughout the year. It would take an event to make funds available. We could also hold the funds until the next year. It is when we see a gap in our pipeline.

Glenn: Some of the performance measures have quantitative measures and some are reports. How do they roll up into your overarching metrics? Do they roll up into other metrics that are quantifiable?

Thad: We have goals related to our annual budget to achieve. Those goals are part of what we have said we will accomplish in budget process. We will also look to see if we meet generation goals from RFP processes. These OPUC performance measures are an early warning system that provide an alert that there are management challenges or structural changes in the market that impact program delivery and execution.

Glenn: Some of these will work better than others as a warning tool.

Juliet: Some are more qualitative. We see these performance measures as a good direction. We also see this as a first point that we are iterating from. As we see the reports we will learn based on the content.

Robert: Were the utilities party to the development of these measures?

Juliet: We shared the memo with the utilities. We did get some feedback. We will likely get more feedback through the year. We want to get the wisdom of this group as well.

Vijay: We cannot fund all custom projects. What are the criteria for how you will say no to projects?

Thad: The RFP process is the tool that we use.

Vijay: There are barriers identified through the project development assistance. What barriers are you conceptualizing there?

Thad: We are providing more comprehensive assistance this year. We will offer more comprehensive assistance for fewer projects. The goal is to get those projects to the place where they can go out and look for financing.

Thad said staff will be keeping an eye on several questions this year in relation to these new measures, including the amount of funds projected to be provided to mandated solar projects and whether the \$40 per allocated MWh for use with non-solar custom projects is appropriate or whether it should be reduced.

### **3. Wrap up and report on 2012; 2013 plans for all technologies**

#### Wind

Chris Dearth presented this topic. Energy Trust moved to an estimated production-based incentive for small wind utilizing a report from Wind Analytics, a New York-based company. Energy Trust bases the incentive on the production to motivate customers to capture best wind potential. The early experience is that this approach is working.

Wind Analytics also developed a wind map that is on Energy Trust's website. Customers can enter their address and get a sense of their rough wind potential. If they have good or excellent potential, Energy Trust will refer them to a trade ally contractor.

Energy Trust also joined the Interstate Turbine Advisory Council that developed a list of turbines authorized by members. The list aligns with Energy Trust's incentives and helps to promote and incentivize the turbines that are certified by an accredited testing agency and have a proven business track record.

Chris has met with Energy Trust trade ally contractors around the state. Three projects completed in 2012. The projection for 2013 is that the industry nationwide is stressed. The U.S. business climate hasn't been good for small wind companies, and some U.S. companies are focusing their efforts abroad because of high feed-in tariffs in some countries. Energy Trust is seeing greater interest in midsize 50-kW machines at larger farm operations.

Energy Trust is currently working on a project with the Umatilla Tribe. In addition to the project's generation, it will be an educational demonstration site for school children. There is also a 10-MW community wind project under development in southern Oregon.

Suzanne: Did Energy Trust support the Patu wind project?

Betsy: No, the project developers did not request an incentive, because the developer wanted to retain the RECs.

Suzanne: Is that a challenge for Energy Trust when working with some developers?

Betsy: Generically speaking the fact that we take RECs can create challenges. Customers want to be able to make green claims and sometimes want to acquire revenue from the sale of RECs. In these cases they see that they are giving up something to get our incentive. Some project owners do walk away.

Thad: There have been a number of community-scale wind projects installed since 2007 that never talked to us. Those projects can find investors other ways.

Frank: You didn't provide project development assistance to Patu?

Betsy: No we didn't provide any assistance except for agreeing to give an incentive.

Vijay: They were getting a loan as well. They were good at finding resources.

James: The REC market has changed, too.

John: Who assists with certification?

Chris: We work with the Small Wind Certification Council and Inter-tech, which are testing organizations. Once they are certified we know that they are technically reliable. We also look to see the business practices of the manufacturers. The council has been in existence for over a year.

Roger: Who is going to own the 10-MW community wind project?

Chris: It will be privately owned.

Robert: Do you work with the U.S. Department of Agriculture?

Chris: We do, with Rural Energy for America Program grant coordination. I hear that they have fewer grants this year and less money. We encourage project owners to submit applications.

Chris continued: For 2013 strategies, Energy Trust will continue marketing with trade allies. Trade allies are installers but not necessarily marketers. Energy Trust will look to collaborate with distributors from out of state as well, and explore midsize turbines 50 kW for larger farm operations.

Juliet: Is there a target for generation this year?

Chris: We are looking to place as many projects as we can. The generation goal is small.

Suzanne: What is the target market?

Chris: They are primarily family-run farms with available wind resources. Some have larger energy demands than a 10- or 20-kW size system would fulfill.

### Hydropower

Jed Jorgensen presented this topic. Most hydropower projects occur where water is being used for another purpose. There has only been one Energy Trust hydro project on a natural stream in the last five years.

Four projects were completed last year and they differed in terms of size. All of the projects were in Pacific Power territory. The projects totaled 1.17 MW of capacity and Energy Trust incentives were \$675,000. In 2012, Energy Trust also made commitments to two new projects that when complete will bring in 260 kW in capacity. Committed incentives for those projects total \$472,000. In 2012, Energy Trust also worked on project development assistance for eight sites.

Hydro projects still face challenging fundamentals, such as low power prices and dwindling federal tax incentives. Hydro projects also offer advantages, such as higher capacity factors, 24/7 running times, grants for projects providing water savings to benefit in-stream flows, and some projects can be net-metered.

Fish passage issues continue to be a concern. The fish passage issue doesn't usually come at the site of the hydro project but at the original place where the water is diverted. These projects can be required to address the fish passage issues before moving forward. There is a Governor Kitzhaber working group considering this issue and potential for legislation. Resolving this issue could allow some projects to move forward. Energy Trust is also looking at county permitting regulations to see if there is an Energy Trust role to assist with permitting barriers. There are new technologies and opportunities with low head and municipal applications. These will take more analysis and will require costs to come down.

Robert: Which companies are developing these new technologies?

Jed: Lucid, Natel and Hydro Volts are examples.

Vijay: What is Energy Trust's experience in county permitting issues?

Jed: We provide an understanding of the landscape, and can offer education for counties.

### Geothermal

Betsy Kauffman presented this topic. Energy Trust committed resources to one project last year, Oregon Institute of Technology's second geothermal project. The Energy Trust incentive is \$1.55 million for this project that is 1.5 MW in capacity.

Geothermal challenges are similar to hydro, but there are some additional challenges unique to geothermal. Geothermal projects require greater upfront resources for testing and drilling to

assess the resource. This translates to greater risk at the project start. Another issue is there is no benefit given to the developers in recognition of the fact that geothermal provides base load. Geothermal technology costs have also not dropped significantly.

Geothermal has several strategic advantages for Energy Trust. It has a high capacity factor; these projects put out a lot of power. Oregon has geothermal resources and it makes sense to take advantage of them. In addition, there are funding opportunities to promote geothermal and some projects can take advantage of these opportunities.

In 2013, Energy Trust will deploy project development assistance to these projects to be ready for medium-term opportunities. Technology advancements are likely to impact the market as well. One is the Kalina Cycle technology, which uses a different working fluid that works well with the lower temperature resources we find in Oregon. Another technology development is the use of solar thermal to boost the heat of geothermal water. Energy Trust would like to promote the sharing of information between project owners although that can be difficult in a competitive marketplace.

Frank: Does transmission cost affect project viability?

Betsy: No more so than any other resource. Wind is similar. In terms of market barriers this isn't a primary issue. They do look for proximity to transmission.

Juliet: Do well drillers ever happen upon hot water?

Betsy: We are working with a project now where that happened, but the water resource only exists in certain locations.

Juliet: Is there a dry hole risk?

Betsy: Yes, but the general area that the resource is located in is known.

Robert: Alta Rock is researching the new technology known as Enhanced Geothermal Systems, EGS, looking for hot rock where water can be injected and heated up.

Betsy: There is only one I know of in Oregon. Alta Rock received a \$25 million U.S. Department of Energy grant to develop the technology. It is a fascinating technology. It is not where we need it to be in its development cycle yet for Energy Trust to get involved.

### Biopower

Dave Moldal presented this topic. Six Energy Trust biopower projects were highlighted as projects that achieved commercial operation in late 2012 and early 2013. These projects included: Wallowa Integrated Biomass Energy Project, Revolution Energy Solutions – Forest Glen Oaks, Farm Power Misty Meadows, Pendleton Wastewater Treatment Plant and Medford Wastewater Treatment Plant. JC Biomethane is expected to achieve commercial operation this year. It is a 1.55-MW qualifying facility biogas project that will receive a \$2 million Energy Trust incentive. The project is on track to complete construction in June.

Robert: What is the fuel source for the JC Biomethane project?

Thad: It is dairy and agricultural waste and organic processing waste.

Dave continued: Energy Trust is being contacted by many wastewater treatment plants in Oregon about their interest in potential biogas projects. Of the 28 wastewater treatment plants in Oregon with anaerobic digesters, 10 are currently generating electricity from biogas. Energy Trust is expecting applications this year from some wastewater treatment plants pursuing development of biogas-powered cogeneration units. Calls have also been coming in from

industrial sites dealing with liquid and solid waste streams. There is also interest in woody biomass projects, particularly in Central Oregon.

Energy Trust directed a survey to wastewater treatment plants in Oregon with anaerobic digesters. The survey will close on March 18 and is being conducted in coordination with Oregon Association of Clean Water Agencies, ACWA.

Juliet: Will the survey results be made available?

Dave: Yes. The results will be posted on ACWA's website.

Dave continued: Energy Trust's biopower objectives for 2013 include characterizing key components of successful project development for wastewater treatment plants and agriculture sectors, funding studies to highlight the business case for biogas development at food processors, and participating in the state Forest Products Energy Program to support the development of small scale combined heat and power, CHP, systems.

A research report was published last year by the Water Environment Research Foundation titled "Barriers to Biogas Use for Renewable Energy." This report found that less than 10 percent of wastewater treatment plants nationally have installed equipment needed to generate electrical or thermal energy using biogas. The research found that the barriers are economic and not based on technological feasibility, and that decision-makers perceive that it takes too long to obtain a return on investment and there are higher priority demands for limited capital.

Frank: What is happening in improvements in technology?

Dave and Thad: Combined heat and power units are becoming smaller and more viable. There are more engines and choices available. In Oregon we have good experience with internal combustion engines. This will likely expand the projects that are viable for us.

### Solar

Dave McClelland presented and introduced the team of Rob Del Mar and Lizzie Rubado. He said 2012 was a big year in term of paid projects. It was a small year for solar water and pool projects but the program broke a few milestones last year.

Suzanne: What are the aMW of solar generation in 2012?

Dave: This translates into 3.28 aMW. The OPUC performance measure for 2013 is considerably lower, 0.66 aMW, equivalent to approximately 5-6 MW of capacity.

Dave presented a graph, 10 years of Solar at Energy Trust. The last three years have been very big in residential and commercial. Part of the reason for last year's large capacity was three utility-scale projects. Two of the utility scale projects were in Lake County, an area that is proving to be a good solar resource. The projects have great tracking systems and exceptional production for that capacity.

The biggest trend in residential solar is a shift to a third-party model, in which a third party owns the system and leases it to the homeowner. Energy Trust funded a similar capacity as 2011 but did see numbers start to fall back because Energy Trust dropped its incentives dramatically for both utilities. There was a good pipeline and a large number of projects were installed but as the year went on, we saw fewer and fewer applications. Another note is that 60 percent of projects coming in were third-party applications in which the system is leased to the homeowner. So far in 2013, the percentage of third-party applications has gone up even higher.

Energy Trust continues to see the cost of solar come down. The first half of the year was a competitive time in the market and there was almost a dollar/watt drop in prices at this time. Prices stabilized in the second half of the year, and the market was less competitive because Energy Trust incentives dropped. As Energy Trust shifted to smaller projects in commercial, staff started to see signs of lower cost systems coming in as well. RFP submissions are coming in as low as \$2.50 per watt.

In December 2011, Energy Trust implemented stepped incentive for Pacific Power and did the same for PGE in March 2012. The market was running too hot and as costs came down, Energy Trust incentives were too high. Third-party vendors came into the market in 2011. In the first quarter of 2012, 400 projects came through, which is two to three times as many as previous first quarters. Energy Trust reacted by lowering incentives. Stepped incentives proved a powerful tool in managing budget but it meant the program cleared out its pipeline.

Juliet: What is a stepped incentive?

Dave: We announced ahead of time we were offering our current incentive for a certain allocation of funding. Once we hit that funding level, it automatically triggered a step down in the incentive rate. We are looking at extending those steps now that things have slowed.

Dave continued his presentation on solar water heating: Cost reductions in solar electric caused a large shift from solar water heating to solar electric. Costs of solar water heating have gone up while costs of solar electric went down. State and Energy Trust incentives are weighted toward solar electric, so last year was a slow year in solar water heating.

To help, Energy Trust implemented some changes in the solar water heating offer including a simplified application process and a simplified flat incentive. Energy Trust is making efforts to make incentives a more standardized process, similar to a rebate. Staff found that solar water heating numbers were considerably lower than the state Residential Energy Tax Credit solar water heating applications, which signifies that the Energy Trust incentive wasn't worth the hassle.

Rob: I'd like to mention that in 2013 we are in a situation where we have to reduce the incentive even more because of gas cost-effectiveness. We are trying to trim administrative costs for trade allies but also unfortunately have to reduce incentives as well. We are also starting to see the third-party model in commercial solar water heating so it will be interesting to see if that works.

Vijay: Is that an approach learned from solar electric?

Dave: Yes, it is a commercial solar electric vendor who is going back to solar electric customers and offering solar water heating as well.

Dave continued his presentation on 2013 strategies: We've talked here before about the renewable energy fiscal cliff. We peaked at a \$17 million budget and our budget is now lower than \$10 million. This graph makes it look like this is going to hurt this year, but really this already happened. 2012 was the year that it hit, which indicates how much there is a difference between profit and loss and an actual activity budget. Each year can be broken out by previously dedicated versus dedicated and paid the same year. In 2012 a large amount of incentives were dedicated the year before in 2011. The majority of those were custom projects. Fiscal cliff was really 2012 and we reacted by lowering our incentives and we made it work. What it means for this year is that our pipeline is much smaller.



Suzanne: Is that like a couple million of previously dedicated projects carried over from 2012 to 2013?

Dave: Yes, about \$2 million.

Dave: 2012 was a great year in terms of installations and payments but tough in terms of new projects for solar contractors. Because of that, this year we have a small increase in available funds. We have a small pipeline at this point but we are set up for a little bit of growth this year versus last year. We have \$1 million set aside for an RFP and we have the flexibility to switch funds between residential and commercial as we see opportunity.

James: Do you have an estimate of what you anticipate the MW to be for that?

Dave: All together, part will be dedicated and paid or part will be dedicated then paid next year, it's hard to know the split. Our goal is about 5-6 MW and we think we have the funding to support that goal.

Juliet: What are the non-incentive dollars that will be spent?

Dave: The budget here is our incentive budget but we also have program costs and a small amount of funding is allocated for those other costs.

#### Commercial Solar

Dave: In the first quarter of 2013, the non-residential solar electric market has been incredibly slow. We had to shift down the incentive last year and are finding that this is not enough to move projects at this point. In quarter one there are only three commercial projects so far. For Pacific Power, this will most likely extend beyond the first quarter as there is almost no take at current levels.

However, we have solutions to getting things moving again. There are plenty of above-market costs that we are not covering at this point. We are looking at possibly increasing the caps per customer to allow for larger systems than we presently do or shifting up the incentive rates for smaller projects with more above-market costs. It's easier to ratchet incentives down than it is to shift them back up. Questions are: Would customers drop out and come back at new rate? Is there a perception issue?

We do think that if we are going to meet the OPUC measure this year, unless we shift to all residential, we are going to have to consider increases in commercial incentives.

Tashiana: When you look at historical trends, is this drop-off directly correlated to when we reduced our incentives?

Dave: Yes, although there were other factors in the market, in terms of the Business Energy Tax Credit, etc. From a new applications standpoint, 2012 was the lowest year we've seen in a long time. We had difficulty in securing funding. We saw all this hit in 2012 and that trend is carrying this forward in addition to us having to ratchet back the incentive.

Vijay: Do you think your stepped incentive rate created an additional hold back and created a steeper decline in applications that you thought? Did dropping the rate impact the market?

Lizzie: Absolutely.

Dave: In the first half of the year, our incentive drops were smaller than the price reductions. For the rest of the year, the incentive drops were bigger than what we were seeing in terms of price drops.

Robert: Was it an option to just shut the program down?

Lizzie: There's always that option but we've heard from our trade allies and contractors consistently to not shut the program down. We would not want to put the message out there that there is no help from Energy Trust.

Dave: At a particular incentive offering, there are customers out there that are willing to take it. The more you ratchet your incentive up, the more customers you'll catch.

Suzanne: Do you structure the rates such that you are intentionally not thinking there will be any wiggle room for more custom projects or do you structure to allow wiggle room?

Dave: In terms of custom projects, that's not just a solar question, but a renewable energy-wide question. There are some particular circumstances where other non-solar projects dropped out in PGE that allowed the RFP to happen. We're not sure when those circumstances will come up.

Suzanne: So the answer is to assume there will not be room left for custom projects?

Dave: We look to our performance metrics to answer that. The second piece of the renewable energy performance measure is the standard program and the fourth piece is whatever is left over, which indicates a clear priority.

Thad: This strategy is not a change for us. The only time we've allocated dollars to custom is when we have unexpectedly free dollars. It's always been overarching policy that we make sure we fund the standard programs first. We've heard from the board and stakeholders that they would rather see us do many standard projects rather than a handful of custom projects. It's tougher for us to do large custom solar projects.

Tashiana: When you're talking about non-residential, what size are the projects?

Dave: Standard offer goes up to 40 kW in Pacific Power territory and 75 kW in PGE territory.

Tashiana: Before you adjusted incentives in 2012, what was that range?

Dave: We used to support projects up to 200 kW before we adjusted. We are considering changing current caps to once again support larger projects. We're considering a higher rate than the current offer for smaller projects and a lower incentive rate for larger projects, and a cap that supports larger projects than we currently do.

Dave: The flat incentive is simple and nice to talk to customers about, but there really are economies of scale. Above-market costs vary based on large versus small projects so we are considering an incentive that starts high and goes low.

Tashiana: What's your process for determining these changes?

Dave: We are discussing this internally and then a proposal would be developed that will go to Thad and Peter. We are hoping to act soon or we are going to end up with no commercial projects this year.

Lizzie: There's a substantial amount of internal analysis that's happening. We have been soliciting information from trade allies about up-to-date pricing. Looking at the financials, what will it take to stimulate the right amount of activity? What's the right amount of the above-market cost to cover? Who is our target market? We'll be soliciting additional input from the trade ally roundtables next week, and giving the contractors a heads up that there may be changes coming. If possible, we would hope to make a change sometime in mid-to-late April.

Tashiana: If customer questions about solar would be helpful, we can provide that information.

Lizzie: That would be great.

Dave: We've learned a lot from our RFP process and it's possible we could have a large project installed this year, but not likely. Currently we are pretty comfortable with our rate of acquisition with residential projects and want to provide stability in that program.

Vijay: I wonder if during the RFP, you'll be able to adjust for size. Any premonitions about how a larger project might show a better plan? Do you have ways to offset the size advantage?

Dave: About half of our scoring is cost based, either the cost of our incentive or the actual cost of the systems on a generation basis. The proposed projects, which are from 440 kW to 10 MW, have similar installation costs, but other costs are different. The other half of the criteria is the quality of the project.

Thad: I want to make a general comment that in past meetings, I might have made it seem as if the world was ending for renewables. I just wanted to give a heads up that I may not have had it quite right. Currently, we have eight other applications for custom projects in PGE and Pacific Power territories, and a total 12 projects we are reviewing right now. We are back to where we might have a pipeline and the progress is encouraging. The projects that do get funded will likely be funded. These projects will come to the May Renewable Energy Advisory Council meeting.

#### **4. Public comment**

No public comment.

#### **5. Meeting adjournment**

Betsy thanked council members for their participation and adjourned the meeting at noon. The next full council meeting is May 1, 2013.