Board Meeting Minutes—120th Meeting

May 22, 2013

Board members present: Rick Applegate, Ken Canon, Dan Enloe *(by phone)*, Mark Kendall, Jeff King, Debbie Kitchin, Alan Meyer, John Reynolds, Anne Root, Dave Slavensky

Board members absent: Anne Donnelly, Roger Hamilton, Julie Brandis, Lisa Schwartz (ODOE special advisor), John Savage (OPUC *ex officio*)

Staff attending: Margie Harris, Ana Morel, Hannah Hacker, Debbie Menashe, Amber Cole, Steve Lacey, Peter West, Sue Meyer Sample, Fred Gordon, Jessica Rose, Scott Swearingen, Jed Jorgensen, Thad Roth, Chris Dearth, Jackie Cameron, Julianne Thacher, Betsy Kauffman, Dave Moldal, Elaine Prause, Sue Fletcher, Spencer Moersfelder, Phil Degens, Adam Bartini, Pete Gibson, Denise Olsen, Shelly Carlton, Alison Ebbot, Michelle Spampinato, Rachael Brown, Oliver Kesting, Susan Jowaiszas, Dan Rubado

Others attending: Kendall Youngblood (PECI), Juliet Johnson (OPUC), Jim Abrahamson (Cascade Natural Gas), Evan White (member of public), Jim Scheppke (member of public), Jim Fitzpatrick (Fluid), Steve Johnson (Central Oregon Irrigation District), Matthew Braun (Howard S. Wright), Mark Perepelitza (SERA), Renee Lovelane (Gerding Edlen)

Business Meeting

President John Reynolds called the meeting to order at 12:16 p.m.

General Public Comments

John Reynolds called for general public comment. Jim Scheppke and Evan White, both Salem residents, brought forth comments.

Jim and Evan approached the board to raise a concern. First, Jim described recent upgrades to his home, which Energy Trust incentives helped support. He installed a solar electric system and insulation improvements after receiving recommendations from his Home Energy Review. He said his Portland General Electric bill was only $14.63 last month, and mentioned his appreciation for all the help he received from Energy Trust.

Jim described their concern with Energy Trust being a premium member of the Salem Area Chamber of Commerce and distributed a handout he had accessed from the chamber's website. He stated that it is their position that Energy Trust's membership is inappropriate. Jim highlighted the handout's Message from the CEO statement, which he said speaks to the organization's political activity, and noted several mentions of political action in the handout. Jim mentioned one of the chamber's primary activities is advocacy including a citizen candidate academy, and it is very active politically in the City of Salem.

Jim: The chamber is as active as Republicans and Democrats and I'm sure Energy Trust doesn't align with them. Because we pay the public purpose charge, we don't feel good that even in a very small way we are contributing to an organization we don't agree with. I happen to be active in opposing construction of a third primary bridge in Salem, which the Salem Area Chamber of Commerce is actively supporting. They are working against my organization and when I see that [public purpose charge] fee on my bill, as small as it is, I have to bring to your attention the fact that we think it's inappropriate for them to receive Energy Trust support.

Evan mentioned that several weeks ago his home was inspected by trade ally Abacus Home & Building Energy Audits who recommended weatherization improvements. Evan has lived in Salem since 1972 when he was hired as the first economist of the Oregon Public Utility Commission. Evan listed his career positions since 1972, which includes a long regulatory background, and mentioned he retired in 1998. He added that when he ran for a vacant, nonpartisan position on the Salem City Council, his was the only contested race.

Evan: Two months after filing candidacy, I received an email from the Chamber of Commerce's Great Jobs Political Action Committee. Unknown to me, the public relations consultant was hired by my opponent. Both the consultant and the opponent are members of the chamber's executive leadership council. The president of the chamber endorsed my opponent. He received 51 percent of the vote while I received 40 percent. He also outspent me six-to-one and had access to resources at the chamber. I'm glad I ran but it is evident now I didn't have much of a chance. While I'm sure the chamber has good aspects, it does dominate local politics and that is not good for the community.

John R: Staff took a preliminary look into Energy Trust's memberships with all chambers and other business organizations. We will get back to you with more detail. Energy Trust memberships for chambers of commerce are determined on a case-by-case basis. The size of the chamber and the benefits, such as advertising discounts, is what determines the membership level. Energy Trust does not engage in any chamber activities that are political. Because of our level of contribution to this chamber, we will evaluate our practice.

Mark: Is it your concern not that we participate with chambers of commerce but at that premium level, because it moves the relationship beyond business networking?

Jim: That is the case. There are times when it makes sense for Energy Trust to be part of chambers of commerce. Today, we are only talking about Salem, but the Salem chamber has chosen to be the most powerful political entity in our city, in local politics, and we run into them all the time. For that reason, when we look at our utility bill and see we paid money to Energy Trust and Energy Trust is a premium member, that doesn't seem right to us.

Debbie: Thank you for bringing these concerns forward. There are also other business organizations we are members of, not for political reasons, but to develop connections with businesses that might participate in our programs. It makes sense to me to make available the information of what groups we are members of and for what reasons, while keeping clear we are not directly lobbying.

Alan: A review of all our memberships we belong to is in order.

Ken: And it's not just business organizations.

John: We have determined prior to this that ratepayer dollars may be used for such memberships by our utility partners. I know that the Eugene Water and Electric Board, which is a publicly owned utility, was told by its attorney in 1973 that it could not be a member of the Eugene Chamber of Commerce, so there's some precedence.

Margie: Mr. Scheppke is Oregon's former state librarian and in that capacity came to us with a great idea to put energy monitors in state libraries. It is a successful program offering to this day. Thank you for your perspective today. It's not often we get public comment, and sharing your viewpoint is important to us. We have already begun reviewing our guidelines on memberships and the list of what organizations we are members of, why and what we get from those memberships. We will share this with the board and would gladly let you know when that is ready.

Jim and Evan thanked the board members for their time.

Consent Agenda

The consent agenda may be approved by a single motion, second and vote of the board. Any item on the consent agenda will be moved to the regular agenda upon the request from any member of the board.

MOTION: Approve consent agenda

Consent agenda includes:
1) April 3 board meeting minutes
2) Amend Fuel-switching Policy—R669

RESOLUTION 669
AMENDING BOARD POLICY ON FUEL SWITCHING

WHEREAS:

1. **The Fuel Switching policy provides generally that Energy Trust will not promote fuel-switching, but may provide fuel-neutral technical information on efficiency options. Incentives are not intended to encourage fuel-switching, but are allowed so long as any decision to switch fuels to install high efficiency equipment is based on customer choice.**
2. **In UM 1565, decided in March 2013, the Oregon Public Utility Commission determined, among other things, that Energy Trust policy should be amended to make clear that Energy Trust incentives are not intended to promote fuel switching.**
3. **Current policy language should more clearly express that fuel-switching is a customer choice and incentives are not intended to promote it.**

It is therefore RESOLVED:

1. **The Energy Trust board policy on Fuel Switching is amended as shown in the attachment.**

Moved by: Debbie Kitchin Seconded by: Alan Meyer

Vote: In favor: 10 Abstained: 0

Opposed: 0

President's Report

John Reynolds presented on the Bullitt Foundation's new six-story, 52,000-square-foot office building in Seattle. John reminded the board that buildings, both residential and commercial, consume about 48 percent of total U.S. energy. Transportation is 27 percent and industry is 25 percent. A widely used measure for building consumption is energy use intensity (EUI) which is kilowatt hours per year divided by the square foot floor areas. EUI measures heating, lighting, cooling, equipment, pumps, fans and water heating. To meet that load from renewable energy, one can make the renewable contribution equal to kWh per year, and then wind up with net zero energy consumption on site. In these days, net zero energy is a very ambitious goal.

John showed charts of a typical building's energy consumption compared to one with energy conservation measures. With conservation incorporated only through design by architects and engineers, building energy consumption is reduced by 38 percent. When conservation is incorporated

through design as well as occupant behavior measures, consumption is reduced 70 percent. At the Bullitt Center, the Bullitt Foundation is trying to reach only 16 kBTU/square foot per year. Lights are still a major portion of consumption. John showed a graph comparing the decrease in building energy consumption, and a separate graph of the decrease in the size of a solar electric system, comparing an average building meeting Seattle energy code to a Leadership in Energy and Environmental Design (LEED) building to the Bullitt Center.

John R: Something to think about as the efficiency of photovoltaics continues to grow is accounting for theoretical limits. As improvements in technology allow energy conservation to be even more dramatic, we really are approaching the place where even a six-story building may be able to reach net zero energy.

John then showed a map of solar resources by geography, noting that Germany is similar to the climate of Coos Bay.

Margie: I had an opportunity to tour the Bullitt building as a member of the Northwest Energy Efficiency Alliance (NEEA) board. Denis Hayes, the executive director of the Bullitt Foundation, conducted the tour. Some of the ways to achieve low energy use involve people monitoring and controlling their own lights, windows are operable depending on needs for ventilation and many more features.

Ken: It will be interesting to see what we will learn as more of these buildings are built.

Margie: The board can tour some of these cutting-edge local buildings, including the Port of Portland and the Edith-Green Wendell Wyatt Federal Building.

Energy Programs

Central Oregon Irrigation District Juniper Ridge Phase II Hydroelectric Project

Dave Slavensky introduced the resolution and Jed Jorgensen presented. The project falls under the Other Renewables program, which addresses wind, hydropower and geothermal projects. Jed introduced Steve Johnson, district manager at Central Oregon Irrigation District (COID).

Jed explained Energy Trust's focus for hydropower project development is to look for projects like this one. The COID phase 1 and 2 projects use water already in a manmade conveyance. This makes permitting easier because such projects tend to bring environmental benefits as opposed to environmental challenges. COID phase 2 is similar to the twelve other hydropower projects Energy Trust has funded. Energy Trust has provided $3.3 million in incentives to help complete twelve projects that generate 7.4 MW of capacity. In general, hydropower has provided a low-cost renewable resource for ratepayers at about $1.56 million per aMW.

Jed provided brief technical background on hydro projects, which combine the quantity of water with gravity acting on the water, known as flow and head, respectively. Those two factors are equal when calculating generation. Environmental benefits, derived from piping, eliminate seepage and evaporation. Because there is more water, there is less need for water diversion and the water can be kept in-stream to benefit fish.

The COID phase 2 project came out of a custom renewable project Request for Proposals in Pacific Power territory. Energy Trust has limited funding for renewable energy projects, which is why the sector utilizes a competitive process to allocate a portion of the funding. In this case, the RFP was for $2.5 million in incentives. The program received five applications requesting $7.5 million for projects up to 10 megawatts in capacity. Three applications did not meet the RFP criteria, the fourth project is still in discussion between the program and the project owner, and the fifth project is the COID phase 2 project before the board today.

Providing background on the COID phase one project, Jed described when Steve Johnson applied in 2006 for phase one, it was communicated up-front that the full development of the site would be in two phases. The penstock installation is the part that is phased, representing the bulk of project costs. COID knew it could not afford to install all the penstock at once. Phase one project estimates were approximately $22 million; however, costs eventually wound up at $25 million. Phase one was permitted and built to be a 5-MW facility. Because not all the penstock was installed in phase one, the system only operates as a 3.5-MW project, with generation of 13,435 MWh annually. Phase one reached commercial operation in 2010, and has operated as expected, achieving 98% of expected generation, which is very good especially as irrigation water flows vary from year to year. Phase one restored 20 cubic feet of water per second (CFS) to the Deschutes River, approximately 35 percent of summer stream flows. At the same time this project happened, the Swalley Irrigation District completed their hydro project, which we also supported, restoring approximately 10 CFS to the Deschutes. Combined, summertime stream flows were restored by almost 50.

Jed displayed a map of the project area. The North Canal Diversion Dam serves Swalley Irrigation District, COID and North Unit Irrigation District. From there COID has a main canal that runs northeast, and the phase one project components can be seen, including the forebay, 2.5 miles of penstock (pipe) and the powerhouse. The powerhouse has a 5-MW Francis turbine by a manufacturer established in the 1800s. A trash rack was installed to prevent debris from going into the penstock and causing turbine damage. Jed said the forebay regulates water flow going into the penstock.

Moving from phase one to phase two, the powerhouse and penstock will stay the same and the forebay will change. During phase two, COID would add 4,100 feet of additional penstock and build a new forebay, all estimated to cost $6.5 million. The project would commence in fall 2013 once the irrigation season has ended, construction would take place over the winter, and if the timeline proceeds as expected, the system will be back online in spring 2014 before the irrigation season begins. Another benefit to phase two includes the addition of 43 feet of head due to the added penstock. This greater head will increase generation by 3,700 MWh and 7.8 cubic feet of water per second will be restored to both the Deschutes and Crooked rivers. Phase two is slightly more complicated in terms of water benefits; two cubic feet of water per second will be restored to the Deschutes River and the remainder to the North Unit Irrigation District, which will then be able to stop pumping water out of the Crooked River. North Unit Irrigation District will also benefit from decreased pumping costs.

Jed clarified the canal is open from the forebay south to the Diversion Dam.

Mark: Once piped, is that publicly accessible green space?
Steve J: The irrigation district was created under federal legislation at the turn of the previous century, and it is actually a federal right of way. Outside of the federal right of away is privately owned land.

We have arrangements with the Bend Parks & Recreation department and the City of Redmond saying we would not object to any trails they may acquire.

Jed showed a map of the existing forebay location and where the new forebay will be installed. He clarified the powerhouse, turbine and penstock will all remain at their current locations. Reusing the trash rack was not feasible.

The staff process for the project included multiple levels of internal review, including a multidisciplinary team from across programs and an external review. Staff presented the project to the Renewable Energy Advisory Council (RAC) and it was reviewed briefly at the board Policy Committee. An external consultant was hired to perform due diligence, including analysis of risks, costs, revenues and financing. COID already has the site control to do this work and the design for the project is in place, their power purchase agreement is in place with Pacific Power, the project is fully permitted with the state and federal government, and their interconnection is in place with Pacific Power at the right level. Jed said the project really has become a construction project, relative to other projects, and this project is in a good spot.

For costs, the majority is for the penstock. COID has secured $500,000 from the Pelton Fund and $1.5 million from the Bureau of Reclamation WaterSmart program. COID applied to the Oregon Watershed Enhancement Board for $500,000 and the remaining $4 million is equity. COID may apply for a competitive Pacific Power Blue Sky grant. If they receive any of those funds, Energy Trust will share in some of the benefit as 50 percent of any funds received would then reduce the Energy Trust incentive by 50 percent. Though there was an Oregon Business Energy Tax Credit for phase one, phase two does not have such a tax benefit. Jed explained that when the Business Energy Tax Credit program was modified in 2011, staff completed an analysis of potential future projects. The analysis showed Energy Trust would need to provide two to three times the incentive amount than otherwise would be needed. The federal production tax credit and investment tax credit cannot apply to this municipal project as those tax benefits are available only to private project owners.

Jed walked through the above-market cost summary. The project term would be at 20 years with an 8 percent discount rate. Because a municipal entity is owner, staff looked to be consistent with how rates were set in the past and considered a range of rates reasonable for municipal projects. The hurdle rate staff heard ranged from 6 to 10 percent. This is the rate a project owner needs to move the project through for approval by the public and officials. In this case, staff is picking the middle of the road for the discount rate given the risk COID took to split the project into two phases and costs involved going forward. Importantly, this sets a floor on COID's return. The rate is not a guarantee; COID needs to keep costs the same to realize it, and what staff saw with the first project is costs went up. They also need to operate the project in a way that gets them to 8 percent.

Jeff: On operations and maintenance costs, where is it coming from since you essentially have the same equipment as before but less ditch to maintain?
Jed: That's not operations and maintenance for the total hydro project; it's just for the additional pipe. Every year, there is maintenance and inspection of the pipe. This operations and maintenance cost is for 20 years of operational expenses on the new pipe.

Jeff: Is this more expensive than maintaining an open ditch?
Jed: Yes.

Jeff: I thought it would be less.
Steve J: Maintenance on a normal canal would be removal of silt. We don't have that here.

Ken: There isn't any vegetation control?
Steve J: No, the water is cool enough that vegetation growth is very low.
Jeff: Do you have liability insurance?
Steve J: We are indemnified through state statute and carry liability insurance through Special Districts of Oregon.

Dan: On the discount rate, I did some research. As far back as 2009, I found us using an 8 percent discount rate on similar projects. The interest environment has changed greatly since then. In my opinion I would range it lower. A 1 percent decrease in discount rate would have a big effect on our incentive payment. Also, what has the irrigation district done to mitigate the significant risk of the loss of the dam during the timeframe of the project?
Jed: I think that's the Mirror Pond Dam you are referring to. In the case of this project, it's the Diversion Dam north of the Mirror Pond Dam. There are already operating agreements in place with the districts utilizing the water from that dam and fish mitigation with the state.
Dan: Is your picture in the presentation different than what I'm seeing?
Steve J: There are a series of dams that round through Bend. Diversion Dam is the farthest north or downstream dam in Bend. The Mirror Pond Dam you may be referring to is two dams upstream. COID, Swalley Irrigation District and North Unit Irrigation District are all invested in Diversion Dam. Also, three years ago, CH2M Hill evaluated the structure of the dam.

Ken: Who owns the dam?
Steve J: It's owned by COID by court decree from 1921. The physical title is held by a private party. COID owns sufficient dimension to divert the necessary water.

Jeff: Is this Federal Energy Regulatory Commission licensed?
Steve J: No, there is no power generation at Diversion Dam.

Anne: Where in this piping do you pull water out for customers and do you measure that?
Steve J: Yes, in the phase 2 stretch, there are two turn-outs similar to phase 1. There's a structure or a welded side pipe that goes into a box where there's a measuring device. We dissipate the pressure and the water flows smoothly over the measuring device, so we know exactly how much water we take out.

Jed completed the financial analysis. Above-market costs for the project are $1,281,821. Staff proposes an incentive of 100 percent of the above-market costs, paid in one lump sum once operations resume, post-construction. Energy Trust would take 100 percent of the renewable energy certificates (RECs); with 74,000 RECs, it comes to $17 per REC and $3 million per aMW. As compared to other hydro projects, this second phase falls very closely with other stand-alone projects Energy Trust has funded. When all phases are viewed together, this becomes the cheapest project Energy Trust has funded, other than the first phase alone. Together, costs will total of $2.28 million, and it will be $1.16 million per aMW and $8 per REC.

Ken: Is this a fully allocated system?

Steve J: It's fully appropriated. Oregon is advantaged by the Conserved Water Statute. You can protect that water with the priority date of the certificate.

Debbie: We're paying 100 percent of above-market costs. Do you anticipate that will be the approach in the future? Will it be project by project? Is this the first one without a Business Energy Tax Credit?
Jed: The percent of above-market cost is determined as we talk with the project owner and learn what they need to move forward with their project. COID is looking for as much funding as possible to reduce equity involvement. We have funded non-Business Energy Tax Credit projects, like the Three Sisters Irrigation District. Most are more expensive. This project has an older power purchase agreement with higher avoided cost rates than currently available. The current climate for renewables is challenging with low power prices and no Business Energy Tax Credit.

Alan: Thank you for presenting and for the contextual background.

Rick: This is a great project that meets Energy Trust objectives and benefits fish and wildlife. I hope to see more.
Anne: I reiterate that. It's something for Energy Trust to think about as water conservation and water management is a big deal.

Steve J: Thank you Energy Trust board and staff. Without Energy Trust, phase one and now phase two would not have happened.

RESOLUTION 667

APPROVING FUNDS FOR THE CENTRAL OREGON IRRIGATION DISTRICT JUNIPER RIDGE PHASE II GENERATION PROJECT

WHEREAS:

1. **The Central Oregon Irrigation District proposes to add 4,100 feet of penstock to increase the generation at its Juniper Ridge hydropower facility by 3,700 MWh annually, a 27% increase in generation.**
2. **Staff and an independent contractor reviewed the project design and costs and found them to be standard and reasonable for what is proposed.**
3. **The project's costs are $1.281 million above market over a 20 year period on a present value basis.**
4. **Staff proposes an incentive of $1,281,820 to be paid as a lump sum upon the project re-commencing operations.**
5. **At the proposed payment, the energy from this phase of the project would cost Energy Trust about $3.01 million per average megawatt (aMW). The cost of energy from both phases combined would be $1.16 million/aMW. Calculated either way, the cost is well below the range of the 2013 Other Renewables budget goal of $7.5 to $14.1 million/aMW**.

It is therefore RESOLVED, that the board of directors of Energy Trust of Oregon, Inc. authorizes:

1. **Payment of up to $1,281,820 to be paid to Central Oregon Irrigation District to offset the above-market costs of phase II of the Juniper Ridge hydroelectric plant;**
2. **Energy Trust to take ownership of 74,000 RECs produced by Central Oregon Irrigation District; and**
3. **The executive director to enter into a contract(s) consistent with this resolution.**

Moved by: Alan Meyer Seconded by: Rick Applegate

Vote: In favor: 10 Abstained: 0

Opposed: 0

Ken posed a general policy question on how does Energy Trust determine that the incentive paid was actually needed. The need to reduce equity, like in the COID phase 2 project, is a situation that every project may face. Does Energy Trust know when a project owner would go forward without an incentive, and if so, how would the program evaluate and test it? Ken clarified his question as a general question, one not directly linked to the COID phase 2 project. Anne mentioned the support and research Energy Trust provides is as beneficial as the incentive dollars.

Peter: I'll bring us back to the process that Jed outlined, which is there to help answer this question. First, there's Jed's analysis, then the consultant reviews, internal staff reviews and the project is brought forward to the RAC and board Policy Committee for another round of review. We use these steps to help us ask those questions. It might be worthwhile to do a workshop for the board on above-market cost methodology, including what the consultant's role is, which partly is to evaluate usual and customary costs so we have a benchmark.

Ken: Over time, good customers become aware of questions that will be asked and appropriate responses. I am pondering the question more than anything.
Peter: We ask the question ourselves, especially because we have a constrained budget for renewable energy projects and we need to build a renewable energy market in Oregon. In this case it's about exhausting all small hydropower resource potential.
Ken: And our obligation to ratepayers and the OPUC.
Alan: I have had the same concerns as Ken. At this point, I trust staff to look at all costs and benefits. Here, 8 percent seems reasonable. Whether they would do it or not becomes a moot point; either way it is still a good deal for us at that price.
Peter: I'm aware of only two projects, a landfill project and a wood products project, that went forward after we did not provide an incentive. These are projects that didn't make it to the board for consideration.

Margie: Jed, related to your comment that the incentive must now be about two to three times greater for projects because of the absence of the Business Energy Tax Credit, is that related to hydropower projects only or all renewable energy projects?
Jed: All custom renewable energy projects.
Margie: This will be a topic at our second board retreat on July 31: where to direct limited dollars.

Dan: Margie was right on, the environment is changing and essentially the state has decided, through Business Energy Tax Credit changes and what Energy Trust's renewable energy budget is, that this is how we will have to do things going forward.
Margie: Also, staff and the OPUC worked hard to develop new renewable energy performance measures to recognize all parts of what we deliver to these markets.

Lockheed Martin Existing Multifamily Contract Extension
Mark Kendall introduced the item, which is to extend the contract for Existing Multifamily technical services delivered currently by Lockheed Martin. The contract allows for three optional extensions. This is a proposal for a contract extension to deliver services for 2014 and 2015. The purpose for the contract extension is largely because Lockheed Martin has been effective and efficient in delivering the Existing Multifamily program, has been meeting goals, conducting outreach, referring customers to other Energy Trust programs, and is innovative in bringing new measures and broadening the "net". An advantage is Lockheed Martin is established in the multifamily market now and there is value to that. There are transactional costs to shifting contractors that are not often realized until the contract is transitioned to another company. The proposal is to continue the contract at approximately $2.6 million per year, delivering 19 million kWh and 136,000 annual therms of efficiency savings. Peter introduced Scott Swearingen, manager of the Existing Multifamily contract since 2010.

Scott: In 2010, the Existing Multifamily program was brought from the residential side of the ledger to the commercial side, recognizing this as a business strategy and approach. In mid-2010, we issued a competitive Request for Proposals, RFP, and out of that process, Lockheed Martin Services was selected to deliver on a five-year contract. Two years of the contract were guaranteed, with optional one-year and two-year extensions. The extension before you today is to bring the contract to term; after which, we will need to rebid the contract in 2015.

Scott explained the services and incentives provided through Existing Multifamily, a facet of the Existing Buildings program. One of the main reasons to extend the contract, beyond effective and efficient performance by Lockheed Martin, is avoiding transactional costs and the burden on Energy Trust support departments associated with launching and reviewing an RFP, and the potential transition if a new contractor is selected. Such transactional costs would be especially acute this year as another major contract, New Buildings, is also under rebid with New Homes and Products planned for 2014.

In 2012, Existing Multifamily integrated services for assisted living facilities and retirement communities. In 2013, Existing Multifamily began serving two- to four-unit properties, campus living such as dorms and the "Greek system" on college and university campuses. Extending Lockheed Martin's contract allows staff to complete long-term initiatives, like the MPower Oregon on-bill repayment and financing pilot and Memory Care lighting initiatives. Staff wants to keep these moving without the distraction a contract rebid would introduce. Lockheed Martin is also analyzing what current custom studies should actually entail to determine if costs can be lowered and to provide flexible services to meet customer budget and schedule needs. This approach would be rolled out in early 2014. Scott mentioned Lockheed Martin has made exceptional progress with cross-program referrals. More importantly, Lockheed Martin exceeded its annual contract savings goals, achieving 108% of stretch goal in electric and 120% of stretch goal in gas, which is also an increase over 2011 goals of 16% in electric and 56% in gas. The 2013 project pipeline is good; at the end of quarter one, Existing Multifamily is forecasted to reach conservative goal. Yet with activity already seen in quarter

two, it is projected to hit stretch goals for all utilities. Lockheed Martin is aware that just achieving goals is not enough, that exceptional performance means innovation on key issues like avoided costs, changes in the compact fluorescent light bulb market and other equipment and baseline changes. Lockheed Martin has consistently met deliverable deadlines. For these reasons, staff recommends extending the contract to December 31, 2015.

Alan: I see a proposed budget for 2014 but nothing for 2015. How will the 2015 budget be established?
Scott: Our budget cycle is on a two-year basis. This fall, we will budget for 2014 with broad estimates for 2015. We expect 2015 to be roughly in line with 2014.
Peter: You'll see this in October with the first round of the budget. In Existing Multifamily, we're largely looking at pilots and growing emphasis on capital investment.

Dave: We recently changed Program Management Contractors in Existing Homes and Existing Buildings. What are the lengths of those first contracts, and will they end up at the same time as this one completing in 2015?
Peter: Those are five-year contracts, structured as three years with two-year renewals. There is a staggering.

Ken: What's the decision process on how you determine contract extensions?
Peter: Scott detailed the criteria we use, and they prove out year after year to be the right criteria. We went with two year extensions to create more flexibility in the contracts. Right now we are on the path to flexibility. Our industrial Production Efficiency program has a Program Delivery Contract Request for Qualifications (RFQ) in the market that has us contemplating a three-year initial contract. This structure has to do with the specialized talent necessary to deliver the Production Efficiency programs.

The board had no other questions and voiced no objections; therefore, the Executive Director was authorized to sign the Existing Multifamily contract extension for Lockheed Martin.

Committee Reports

Evaluation Committee (Debbie Kitchin)

The last Evaluation Committee meeting was May 3. Most of the agenda was spent on the Production Efficiency process evaluation, the first evaluation since management of the program was brought in-house. Part of the process evaluation included interviewing program delivery representatives. It also looked at marketing, program delivery contractors, allied technical assistance contractors and industrial technical service providers. In general, few areas were identified for improvement. Like most programs reacting to draft evaluations, once improvement areas were identified, the Production Efficiency program began to implement them.

John R: For 72 percent of projects cancelled, the evaluation provided reasons for cancellation. Do we know why the remaining 16 percent did not proceed?

Phil: Project cancellations were largely due to business reasons or the project not working out. The specific reasons appear in our project tracking system allowing us to categorize cancellations in the future.

Ken: I wasn't able to find the four reports referenced in the notes on page two.
Phil: Sometimes the title used for the web listing isn't the same as in the report.
Fred: On the web, these reports are categorized as Market Evaluation.
Margie: We'll send the links out to the board.

Debbie said the Evaluation Committee also covered Sustainable Energy Systems for wastewater treatment plants and discussed whether the pilot is worth continuing. After the evaluation, it was determined to keep the offering. This segment of customers is small but they use a lot of energy.

Another study reviewed was the New Homes air sealing pilot. The study showed air sealing had dramatic impact on air changes per hour in a home. The pilot targeted builders not currently participating in the more advanced program. Largely, they were building to code, and if they added this one measure, they achieved significant energy savings. Though a few small issues were identified, it was determined to continue offering the air sealing measure. Also, a benefit of the study was that some builders who learned the air sealing techniques to use were then able to participate in the more advanced portion of the program.

The last study reviewed at the committee meeting was the heat pump baseline market update. Debbie mentioned all evaluations and studies are good resources for program, staff and the board to review.

John R: We've gotten quite a bit of flak for not offering incentives for high-efficiency gas furnaces while offering an incentive for high-efficiency heat pumps. I think we should bump up the requirement to 9.5 from 9.0 HSPF (Heating Seasonal Performance Factor).
Phil: Seattle is an island amidst a large number of other utilities who do offer incentives for heat pumps. The contractor pool overlaps a lot of those service areas and typically contractors do not change their practices across borders.
Debbie: Part of it is the surrounding area used in the study.
Fred: To directly address your question John, we're thinking about it. I'm not sure how much weight this study has, and we are working on a controls pilot. We have a strategy session next week to see what to do. And if cost-effective, and it may be, we might go up a tier next year.

Mark: Also at the Evaluation Committee, Production Efficiency and New Buildings staff were recognized for receiving national American Council for an Energy-Efficient Economy awards.

Compensation Committee (Dan Enloe)
The most recent Compensation Committee meeting was in late April and included review of the quarter one performance of the 401(k) plan. Dan indicated the results of the plan are good, and two funds are on "watch" status. One fund being closely watched may be eliminated depending on quarter two results. The committee will also look at potential changes to the 401(k) plan based on results from the employee survey. This review will be taken up again fully at the next committee meeting and options discussed on how to improve employee participation.

Dan said he also participated in the Executive Director performance review, and there was excellent performance by the Executive Director last year. He indicated his appreciation for participating in that review.

Related to Resolution 668, Compensation Committee charter amendments, the committee at the last meeting took a deep dive into the charter document and analyzed all sections of it for broadness, narrowness, alignment with transparency and disclosure goals and motivating employees to participate with their retirement. The board packet contains the updated charter. Under compensation goals of attracting, retaining and motivating employees, the committee will also look at total compensation packages and turnover rates, listen to employees via surveys, encourage employees to participate in retirement planning and provide transparency on these goals for the public. Any comments or feedback on what we've put together?

Debbie: I think this is a good overall document; the goals piece especially.
John: This is the first major committee charter overhaul I can remember.

Dave: What is the current turnover rate?
Sue: I can get you this, it is very small.
Margie: What we know from review of exit interviews is people leave here because they top out and are looking to grow skills elsewhere. Energy Trust is fairly flat and small. Employees often go to organizations we work with, some to the Power Council, utilities, those we contract with and others.

Alan: When is the next executive session to review Executive Director compensation?
Margie: July 31, 2013.

RESOLUTION 668
AMENDING COMPENSATION COMMITTEE CHARTER

WHEREAS:

1. **The environment in which Energy Trust operates has changed considerably since the Compensation Committee's charter was first adopted in 2006.**

2. **Upon review of the prior charter, the Committee believes its work would be facilitated with the establishment of the following goals for both compensation and benefits, primarily including Energy Trust's retirement plans, for which the Committee has fiduciary responsibility.**

It is therefore RESOLVED:

The Board approves the following revised Compensation Committee Charter.

Moved by: Dan Enloe		*Did not need to be seconded because this is a committee-advanced resolution.*
Vote:	In favor: 10	Abstained: 0
	Opposed: 0	

Finance Committee (Dan Enloe)
Staff completed Form 990 for the year, the federal tax return due each year, which details governance and transparency. Moss Adams, Energy Trust's financial auditor, helped staff prepare the form and the Finance Committee reviewed it. The form is available to the public on www.guidestar.org. Dan called out the Epicor line item, which is shown as an investment loss.

Ken: How did Moss Adams work out for this part of their responsibility?

Dan: They worked through this with Sue Meyer Sample and we found it to be well and professionally filled out.
Sue: They did a complete and thorough job.

Dan: When is this due?
Sue: It was due May 15, and we filed an extension because it is best practice to have the board review it.
Dan: If the board agrees, I suggest next Wednesday be the deadline for board members to formally submit any comments.
Sue: If we receive any comments around then, we can then submit the form by the end of May, well before the extended deadline of August 15.

Dan continued the committee report. The committee reviewed the monthly financials. Revenue is tracking with the budget. Expenditures are very low and picking up. Staff is now working with new Program Management Contractors for Existing Homes and Existing Buildings. Partly related is incentive payments tracking low, which is both in energy efficiency and renewable energy. Energy-efficiency spending is picking up and incentives were increased slightly for commercial solar electric to nudge demand. One renewable energy project was moved to next year. In IT, spending is not as fast as expected for phase two of the Integrated Solutions Implementation Project as staff focused on implementing utility data sharing tools and processes. Dan said programs are focused on delivering services and incentives to pick up spending.

Dave: As of April, have you seen an increase in processing of incentives?
Sue: Yes.

Margie: I'd like to highlight the briefing paper on Savings Within Reach. The offering supported 94 projects in 2010 and grew to complete 643 projects in 2012. Savings Within Reach is our moderate-income offering, where we are paying for highly cost-effective measures resulting in positive cash flow for homeowners. Loans associated with the offering will qualify for the state-mandated Energy Efficiency and Sustainability Technology Act program, known as EEAST.
Sue: One change to call out is when we brought this to you before, Clean Energy Works Oregon was involved and they were going to provide half of the loan-loss reserve. They are unable to do this anymore and Energy Trust is providing for loan-loss reserve, which ranges from $60,000 to $90,000.
Ken: I thought Craft3 was supposed to pick up the loan loss?
Sue: They do when it's greater than $90,000. Originally, Clean Energy Works Oregon was positioned first, Energy Trust second and Craft3 third.
Steve L: We are currently negotiating with the utilities for on-bill repayment, not through EEAST but as a voluntary on-bill. The utilities need to file a tariff with the OPUC stating this. We are also revising the relationship with Craft3 to reflect that Clean Energy Works Oregon is no longer involved.

Dave: Why did Clean Energy Works Oregon back out?
Steve L: Largely due to the American Recovery and Reinvestment Act (ARRA) funds they were going to leverage, which have a sunset date and also the timeline for the Savings Within Reach loan product, which is moving slowly.

Mark: How will costs be covered?
Steve L: It will be a transfer of funds from the consumer through utilities to Craft3.

Policy Committee

John R said much of what the most recent Policy Committee meeting covered has already been discussed at today's board meeting, including the COID phase two project and the Lockheed Martin contract extension. Plus, the committee decided not to make any changes to the public interest policy at its three-year review. The last item to report-out is the financing briefing paper.

Steve L: The briefing paper is our effort to consolidate various financing efforts and initiatives Energy Trust is involved with and identify potential future involvement. We have seen passage of EEAST legislation, the establishment of an on-bill repayment process and other states such as California and New York are following suit. Our relationship with Umpqua Bank went from co-developing a GreenStreet lending initiative to the bank now having expanded the loan product absent Energy Trust involvement. Umpqua Bank is now aligned with Energy Trust as a lending ally. It's time to frame a concerted approach for the organization and set a path for proceeding. Elaine Prause has led this effort.

Elaine: We started off with what lessons we learned so far after five years working in the financing realm. We've been across market segments and across organizations. First, we do not want to become a bank. We see financing as a tool that works for some customers. We do not see financing as a way to increase total savings. We're not talking about expanding savings potential but reaching that potential sooner than otherwise without financing. And we see opportunities that remain, and want to stay engaged.

The financing briefing paper starts with objectives. Where does financing make sense for us? First, projects that would not otherwise have happened without financing. Second, projects where some participants could go deeper; the caveat being the savings still need to be cost-effective and we're still working that out. And third is when financing enhances the customer experience.

Elaine continued her review of the financing briefing paper. The paper examined future Energy Trust financing options. In the end, this is about providing customer access to program opportunities. In three years, there might be a variety of ways for participants to get financing, and in five years, the options may narrow. The paper walks through the objectives and vision.

Staff thought through tools, individual tactics and markets. One tool is on-bill repayment. The strengths are the low default rates making this attractive to other lenders as a low-risk way to get into energy efficiency and small-scale renewable energy financing. It is also easy for participants to use, and is a nice framework for getting money to participants in a seamless way. The downside is a lack of experience and the short duration of time this has been available. There is limited experience in these types of projects, and mainly just one lender involved so far. Staff sees opportunity in helping the market increase volume.

Another tool is third-party off-bill financing, which has always been available. Staff sees opportunity in creating a lending ally network, which really started with Umpqua Bank and the joint GreenStreet Lending product between them and Energy Trust dating back to 2008. The downside is third-party financing is limited right now and it's tougher to provide for traditional lenders. A third tool is custom, bringing all of the other ideas back into one category. One example is Multnomah County. The county

is putting together a Property Assessed Clean Energy, PACE, financing program where the loan is paid back on property taxes. This would be the first offering of such a product in Oregon.

Mark: How is that treated with federal income taxes?
Elaine: I'm not sure.
Debbie: Property taxes are deductible but I'm not sure about payments on it.
Elaine: It is working in some other parts of the nation but volume is low, maybe 160 projects total.
Debbie: At a conference, someone asked what does the mortgage lender think about PACE.
Steve L: An opinion by Fannie Mae a few years ago put PACE options on hold for a couple of years. But they came back and reissued their opinion and efforts are starting to pick up.

Elaine: Custom also includes when others come to us with innovative ideas. We need to set rules of engagement in this area to reduce the amount of staff time devoted to assessing these ideas. We found opportunity in listing guidelines for moving forward. Examples include Energy Trust not being the primary lender or designer, the need to reduce market confusion, and the opportunity to expand participation yet not compete with other ways to participate.

Elaine said staff developed an action plan and directed the board to page 10 of the briefing paper. The action plan identifies Energy Trust continuing to provide support to prove out on-bill repayment, grow the lender ally network while minimizing customization, remaining open to collaborative inquiries while first completing a market analysis of commercial prospects so staff is informed prior to those approaching Energy Trust.

Elaine: The paper is brought here for your information and feedback on reasonableness.

Dave: What is the length of off-bill loans?
Elaine: It varies; some are secured or unsecured products, residential at about 15 to 20 years, and commercial at about seven to eight years.

Debbie: On the commercial side, there are people who do equipment financing on shorter timeframes. They may not be focused on efficiency though. Would you look to partner?
Steve L: We are trying to build the lender ally network, especially in rural areas. One piece of this is to get our name out in those regions by a well-known business. We are also looking into lender allies to see if the incentive can buy down the incentive rate.
Elaine: It's also about training lenders to be familiar with our projects and training contractors to be aware of lending options available.
Margie: Nothing in these options prohibits us from pairing the efficiency side with the remodeling side. And there is a version of this through Clean Energy Works Oregon.

Dave: When do you start considering when a segment is not being successful in paying back loans? Is that part of our role?
Steve L: That's a good question. We're not proposing to be the bank but in certain instances, like Savings Within Reach, we are putting money in.

Mark: That's one thing I'd like to see in the paper. What exactly is Energy Trust's role? What are the bounds with regards to our tolerance for cost, investment and rate of return?

Elaine: We propose to take small steps, to continue what we are doing today, and the Savings Within Reach on-bill option will be a great test as to our tolerance on loan-loss. We also want to increase volume in on-bill.
Margie: This is an early, conceptual paper. You are raising good questions on implementation, on what the costs and benefits are and what are the risks. This paper is more directional in nature.
Steve L: If I understand, your question is about planning, assessing costs and benefits. That's why we have Elaine in a leading role because it is viewed as a planning function.

Rick talked about the Board Strategic Planning Workshop. It's now one day, June 7. An additional half day has been added on July 31 in the morning prior to the next regular board meeting to talk about renewable energy. For June 7, Steve Nadel from the American Council for an Energy-Efficient Economy (ACEEE) will open the day. The focus of the day is energy efficiency and a briefing paper will be available from staff in the next few days. Also on the agenda is large customer electric efficiency and discussing what happens as demand starts to outrun funding for those customers. The agenda then moves to emerging technologies and Jeff Harris from the Northwest Energy Efficiency Alliance will speak. The board will also discuss implications the low cost of natural gas is having on cost-effectiveness. The agenda allows for informal board interaction. Toward the end of the day, there is opportunity for board reflection on Energy Trust's role and for also discussing Energy Trust's next five-year strategic plan.

The board took a break at 2:54 p.m. and resumed at 3:12 p.m.

Dan Enloe left the meeting at 3:12 p.m.

Staff Report

Executive Director Staff Report to the Board

Margie began her presentation with a recently completed project by Elkay Wood Products in Independence, Oregon. Elkay was able to improve its process for wood cabinet finishing that led to reduced energy consumption as well as an improved product quality—a win-win for the customer. The customer will save more than 340,000 kWh annually and will see a payback in less than one year.

Margie reviewed Energy Trust's total annual results since 2002, including 478 average megawatts generated and saved and 28.2 million annual therms saved. Energy Trust has served more than 500,000 sites and has helped participants save over $1.3 billion on their energy bills. Overall, benefits to ratepayers total $1.58 billion from deferred utility investments. An independent study from ECONorthwest shows Energy Trust activities adding $2.7 billion to Oregon's economy, including $793 million in wages, $175 million in small business income and 2,200 jobs lasting a decade. ECONorthwest analyzed this impact in 2012 as an independent third party, and staff based this year's impact results from that 2012 survey.

The Trade Ally Network has continued to grow and more importantly, includes greater diversity. The network has grown from zero in 2002 to more than 2,700 as of the end of 2012. The network includes contractors, engineers, architects, realtors and more. Many are small businesses with 10 or fewer workers. Energy Trust continues to diversify businesses with which it works and has attracted 145 minority, women and emerging small business certified trade allies. Also, four lender allies are currently signed up with Energy Trust. Though not a specific piece of Energy Trust's mission, carbon

reductions resulting from energy reduction total 8.4 million tons, equal to removing 1.5 million cars from the road for a year.

Dave: We could add water savings to the suite of results, too.

Margie described Energy Trust's first quarter results. There is a lag time in expenditures and savings for the quarter, part of it due to transitions to new Program Management Contractors (PMCs) learning Energy Trust system and processes, such as data entry and completed project verification. Energy Trust upheld internal auditing standards until the PMCs came up-to-speed. Programs will make up for the lag and get back on track. Margie pointed out staff did not compromise how the work gets done, and worked with the PMCs to address the issue. New procedures are now in place. Another reason spending is down is because of the economy and the hardships facing renewable energy projects. With low power costs and a lack of the Business Energy Tax Credit (BETC), the commercial solar market was especially hard hit. The Solar program adjusted incentive levels and project caps for commercial solar to stimulate activity.

Ken: You said it's hard to make a case because avoided costs are so low, but as a business or consumer I look at my rate on the bill and that hasn't changed.
Margie: You still have who's going to invest in and develop those projects, what are those costs, what's the return on those costs plus what we are off-setting—all these other variables apply to making a project viable and attracting investors and developers. When BETC has been there for so long and then drops away, there is a lag time with people adjusting to the new normal.

Margie continued her report. There was significant activity in other program offerings and she pointed the board to the comprehensive highlights in the Quarter 1 report. She called out a few highlights for the board. Staff is working with the Oregon Department of Energy on Cool Schools and attracting more schools to participate. To date, 35 schools and 11 districts are being engaged and audits will be complete in 2014. With the multifamily MPower pilot, the first phase of the pilot will focus on streamlining the energy audit process and developing a pipeline of projects where building energy bills are paid by property owners. For New Buildings, packaged incentives identified by market segment are making it easier to participate. The program also had 115 projects enroll in Quarter 1, a very positive pipeline. The market indicators in the board packet are showing permits for new housing and building spiking after a very long hiatus. For Production Efficiency, the program is tracking well against historical savings for all utilities, and is also cracking the high-tech sector. Industrial Strategic Energy Management has its highest enrollment to date and the third, largest cohort for Refrigerator Operator Coaching kicked off.

In residential, Existing Homes will catch up in Quarter 2 by entering 400 Clean Energy Works Oregon projects into Energy Trust systems. The first net zero EPS, an energy performance score developed by Energy Trust, was provided for an existing home in January to a residence served by PGE and NW Natural. Also, the New Homes program provided 270 new homes with EPS ratings; the program is on track to reach its 1,100 home goal. New Homes also completed 14 solar-ready incentives in the quarter. Existing Homes developed a Custom Home Energy Report, where the program is benefitting from utilizing actual energy savings from measures and an ability to characterize this to customers in their homes. The Massachusetts Institute of Technology pilot is looking at what type of follow-up is effective with customers after they receive Home Energy Reviews. These are behavioral insights staff is working on with MIT. Preliminary results will be available in the fall.

For renewables, poor market conditions are impacting many projects. The residential solar market remains very positive and as mentioned, the program is working on stimulating a stagnant commercial solar market. Hopefully the increase in incentive rates will result in a project uptick. The Biopower program saw the Farm Power biogas project in Tillamook County come online. The renewable energy sector launched and closed two RFPs, one each in PGE and Pacific Power territories.

Customer service highlights include gradual shifts in the number of people calling into the contact center as more people rely on the website or are directly calling program hot lines. In response, Energy Trust is decreasing the number of customer service representatives at call centers. Rachael Brown, customer and trade ally experience manager, has trained all 40 new PMC representatives on customer experience. There was an increase in complaints in Quarter 1 to six complaints, which is largely due to the PMC transition. The Planning group is going through an internal review of the PMC transition to determine ways we may change the process in the future. Overall, customer surveys show high satisfaction, and there is a new OPUC performance measure category added on customer satisfaction with program representatives.

Dave: Did many of the PMC employees move to the new contractors?
Margie: Some, I don't know exactly how many. Energy Trust stays out of that process.

Final noteworthy Quarter 1 activity includes launching a mobile version of the website, which was spearheaded by Sloan Schang. Staff has also been working very closely on utility data sharing, which required customer notification and that customers be offered a "do not contact" option for direct Energy Trust marketing. As of the end of the first quarter, approximately 1/100th of a percent of total customers had elected not to be contacted by Energy Trust for marketing purposes. The actual transfer of data started May 1.

Two programs received ACEEE awards. Production Efficiency was one of three in the country and New Buildings one of two in the county. Both received Exemplary Program awards. Programs continue to emphasize reaching all areas of the service territory. Susan Badger-Jones and Peter West recently completed two meetings in Ontario and Pendleton with regional representatives from Pacific Power and Cascade Natural Gas. A third meeting also completed in Bend in April.

Margie concluded with describing a recent commercial customer outreach event at the Oregon Museum of Science and Industry. Energy Trust worked with OMSI to audit its 20-year-old HVAC system. From the audit, OMSI installed three chillers, improved controls on the energy management system and installed LED exhibit lighting. Savings will reach 12 million kWh annually and OMSI is already seeing better lighting, temperature control and reduced maintenance.

Mark: Interestingly, when OMSI was built it was built above code for that time. This goes to show that opportunities always abound.

Feature Presentation: Vestas North American Headquarters Building

Renee Loveland, sustainability manager with Gerding Edlen, presented on the Vestas North American Headquarters Building. The project was very energy efficient and noteworthy for Gerding Edlen as a firm. Along with Vestas, Gerding Edlen is the only other tenant in the building. Gerding Edlen does a lot of work with local investors, completing projects on a one-by-one basis and also has a green investment fund that allows the firm to do work in other parts of the country, especially modern high rise and urban infill development. There are about 135 staff members in Portland. The company was founded in 1996.

Renee showed photos of the existing building, located at 13th and Everett, prior to renovation. Gerding Edlen has a strong presence in the area with the Brewery Blocks, Deschutes Brewery and Casey Condominiums. The building was acquired in 2006 and the original plan was to move in with a few other real estate firms. However, with the recession, Gerding Edlen was not able to proceed as planned. The design has a lot of similarities with the Weiden+Kennedy building. It's 180,000 square feet, the ground floor is occupied by Vestas and Gerding Edlen, floors three through five are Vestas and the second floor is a parking garage. Renee detailed the project financials, total renovation cost of $66 million, and said the historic tax credits were very valuable. The building is the full block and listed on the National Historic Registry.

The project used two general contractors and two design firms. As a whole, it is Leadership in Energy and Environmental Design Platinum certified. Renee talked about the challenges and opportunities in terms of the historic components, including the need to position the solar array nearly flat, a less than optimal siting, to stay within visibility requirements.

Renee described the building's efficiency features, which brought a 68 percent reduction in energy use. The building has an energy monitoring system in place, which tracks by load type. Gerding Edlen will compare actual energy consumption to the modeled consumption after one full year. Energy savings will be more than $200,000 a year and Gerding Edlen will verify the savings. Features include an interior atrium, lighting controls, occupancy sensors, high-efficiency envelope, energy recovery on the ventilation air system, 125-kW solar electric system, low-flow water fixtures and a rainwater harvesting system.

Renee walked through the incentives received and the project economics. She showed how the premium is not as much if you are integrating elements purposefully and plan ahead of time. The payback will be 7.5 years.

Margie: Is there anything you would do differently and any feedback for us on our role beyond the incentives?
Renee: I wasn't on point in terms of interacting with Energy Trust. As always, your program is great, and I tout it to everyone I talk to. I work with utility programs nationwide and Energy Trust is the best, hands down.

Mark: What strategic market intelligence can you share with us about the opportunity that your firm sees in urban infill retrofit?
Renee: We are strategic in the markets we look at because we look for markets where there is job growth. Gerding Edlen is very focused on place-making. One of the great lessons learned is extending our knowledge in public-private partnerships.

Feature Presentation: The Edith Green Wendell Wyatt Federal Building

Mark Perepelitza, sustainability resources manager of SERA, and Matthew Braun, project manager of Howard S. Wright, presented on the Edith Green Wendell Wyatt Federal Building. Matt initiated the discussion. The building is Portland's newest, most energy efficient high rise. The 18-story building is 512,400 square feet. It is complete and will be dedicated on May 30. The public is invited and there are tours, including self-guided tours. This building was originally built in 1974. It needed work to upgrade to Government Services Administration standards. This was an integrated project delivery.

In 2008, the Energy Independence and Security Act mandated energy improvement projects in government buildings. Through ARRA, this project was identified as shovel-ready and received funding. Extensive requirements were needed to bring the building to 2013 standard safety requirements. The project was on a tight schedule and included a tremendous amount of work. SERA and Howard S Wright were brought in to partner with GSA. The owner is GSA, the architecture and engineering team was led by SERA Architects, and the construction team was led by Howard S Wright. Matt walked through updates to building systems, including seismic upgrades, new mechanical system, new telecommunications, new fire and smoke control system and a new plumbing system with low-flow water features. The work environment includes an optically advanced electric lighting system, optimized daylighting, improved indoor air quality and accessibility. LEED Gold was required and the building is applying for LEED Platinum. It also achieved a 97 on ENERGY STAR. Matt walked through SERA's decision flow chart for energy conservation measures. The existing Energy Use Intensity (EUI) was 77-83, and the national average is 94. The renovation targeted an EUI of 34-36. Matt showed a summary of the energy conservation measures, the main measure being radiant heating and cooling.

Mark: The performance of the building is very integrated with the envelope and mechanical systems.

Matt detailed the envelope study, including the effect surrounding buildings have on heat gain and the solar array siting. Matt described that the more glass area, the better daylighting but also increased solar heat gain and heat loss. Ultimately, this led to specific windows and a window shading strategy.

Matt: Radiant technologies are being used more in Oregon.

Ken Canon left the meeting at 4:13 p.m.

Matt clarified that without a traditional VAV (variable air volume) heating and cooling system, specific features were needed to provide good indoor air quality.

Matt described the high-performance lighting design, plus the process of going through design and application. For the east façade, they started with science on the daylighting to shading needs and from there designed a façade with innovative reed technology.

Mark described the five array, solar electric system. With Portland's grid, there is an issue where energy generated by the system can't be fed back into the "area network" grid system.

Anne Root left at 4:21 p.m.

Mark ended with post-occupancy studies and documentation in three categories, resource use and generation, occupant satisfaction and interior environmental quality measurements.

Matt: It's worth noting that government funds didn't go to post-occupancy costs. The Energy Trust incentives will be reinvested in this, therefore, directly supporting ongoing green, energy sector jobs in Portland.

Dave: What's the exterior window maintenance like?
Matt: We've cleaned the windows twice already and it can be done in a standard manner. There are also catwalks that are used for maintaining the reeds on the east side.

Legislative Update
In the interest of time, the update will be emailed to the board.

Adjourn

The meeting adjourned at 4:28 p.m.

***Next meetings*:**
The next meeting of the Energy Trust Board of Directors will be the Annual Strategic Planning Workshop held Friday, June 7, 2013, 8:00 a.m. to 5:00 p.m. at Reed College in Vollum Lounge, 3203 SE Woodstock Blvd, Portland, Oregon.

The Strategic Planning Workshop will continue on the morning of Wednesday, July 31, 2013, at 8:00 a.m. at Energy Trust of Oregon, Inc., 421 SW Oak Street, Suite 300, Portland, Oregon.

The next regular meeting of the Energy Trust Board of Directors will then be held Wednesday, July 31, 2013, at 12:45 p.m. at Energy Trust of Oregon, Inc., 421 SW Oak Street, Suite 300, Portland, Oregon.

/s/ Alan Meyer
Alan Meyer, Secretary