

Board Meeting Minutes—125th Meeting

December 13, 2013

Board members present: Rick Applegate, Ken Canon, Dan Enloe, Roger Hamilton, Mark Kendall, Jeff King, Debbie Kitchin, Alan Meyer, Kenneth Mitchell-Phillips, John Reynolds, Anne Root, Dave Slavensky, Lisa Schwartz (ODOE special advisor)

Board members absent: Julie Brandis, John Savage (OPUC *ex officio*)

Staff attending: Margie Harris, Ana Morel, Hannah Hacker, Debbie Menashe, Amber Cole, Steve Lacey, Peter West, Courtney Wilton, Fred Gordon, Scott Clark, Diane Ferington, Jackie Cameron, Thad Roth, Kim Crossman, Jed Jorgenson, Betsy Kauffman, Mark Wyman, Matt Braman, Diana Rockholm, Sarah Castor, Sue Fletcher, Susan Badger Jones, Scott Swearingen, Jessica Rose, Chris Dearth, Dave Moldal, Brian DiGiorgio, Elaine Prause

Others attending: Juliet Johnson (OPUC), Jim Abrahamson (Cascade Natural Gas), John Charles (Cascade Policy Institute), Christina Cabrales (Conservation Services Group), Lauren Shapton (Portland General Electric), Karen Ward (Children's Developmental Health Services & Hearing Services), Don Jones, Jr. (Pacific Power), Nick Josten (Warm Springs Hydro), Dennis Dougherty (Warm Springs Hydro), Nate Cullen (Clean Water Services), Randy Naef (Clean Water Services), Bruce Cordon (Clean Water Services), Lynne Chicoine (Clean Water Services), Jerry Bryan (Farmers Irrigation District)

Business Meeting

President John Reynolds called the meeting to order at 12:15 p.m.

General Public Comments

There were no public comments.

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) November 6 board meeting minutes

Moved by: Debbie

Seconded by: Ken

Vote: In favor: 11

Abstained: 0

Opposed: 0

Board Appointments

Appointment of Karen Ward to the Audit Committee

Ken Canon introduced Resolution 688. One of responsibilities of the Audit Committee is to include perspective of an outside Certified Public Accountant familiar with nonprofits. The former outside

expert and advisor to the committee recently resigned after two years of service. Courtney Wilton worked with several colleagues to identify candidates and Karen Ward was selected. Karen is executive director of Children's Developmental Health Services & Hearing Services. Ken directed the board to the board packet to see a listing of her experience. The Audit Committee recommends she be added to the committee.

Karen: I worked with Deloitte LLP for 22 years and have background in audit services and risk assessment. I have worked with a wide variety of industries, including utilities. I recently moved into the nonprofit sector at Children's Developmental Health Services & Hearing Services for the last two years, which just merged with Albertina Kerr. I am excited to serve on the Audit Committee and to work with all of you.

**RESOLUTION 688
APPOINTING KAREN WARD TO
THE ENERGY TRUST BOARD AUDIT COMMITTEE**

WHEREAS:

- 1. The charter of the Audit Committee of the Energy Trust Board of Directors permits the inclusion of not more than two members who are outside of the board. Shirley Cyr previously served as an outside member of the Audit Committee, but resigned her position effective August 29, 2013.**
- 2. The board Audit Committee would like to include an outside member, has reviewed candidates for an outside seat, and nominates Karen Ward, Executive Director of Children's Developmental Health Services & Hearing Services, effective immediately.**

It is therefore RESOLVED:

That the Energy Trust of Oregon, Inc., Board of Directors appoints Karen Ward to the Energy Trust Board of Directors Audit Committee.

Moved by: Ken Canon

Seconded by: Alan Meyer

Vote: In favor: 11

Abstained: 0

Opposed: 0

John Reynolds and the board welcomed Karen to the Audit Committee.

Election of Kenneth Mitchell-Phillips to the Board

Alan Meyer introduced the resolution. For background, there is currently one resignation, Anne Donnelly, and Julie Brandis recently announced she will not be seeking a new term once it ends in February 2014. There is one candidate for the board to consider today to fill the spot left vacant by Anne. The Board Nominating Committee recommends Kenneth Mitchell-Phillips to a three-year term on the board. Kenneth is an attorney and was most recently general counsel at NxSystems, Inc. in Portland. He has worked at Davis Wright Tremaine, LLP as an attorney. He has served on numerous boards, including the Oregon State Bar Board of Governors, the Oregon Ballet Theatre and the Portland Schools Foundation. He teaches classes in law, real estate and employment law. Though

Kenneth does not have specific energy background, he has good experience on boards and is an attorney.

**RESOLUTION 687
ELECTING KENNETH MITCHELL-PHILLIPS TO
THE ENERGY TRUST BOARD OF DIRECTORS**

WHEREAS:

3. **Anne Donnelly was elected to the board for a term beginning February 2013 and ending February 2016. Director Donnelly resigned her position on the board effective September 29, 2013 due to scheduling conflicts, and her position on the board has remained open and unfilled since that time.**
4. **The board nominating committee has reviewed candidates for the open board seat and nominates Kenneth Mitchell-Phillips, attorney and General Counsel, Corporate Secretary, and VP of Human Resources for NxSystems, Inc. in Portland, Oregon effective December 2013.**

It is therefore RESOLVED:

That the Energy Trust of Oregon, Inc., Board of Directors elects Kenneth Mitchell-Phillips to the Energy Trust Board of Directors to a three-year term, subject to all requirements of the Bylaws of Energy Trust.

Moved by: Alan Meyer

Seconded by: Ken Canon

Vote: In favor: 11

Abstained: 0

Opposed: 0

Kenneth: Thank you for having me on the board. I'm excited to be here.

President's Report

Board member, Ken Canon presented his recent experience installing a solar electric system at his home property.

Ken showed an aerial image of his property, which is bordered by the Bureau of Land Management on the west and north side, and is also home to two spotted owls. What is unique is that there is an area where his power is metered by Pacific Power through a step down transformer, 120 kilovolt line, and that is the end of Pacific Power's ownership. Ken owns all the line and transformers from there to the house and outbuildings. The entire system, including well system, is structured to withstand potential forest fires. There are numerous sprinklers and large-size faucets throughout the property, including on the roof of the residence. Ken pointed out a potential ground-mounted solar system installation location, devoid of vegetation and near the house. He prepared the location for installation and installed a solar electric system, including an Energy Trust required fence.

Ken has a summer-peaking situation. He consumes about 22,000 kWh a year at the property. The total installation cost was \$33,000, and he received an Oregon Residential Energy Tax Credit for \$6,000, an Energy Trust incentive for \$4,770 and a federal tax credit of \$8,500. His out of pocket cost

was \$13,767. Looking at usage and an average estimate of 8,000 kWh generated per year, he estimates payback of 11 to 12 years.

Ken: To us, it's a valuable addition to the property; it's like prepaying your power bill for a while. It would have been most cost effective to do a 3-kW system but we went above.

Ken showed a real-time screen shot of what each panel is generating, on www.enlighten.enphasenergy.com, called Enlighten Manager. Ken clarified the system is net metered and does not have battery storage. He went with a ground-mount system because of the angle of the house roof and the potential for paper wasp nests beneath the system. The panels are from SolarWorld and are an Oregon-made product.

Margie: Can you comment on your experience with the installation process and the program?

Ken: We initially thought of doing this earlier, but we don't have many installers in our area. New Castle Solar installed it. The process with Energy Trust worked well, and the inspection by an Energy Trust inspector went well.

Final Proposed 2014-2015 Action Plan & 2014 Budget

Margie Harris presented on the final proposed 2014 annual budget and 2014-2015 action plan, available in full detail in the "budget binder" provided to all board members and posted on the Energy Trust website. Margie mentioned the process takes about six months from its start in the summer when staff presented budget concepts to each utility through to this final proposed budget and action plan presentation. Today's presentation includes a summary of outreach conducted and comments received, information on any changes made and, a staff recommendation that the board adopt the final proposed budget.

Since the November board meeting, staff has taken the budget and action plan "on the road". After the summer meetings with the utilities, staff met again with the utilities with tailored presentations, previewed the budget with the Oregon Public Utility Commission staff, and conducted two customer association meetings, which attracted organizations such as BOMA and Oregon Home Builders Association. For the first time, Energy Trust offered a webinar, and attendees represented a broad audience. Staff presented again to the Renewable Energy Advisory Council and Conservation Advisory Council, and to the OPUC commissioners at a public hearing.

Staff took all comments received and summarized responses to those comments, available in the budget binder. Also included in the binder are actual written submissions if available; otherwise, they are responses to verbal comments. There was no one theme this year, beyond feedback around the Existing Homes air sealing measure modification.

Feedback particularly from the OPUC was support for the budget and action plan as proposed. The OPUC commissioners reviewed Juliet Johnson's detailed staff memo to the OPUC at the public hearing in November. Juliet's memo started by acknowledging Energy Trust's response to the OPUC's requests last year, which included keeping administrative costs low, changing how goals are characterized and reserve accounts structured, communicating quarterly on changes to computer system upgrades, deep retrofit initiatives, lender allies and coordination of grant opportunities. For comments on the 2014 budget, the OPUC recommended limiting carryover to less than 10 percent for all utilities, and this budget does envision spending down reserves. Energy Trust will monitor how that

translates into a percentage for each utility. The OPUC supported Energy Trust's request for 5.5 FTE, and staff will incorporate questions about staffing, the organization's approach to staffing and Energy Trust's structure and size into the Management Review, which will occur in 2014. Margie indicated we are working to find the right balance with staffing, particularly as Energy Trust projects to level off on savings acquired compared to aggressive growth over the last five years. Energy Trust will also examine with the OPUC staff how staffing levels are measured. Energy Trust will work with OPUC to document when changes are made in staff roles or responsibilities. Energy Trust will continue communications work with the OPUC and with many other stakeholders related to cost-effectiveness, and will update the budget and action plan once an evaluation is complete on electric avoided costs.

Margie described additional information on expenditures and staffing. This is an area of the budget where comments were directed, including board comments from November.

Margie reviewed charts on the final proposed budget. Of the \$176.2 million final draft budget, the single largest investment is for incentives at \$101 million, or about 60 percent of the total budget. There is growth in incentives, especially evident for Existing Buildings, Production Efficiency and Home Products. This is where programs are trying to address the gap left by the Oregon Business Energy Tax Credit and low energy prices. Programs are attempting to make up a portion of that gap, not all of it.

The budget also allocates \$50.9 million for program delivery, or 30 percent of the total. This reflects changes in the types of projects, and growth in volume of activity. Projects are smaller and yield lower savings yet there are more transactions overall. Energy Trust is experiencing a conundrum between lower savings per transaction while the effort to capture those savings may result in higher costs.

In the budget, internal costs are \$12.8 million, which is mainly outsourcing for professional services like in Planning & Evaluation hiring evaluators, the annual financial audit, some media buys, some creative services and marketing, and also rent, insurance, software licenses, conferences and training, and the Management Review. The remaining \$11.6 million is for salaries and benefits for 100 staff. Margie mentioned this has taken 12 years to get to this point. We have grown steadily and slowly in that time period.

At the last board meeting, Ken asked about the breakdown of incentives and categories by fuel and utility. That detail is under the Budget Detail tab in the budget binder. A few highlights include electric efficiency incentives of \$71.7 million and electric program delivery of \$36.6 million. This is a total of \$108 million compared to \$95 million from the prior year, up by about 12 percent. On the gas side, there is \$15.8 million in incentives, \$6.8 million for program delivery, and a total of \$22.6 million compared to \$20.8 million in the prior year, an increase of 8 percent. On the renewables side, incentives are up 8.8 percent to \$13.5 million and program delivery is around \$138,000, and the total is down 35 percent from \$21 million in the prior year to \$13.6 million.

Alan acknowledged Margie for incorporating answers to previous questions.

Debbie: Salaries and benefits are for Energy Trust staff. Does that include Production Efficiency staff?

Margie: Production Efficiency staff is under salaries and benefits instead of under program delivery.

Debbie: I recommend you move Production Efficiency to program delivery. One of the issues is if you pull a program in-house, like this one, for strategic reasons, that shouldn't be a penalty for Energy

Trust. When you're running a business, you're making trade-offs. Especially as we start to discuss staffing next year.

Margie: The same issue would be true on Renewables as we have in-house staff, and some on commercial. We will look at this again and represent it differently in the future.

Ken: You could literally have a note saying it includes in-house program delivery.

Dave: And a note should be made to your baseline for over-time comparison.

Roger: If you were to pull out traditional administrative costs, where would that be?

Margie: We'll get to that shortly.

Margie showed a chart comparing current year 2013 budget to the final proposed 2014 budget and noted what's changing, in response to a question from Alan at the last meeting. Changes are not significant. Energy Trust did increase incentives by 2.85 percent and program delivery went up 6.8 percent due to an increase in volume and transaction costs. Even at those increases, Energy Trust is still seeing highly competitive prices and is within cost metrics for the OPUC. Internal costs did go down, in response to feedback from the board and adjustments include changes in the IT group. There is some increase on staffing costs, and the percentage is roughly similar to the draft.

Margie showed graphs of staffing costs since 2005. Energy Trust has a performance measure with the OPUC that program and administrative costs are less than 9 percent of annual revenue. Typically Energy Trust budgets 6 percent, while the actual percentage is usually less than budgeted, coming in slightly over 5%.

Ken: For support and administrative costs, how does that relate to the pie chart you just showed?

Courtney: Staff costs in this bar chart don't include program staff costs, just administrative staff costs, plus non-staff support costs.

Margie: The definition is in the financial glossary and is submitted in the every-other year public purpose charge report to the Oregon Legislature.

Margie said Energy Trust also monitors staffing costs as a percentage of total expenditures and showed a bar chart on it.

Margie described Energy Trust's approach to staffing, in response to questions from Debbie, the OPUC and PGE in the last month. Energy Trust uses a competitive Program Management Contractor delivery model. From a staffing perspective, when developing work plans with staff, every year management revisits and refocuses efforts for each individual staff member. The process identifies priorities and aligns staff work plans with the action plan and strategic plan. These work plans and priorities are revisited at mid-year and adjusted for changing focus or priorities. Whenever there is a vacancy, the job description is reviewed for any potential changes that can or should be made to the roles and functions the position fulfills. This is all done on an annual basis and before any position is requested to be added during the annual budgeting process.

Margie reviewed details of the final proposed 2014 annual budget and 2014-2015 action plan. Programs are adapting to a changing environment, which is always true of the energy efficiency and renewable energy field. On the surface, budget dollar amounts look consistent with 2013, yet below this water line is a different story. There is the loss of the Business Energy Tax Credit, the low cost of energy, challenges related to cost effectiveness, higher volume projects yielding lower savings and higher transaction costs, and new tactics needed to reach more and different customers. This

increases the complexity to deliver programs and a need to diversify what is offered and how customers are reached.

The overall budget is largely similar to the last presentation. There is growth in savings of 8 and 9 percent for gas and electric, revenue down 1.4 percent stemming from a reduction in NW Natural rates and, planned expenses up 3.5 percent instead of 5.1 percent as in the earlier draft. Planned expenses now reflect \$1 million removed from the internal cost category within the Planning & Evaluation and IT groups. Increases in incentives and program delivery account for 86 percent of the total increase, and this portion has not changed from the two versions of the draft. Energy Trust will draw down reserves and expects to make up the difference between under collection on the revenue side and increased expenditures. Levelized costs are remaining stable and competitive. The renewable energy budget is comparable and, there has been generation shifted from 2013 to 2014. Administrative and program support costs are flat at 6 percent of projected revenue and staff expects to come in closer to 5 percent.

Margie showed a chart of electric savings increasing 8 percent, gas savings up 9 percent and generation increased from two solar capacity projects, an Oregon Institute of Technology geothermal project and a biopower project.

Margie mentioned 2013 is projected to end with Energy Trust exceeding stretch goal for PGE and NW Natural, coming close to stretch goal for Pacific Power and coming close to conservative goal for Cascade Natural Gas. She is pleased with the results, and mentioned there is still activity that will come in this month. The Renewable Energy sector is expected to generate 2.6 aMW.

Margie came back to the budget presentation and showed charts on revenues for 2014 of \$163 million. The total is down \$2.3 million. Revenue from PGE and Pacific Power are essentially the same, and Cascade Natural Gas is down. There are not a lot of changes on the revenue side.

Expenditures are slightly changed. Renewables is up \$400,000, energy efficiency is down \$3.3 million and overall budgeted expenditures are down \$3 million. As mentioned, this led to a change from the draft budget showing a 5.1 percent increase to the final proposed budget showing a 3.5 percent increase.

Margie clarified revenue is down due to NW Natural having a rate decrease. This supports the OPUC, utility and Energy Trust desire for rate stability. There are no planned increases for 2014 or 2015 at this point. Instead, the strategy is to draw down current reserves.

From the draft to the final proposed budget, expenditures went down 1.6 percent, with a slight reduction in incentives and staff costs, \$1 million removed from Planning & Evaluation and a reduction of \$400,000 from IT. This demonstrated for Margie opportunities to work with staff to budget differently in the future, and look for places in the budget where staff may be overly optimistic in what can be completed in any one year.

Net change to savings by utility include PGE down 0.6 percent, Pacific Power down 0.4 percent, NW Natural Oregon up 0.4 percent due to improved forecasting for New Homes and, Cascade Natural Gas down 11.5 percent. Changes in Cascade projected savings reflect different growth assumptions for gas hearths and more realistic projections for two industrial projects that are in the pipeline but can

be paid for by using the Cascade Natural Gas reserves if they do complete. This will be the agreed upon preferred approach for the future, given the large swings industrial projects can have on Cascade's relatively smaller budget.

Electric savings by program have not changed significantly from the 2013 forecast to the 2014 final proposed budget. Overall, programs are still delivering very inexpensive power at an average cost of 2.9 cents levelized, well within the cost cap of 3.9 cents levelized set by the OPUC and lower than the avoided cost assumption of 6-9 cents per kWh. On the gas side, most programs are growing in savings, the majority in Existing Homes, Production Efficiency and New Homes & Products. Margie pointed out the NEEA gas pilot and an upcoming strategy session with NW Natural. Overall levelized costs are 40 cents per therm, which is within the cost cap of 57 cents per therm and below the avoided cost of 49-54 cents per therm.

Dan: What's a real therm of gas cost for residential?

Jim Abrahamson: For Cascade Natural Gas, it's around 80 cents per therm retail.

Margie said renewable energy generation shows Solar increasing and Other Renewables decreasing. Total generation is up from 2.65 aMW in the 2013 forecast to 4.49 aMW in the 2014 final proposed budget, which helps levelized cost to go down from 5.7 cents per kWh to 3.5 cents per kWh.

Alan: Can you explain why Solar isn't more expensive, as it was during the last presentation?

Thad Roth: What is driving this is generation from two Pacific Power solar capacity standard projects coming online in 2014, projects you approved at the November meeting.

Margie summarized staffing requests of 5.5 FTE. Two FTE are conversions from existing contractors, three FTE are new and include the Senior Stakeholder & Community Relations Manager, Southern Oregon Outreach Manager and Senior Project Manager. The 0.5 FTE is a current web developer proposed to move from part-time to full-time. These have the support of the OPUC.

Mark: Is this going into marketing and outreach?

Margie: Two of the three new FTE are, and two FTE are currently resourced by using contractors.

Mark: So this is aligning with staffing costs within your budget?

Margie: Yes.

Margie said PGE commented on why Energy Trust does not plan to work with the utilities and program management contractors (PMCs) to perform some of the marketing and outreach functions that would be part of the new staffing positions. Margie commented it's really about how Energy Trust divides up roles and responsibilities for staff versus contractors. Staff sees the whole of marketing and outreach activities across the organization, where PMCs focus on delivery for their specific program. Also the relationships that would be formed through these positions make more sense to have through staff versus PMC staff or the utilities, especially with efforts that span across the entire organization. Those relationships should be built and maintained in-house. Some of these positions will, however, coordinate and work closely with staff at the utilities, as we do now.

Margie recapped the benefits of the final proposed budget, including power at 3 cents per kWh, natural gas annual therms at 40 cents, clean energy generated, \$425 million in future predicted bill savings, energy improvements in 120,000 homes, continued high customer satisfaction, more

visibility, more access, and more diversification. She mentioned that when staff communicates about these benefits in different settings, they will include total expenditures by Energy Trust, carbon benefits, behavior change and technology development to address comments from the board in November.

Ken: For the \$425 million in future bill savings, what time period is that?

Margie: It's different for different customers and depends on the life of the measures installed.

Alan: I move adoption and want to ensure Kenneth knows there is no pressure to vote given he was just appointed to the board.

Anne: As you develop marketing in Southern Oregon, I encourage you to benchmark how incentives are distributed across the state so you can see growth in areas as you implement some of these new programs. You could do so by population and by regional locations.

Margie: We do want to do this, statewide and by regions, to have a baseline. Fred has an intern working on census data to develop that baseline.

Dan: Thank you staff and Margie for well done outreach work, listening to critics, responding and adjusting. It's good we're paying attention to that feedback.

John R welcomed public comments.

Lauren Shapton: PGE regards Energy Trust as a partner. We do not always see things the same way, and we do not expect that to happen all the time. PGE is not a "critic" of Energy Trust.

Jim Abrahamson: With Cascade Natural Gas being only 1 percent of the total Energy Trust budget, one or two projects delaying can have a tremendous impact on how we turn out for the year. Now the OPUC is putting additional pressure on Energy Trust to come in with carryover less than 10 percent. For Cascade Natural Gas, that will be extremely difficult to do, because things change, a couple of projects here or there. We also don't have the deferral account anymore and can't do real-time adjustments on rate of revenue given to Energy Trust, especially at year end when delays in projects are made apparent.

Roger: The 10 percent rule in aggregate may make sense because that institutionally is an Energy Trust target.

Jim: Good point, but at the same time we are all guardians of ratepayer funds so the individual look is still critical so we are not over or under collecting.

Roger: Maybe we could talk through the length of time for the 10 percent carryover, instead of annual, maybe it's two years.

Margie: Also, in May, the board approved a reserve policy that is based on the needs of each utility.

Juliet: This is a similar item that came up at the OPUC public hearing, Mr. Charles from Cascade Policy Institute also brought this up at that meeting saying that as savings are harder to acquire, Energy Trust may be forced to spend more money. 10 percent is a general guideline; we want to keep ratepayer dollars moving and create incentive for Energy Trust to develop projections as tight as possible. I don't think this will be something the commissioners or staff will be rigid about as we recognize these complexities. Input on this issue is well received.

Jim: In regards to timing for comments on the budget, Cascade Natural Gas had a substantial change in achievable savings in 2013, but didn't get a chance to look at that until October. Once we saw it, we had a chance to compare to 2014 and noticed a disconnect. Energy Trust staff and Cascade Natural Gas were able to fix it, but we weren't able to look at total impact financially before the public comment period closed.

Margie: This had to do with how we prepare the budget for the organization as a whole before diving into details by utility. In this case, the comment period ended before Jim could see the full impact of changes for Cascade and before the final proposed budget was sent out. We will examine the timing for next year.

Courtney: Also, overhead rate changes very little from stage to stage and in the future we may be able to give closer estimate earlier.

No further public comment received.

**RESOLUTION 685
ADOPTION OF 2014 BUDGET AND PROJECTION FOR 2015**

BE IT RESOLVED: That the Energy Trust of Oregon, Inc., Board of Directors approves the 2014 budget and 2015 projection as presented in the board packet.

Moved by: Alan Meyer

Seconded by: Ken Canon

Vote: In favor: 11

Abstained: 1, Kenneth Mitchell-Phillips

Opposed: 0

**RESOLUTION 686
ADOPTING 2014-2015 ACTION PLAN**

BE IT RESOLVED: That Energy Trust of Oregon, Inc. Board of Directors approves the two-year 2014-2015 Action Plan as presented in the board packet.

Moved by: Ken Canon

Seconded by: Anne Root

Vote: In favor: 11

Abstained: 1, Kenneth Mitchell-Phillips

Opposed: 0

The board took a break from 1:50 p.m. to 2:05 p.m.

Energy Programs

Warm Springs Dam Hydro Project—R682 (Revised)

Jed Jorgenson presented on the resolution. Betsy Kauffman introduced herself as managing the Other Renewables program at Energy Trust and mentioned that Jed works on hydropower and geothermal projects. Two representatives of the Warm Springs Hydro participated by phone, Nick Josten and Dennis Dougherty.

Jed started with the revised resolution. There was a minor design change required by the Bureau of Reclamation that causes a minor amount head loss, and this translates into less than 1 percent difference in generation. The change does not impact the Energy Trust incentive or Renewable Energy Certificate (REC) allocation. There is more detail than in the past in the briefing documents, which was recommended by the Policy Committee. Staff is looking for feedback on the level of detail the board seeks for these types of projects. There will be two hydropower projects presented today and they both came out of a competitive solicitation launched in August and led to these two hydropower projects and one biopower project. The biopower project did not meet funding criteria and did not move forward in the process.

The two hydropower projects are on irrigation infrastructure, which is a target area for Energy Trust's investment in hydro. Energy Trust has ten other projects operating, one nearly online and three in the pipeline for a total of 5.9 megawatts of capacity and 2.7 average megawatts of generation.

Jed reviewed the project evaluation process. The renewables staff received the applications, created a detailed internal review memo, had staff from around the organization review the projects, and contracted with Steve Anderson from Evergreen Energy, an independent contractor, to review the project. Once the projects had internal support, staff took the projects to the Renewable Energy Advisory Council (RAC) for feedback and is now at the board to request authorization for the incentives because they are greater than \$500,000.

Jed showed a list of criteria against which each project was reviewed.

Jed described the project which is located at Warm Springs Reservoir in Eastern Oregon. The project would install a 2.7 megawatt turbine and generator at the base of the dam, and the energy moved along 2.2 miles of line to interconnect with Harney Electric Co-op. Then the power is wheeled through Bonneville Power Administration to Pacific Power. The dam is 106 feet high, 470 feet crest length, and owned by Warm Springs Irrigation District and Bureau of Reclamation. Water is released based on the needs of irrigators downstream.

Jed described where the turbine and generator would be installed at the dam. Irrigation water drives the project. The hydro unit will generate energy based on the irrigation needs going through the system. This is the first time Energy Trust has supported a project at an existing dam. There are about 82,000 unpowered dams in the U.S. and they present a good opportunity but they have long permitting timelines ranging from five to seven years. This dam is no different. The project started in 2009, and the lengthy timeline is the main reason Energy Trust doesn't see these types of projects. There is also a great deal of environmental scrutiny. There is no reason Energy Trust can't participate but these are some of the reasons there hasn't been such a project in the past.

Site control is through an agreement with the irrigation district that allows them to construct the project in exchange for lease payment based on percent of gross revenue of the project. The development team is Warm Springs Hydro LLC, a special purpose entity for this project. Members are experienced, and own four projects as an LLC. Energy Trust has worked with them on the CDrop project at the Klamath Irrigation District that came online in 2012. That system received a \$490,000 incentive and has performed as expected so far.

For the Warm Springs Dam project, the resource is the Malheur River, a source of risk and opportunity. The challenge is that it is a dam using water for irrigation purposes. All rivers are subject to climate conditions around them, especially drought. There is a lot of data on those impacts over time for this site. Jed showed 20-year estimated generation using data from 1992-2012 based on flows available. Staff expects to see varied generation over the years; on average, over 20 years, approximately 600,000 MWh per year in generation. In any one year, this project won't get that. Water will be available but is variable.

Warm Springs will install a Kaplan turbine, which can efficiently handle a wide range of flows. At this point, a Federal Energy Regulatory Commission license is the main permitting needed, and the project owners expect to get that in the first quarter of 2014. The Federal Energy Regulatory Commission (FERC) license includes a tremendous amount of outreach with public and state natural resource agencies. There is no controversy surrounding the project from the resource community or local community. Staff expects the license to be provided. Other benefits of the project are downstream, developers will rebuild an irrigation diversion and there will be stocking of the reservoir, which is a recreational benefit.

Rick: Are there other un-screened irrigation diversions?

Jed: I don't know the answer but in this case, the diversion is causing turbidity problems for fish.

Nick Josten: Upstream from the reservoir, there is much improved fish habitat compared to the project area, which is fairly degraded. In that location, Oregon Fish and Wildlife is focusing efforts to improve conditions. That's where we're proposing to help them with a significant mitigation problem upstream. From the reservoir downstream, water goes from Malheur through Vale. I'm not sure about screening down there.

Dennis Dougherty: There are no screened diversions downstream from the reservoir.

Ken: Is there a minimum screen flow below the dam?

Jed: To my knowledge, in winter time this is a section that is de-watered.

Roger: If required to do mitigation, the hydro project itself is not creating impact but the dam is. What is the impact you are mitigating?

Jed: Oregon Fish and Wildlife has authority to require screening during these reviews.

Roger: When the Policy Committee looked at this, we asked the same question about fish and anything down the road that would impair. Historical flows will most likely not be what is realized given droughts and more intense droughts.

Jed: That is a valid concern and why we looked at only the last 20 years of flow data instead of any data prior to that.

Rick: I am interested if we are funding projects that have fish benefit, thus my question. In this case, according to Oregon Fish and Wildlife, mitigation work would be beneficial. But if there are a number of un-screened diversions, that could negate that benefit from the one that will be updated.

Jed: Over the long-term, the hope is funds from the project will be reinvested in the system.

Anne: Is there any future risk of the project being scrutinized from Energy Trust's perspective of not recouping investment?

Jed: Water rights on this system will keep the project operating.

Jed mentioned with the interconnection with Harney Electric Co-op, the utility will forego wheeling fees in exchange for the option on the project in the future. This is a progressive viewpoint staff has not seen before.

Mark: What impact did that have on the Pacific Power contract?

Jed: Pacific Power is just buying the project as an off-system qualifying facility; it looks like a reduction in cost to the project and does not change the power purchase agreement.

Financing is through the LLC working with Farm Credit Services, which was also used on the CDrop project. Farm Credit Services says it can secure the loan with personal assets. This means that for a year when revenue is low and won't cover the debt, the LLC can cover the debt with personal assets. The fact that Farm Credit Services is assured the LLC can cover the debt makes staff comfortable. The project does not have an Oregon Business Energy Tax Credit. The above-market cost is \$1 million over 20 years with a 12 percent discount rate, which is at the high end of the range for a discount rate. There will be \$3.6 million revenue in net present value and \$4.2 million in project cost. Staff proposed a \$740,000 incentive distributed in three equal payments, the first on commercial operation and the next two at the end of the next two irrigation seasons pending performance milestones. Energy Trust is asking for 82,000 RECs, which is equal to 66 percent of the expected generation over 20 years and is about \$9 per REC. The project costs just over \$1 million per aMW. Compared to other projects, Warm Springs is on the low end.

Jed said this is a strong project with a strong development team. The independent review by Steve Anderson came to the same conclusion.

Alan: I appreciate the additional detail, especially on discount rate, in the briefing paper.

Ken: On page three, long-term, is Harney Electric Co-op interested in the project after the 20-year period ends? Do we have a prior project where we provided incentives and the project was sold to a public utility?

Jed: We have supported other off-site qualifying facilities. After our agreement ends, the project has a decision on where it wants to sell power. At present, we have projects wanting to sell to utilities that they were funded by based on the power prices that are available, but we do not know how that could play out in the future.

Ken: Is that an assumption that they will want to sell to Pacific Power for 20 years?

Jed: Yes, the power purchase agreement requires sale for 20 years.

Betsy: The phrase long term references post 20 years.

Dan: To improve your portfolio, CAD technology for turbine design has improved greatly. For existing turbines, you may have a program to just incentivize people to change their blades.

Jed: That is certainly occurring, those change outs. For the most part, they are well beyond where we can play in terms of our funding.

John R said he was struck by the good will effort of Harney Electric Co-op to wheel power for free.

Lisa: Are there ideas in the future on how to address the wheeling cost issue?

Jed: We are about to start work with Farmers Irrigation District to identify opportunities out there. Part of the process includes working with the local utility for projects out of our service territory to assess comfort level. We have seen change over time with some of these utilities being more open to supporting project development as they learn more about how a project can benefit their system.

Anne pointed out a needed correction on page four of the resolution, which should say “third” payment instead of two “second” payments.

Dennis and Nick thanked the board for its consideration.

**RESOLUTION 682
APPROVING FUNDS FOR THE WARM SPRINGS DAM
HYDROELECTRIC GENERATION PROJECT**

WHEREAS:

1. Warm Springs Hydro LLC proposes to add hydroelectric power production to the existing Warm Springs Dam by installing an intake, penstock, powerhouse, 2.7 MW turbine, generator and associated interconnection equipment, resulting in 6,165 MWh of generation annually, on average.
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 \$1,022,235 above market over a 20 year period on a present value basis.
4. Staff proposes an incentive of \$740,000 to be paid in three equal payments. The first payment would be made upon the project commencing commercial operation. The second payment would be made upon the end of the first irrigation season if the project meets generation performance milestones. The **second third** payment would be made upon the end of the second irrigation season if the project meets generation performance milestones.
5. At \$1.05 million per average megawatt (aMW) the incentive is well below the target range of the 2013 Other Renewables budget 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 \$740,000 to be made in three payments to Warm Springs Hydro LLC to offset the above-market costs of adding hydroelectric power production to Warm Springs Dam.
2. Energy Trust to take ownership of 82,000 RECs produced by the project; and
3. The executive director to enter into a contract(s) consistent with this resolution.

Moved by: Dan Enloe

Seconded by: Roger Hamilton

Vote: In favor: 11

Abstained: 1, Kenneth Mitchell-Phillips

Opposed: 0

Clean Water Services Biogas—R683

Dave Moldal presented on the resolution, a project in PGE territory at Clean Water Services. Three representatives of Clean Water Services participated by phone, Nate Cullen the director of wastewater treatment, Randy Naef the principal engineer, and Bruce Cordon the business planner. Early this year, Clean Water Services submitted an application for a brown grease co-generation project at its wastewater treatment plant.

Energy Trust has a strong legacy in supporting biopower projects, including co-generation projects that produce both heat and energy. Energy Trust has provided \$1.34 million in incentives for four

projects at Gresham, Medford, Pendleton and Portland. This has led to 3 MW of installed capacity, producing over 20,000 MWh annually.

The Durham Advance wastewater treatment plant is located in Tigard, and it treats wastewater for Beaverton, Tigard, Sherwood, Tualatin, and other smaller towns. It is the fifth largest wastewater treatment plant in terms of the volume of wastewater treated. Currently, 175,000 people live within the Durham Advance wastewater treatment plant territory and the population is expected to grow.

Support for this project presents an excellent strategic opportunity for Energy Trust. The facility is owned by a municipality, and the plant operates continuously. A 2009 analysis quantified adding brown grease to increase energy, and a 2011 grease supply study, which received Energy Trust project development assistance, estimated the volume of brown grease in Washington County alone to be more than sufficient.

The project will generate biogas from anaerobic digestion. It is owned and operated by Clean Water Services. Capital costs of \$17.6 million includes digester reconfiguration and gas storage, a brown grease receiving and processing station and a gas cleaning system. The new co-generation facility would include two co-generation engines replacing a system currently at the end of this useful life, and the two engines will have a combined capacity of 1,696 kW. The project is expected to reach commercial operation by January 2015.

The Durham facility has operated as a wastewater treatment plant since 1974, and has had a co-generation system since 1993. The 500 kW engine is operating and nearing the end of life. A 2008 facilities plan recommended a new co-generation facility with increased capacity to use excess biogas. Today, anaerobic digestion of wastewater solids alone produces two-thirds of the biogas needed to run the proposed 1,700 kW engine. This is a project strength. Durham will produce the remaining biogas necessary by co-digesting wastewater solids with brown grease; fats, oils and greases (FOG); and other wastes. There is increased complexity for the project owner, especially in gas cleaning.

Energy generation and financial viability are dependent on securing adequate co-digestible liquids, including FOG and food processing waste. A 2010 analysis showed 23,000 gallons per day of FOG in Washington County alone. There is more available that wasn't included in the study, especially as population increases.

Brown grease is a material that is typically scraped off plates and flushed down the drain. It's not yellow grease like from fryers. Waste haulers pump brown grease out of the sewer system. Waste water treatment plants have an interest in diverting this material, because it is a major maintenance cost. It causes clogs and costly repairs when if flushed into the sewer system. Clean Water Services' source controlled program manages the discharge of brown grease from food service establishments and other commercial food processors. As such, the brown grease from these businesses is expected to increase steadily as enforcement activities and regulations increase. Further, given projected population growth within the service territory, there is projected to be sufficient biogas from the anaerobic digestion of municipal wastewater solids alone to fuel these engines at full output by 2025. In summary, given Durham's feedstock analysis, their location to a major transportation corridor, other sources of high-strength organic waste in the region and increasing flows of waste water into the

treatment plant, the Renewables staff concluded that adequate supplies of digestible materials are available for sufficient biogas production to fuel both engines.

Ken: What is being done with the 23,000 gallons of FOG today?

Dave: It's moving around the region. A lot of it is not being used.

John R: How secure is the FOG supply?

Dave: If they follow Gresham's lead, Gresham has been able to secure ample feedstock through three-year feedstock agreements with haulers.

Betsy: It's important to note they don't need all of that to meet generation expectations. Plus with projected population growth, the reliance on FOG will be less and less over time.

Roger: What is the length of contracts JC Biomethane uses?

Thad: Contract length varies by supplier and JC Biomethane is using a different waste stream, organics out of municipal waste stream, not high-density liquids as in this case. There are a number of studies on grease trap waste in the Portland Metro area. There is a range of production of that material, anywhere from 15,000 to 40,000 gallons per day. Staff has high confidence in the supply this project needs based on analyses conducted. Also, we are confident we are not encouraging competition for the material among projects we have already incented.

Jeff: What is probability that with yellow grease having high market value that processes won't be developed to extract value out of brown grease, so instead of tipping fees you're paying them?

Thad: We have modeled the tipping fee rather conservatively. We are making the assumption that the value of brown grease will go down over time.

Dave: Durham's energy goal is to generate as much power as possible to reduce the power purchased from PGE. Through a technical analysis, Durham needs 15,000 gallons of brown grease a day. The system is expected to generate 12,366 MWh per year, with a net capacity factor of 83 percent. Some generation from the co-generation system will offset 60 percent of Durham's load. Risk on the project is not in securing feedstock, and studies show sufficient supply.

Dave continued. The project is well along its development timeline. The general contractor has been selected and has the construction bid. An RFP is going out for brown grease and co-digestible feedstock contracts next year and they should be secured by the middle of 2014. The project is analyzed on a 25-year term, consistent with their financing. Energy generation will offset the retail power rate of about \$0.75 million. Capacity of 2.5 MW exceeds net metering requirements of the OPUC, but the project secured an interconnection agreement with PGE to stay on their current rate schedule.

Brown grease tipping fees are for about 15,000 gallons per day for 25 years, receiving \$330,000 per year. Operations and maintenance costs are consistent with what was used on other, similar projects. The total project cost is \$17.6 million. The project has an Oregon Department of Energy combined heat and power (CHP) tax credit of \$2.85 million path through. Revenues are \$15.6 million with 8 percent rate of return, which is consistent with other biopower projects. Costs are \$20.1 million. This is proven biopower technology with similar systems operating in Oregon. Costs are similar to what are observed there. The above-market cost is \$4.5 million.

Dave: Why a 20-year term for the Warm Springs project and 25 years for this one?

Dave: This one is based on the term of the projects revenue bonds.

Thad: To come up with a term length, we typically use a 20-year term, which is a reflection of the life of the asset. In this case, because the debt term is longer than 20 years, we decided to use a 25-year term. We have done this in the past. The equipment should last 20-25 years, and we have incorporated equipment overhauls.

Roger: The combined heat and power tax credit applies to the use of heat in the building. Is there any excess heat?

Dave: This project will most likely have excess heat capacity.

Thad: We know there are conversations with nearby hosts for this heat, potentially a swimming pool nearby.

Randy: As part of the project, we are extending hot water return in a few of buildings to take advantage of all waste heat that will be generated.

Mark: Will any heat go to the digester?

Randy: Yes, heat will first be used for the digester system and then the building.

Dan: You are taking old equipment out of service after 20 years but forecast the project at 25 years?

Randy: The gas cleaning system improves the life of the system.

Alan: With Warm Springs we get our renewable energy certificates (RECs) first, this one doesn't say. It might be something that would be desirable for us.

Thad: We get RECs as they are produced. Who they go to will be part of the contract negotiation.

Most projects like to deliver RECs to Energy Trust first so that after a certain point they don't have to manage that.

Dave: For the replacement, in the financials, we are covering total costs but it seems like some costs shouldn't be included as they'll be replaced anyway.

Thad: This is the approach we've taken with engine replacements in the past because technically they can flare the gas as a viable option and we don't want that to happen so we fund the full cost, not the incremental cost.

Dave: How are the other projects we funded at wastewater treatment plants performing?

Thad: They are some of our best performers.

Dave: They are performing at 85 percent capacity factor.

It was confirmed this project generation is not intermittent generation.

Dave said the incentive of \$3 million will be paid in three installments, \$1 million upon commissioning and the final two based on meeting generation thresholds. This payment structure will help in terms of one main risk of the project, which is a potentially insufficient co-digestible material volume. The incentive falls within range of past projects.

**RESOLUTION 683
APPROVING FUNDS FOR THE CLEAN WATER SERVICES–
DURHAM COGENERATION AND BROWN GREASE RECEIVING FACILITIES PROJECT**

WHEREAS:

6. Clean Water Services proposes to install cogeneration power production at the existing Durham Advanced Wastewater Treatment Plant by installing two 848 kW cogeneration engines, a biogas cleaning facility, a brown grease storage and processing facility, modifications to associated hot water piping and electrical systems, and gas storage in an existing digester, resulting in 12,366 MWh of generation annually, on average.
7. Staff and an independent contractor reviewed the project design and costs, and found them to be standard and reasonable for what is proposed.
8. The project's costs are \$4,524,036 above market over a 25-year period on a present value basis.
9. Staff proposes an incentive of \$3,000,000 to be paid in three equal payments. The first payment would be made upon commercial operation. The second payment would be after 12 months, pending the project meeting generation performance milestones. The third payment would be not sooner than 12 months after the second, also pending meeting performance milestones.

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

4. Payment of up to \$3,000,000 to be made in three payments to Clean Water Services to offset the above-market costs of installing a cogeneration system and brown grease receiving and processing facilities at the Durham Advanced Wastewater Treatment Plant.
5. Energy Trust to take ownership of 200,948 RECs produced by the project; and
6. The executive director to enter into a contract(s) consistent with this resolution.

Moved by: Mark Kendall

Seconded by: Dan Enloe

Vote: In favor: 11

Abstained: 1, Kenneth Mitchell-Phillips

Opposed: 0

Farmers Irrigation District Plant Two Hydro Upgrade—R684

Jed Jorgenson presented on the resolution and introduced Jerry Bryan, special projects manager at Farmers Irrigation District, which is located outside Hood River. Jed showed a map of the site location. Farmers Irrigation District has two existing hydropower plants running since the mid-1980s. Energy Trust has worked with Farmers Irrigation District in the past. The district has pressurized its canals, taken farmers off individual pumps to save electricity and also put more water through turbines as it's not seeped through the ground. Farmers Irrigation District is part of the recent Farmers Conservation Alliance study the board heard of at the last meeting, and is one of the most progressive districts in the nation to become more water conservative and moving forward with environmental benefits.

A past project example is the low line canal piping project completed in 2012 at a site that was subject to destabilizing environmental events. The project was to install a pipe in that area to no longer be subject to those extreme events. With this project, the district never has to ration water to users during those events and exceeded generation at plant 3 by a factor of four, a big success.

Mark: Primarily because of percolation and evaporation losses?

Jed: That plus the ability to handle major rain events they couldn't handle in the past. Previously such an event would have shut things down as slopes become destabilized and now the district can shuttle that water through the pipe.

Jed said this project is removing existing 1 and 2 MW Francis turbines, generators and controls and upgrading with a single 3 MW Gilkes Turgo turbine, generator and control from the United Kingdom. This is not the end of life for these turbines. These turbines are susceptible to cavitation, the formation of air bubbles that produce shockwaves when they collapse that then create metal fatigue on the turbine, and sediment loads. The Gilkes Turgo turbine is expected to solve this problem and increase generation because it's more efficient.

John R: Is there any salvage value?

Jed: Farmers Irrigation District thinks \$100,000.

This is a first for Energy Trust, a hydro turbine replacement. The project was evaluated with similar hydro replacement situations where the equipment was at mid-life. Staff looked at total project cost but only additional generation above the baseline and including the upside benefit of reduced operations and maintenance the district expects to achieve with the turbine switch out.

Farmers Irrigation District owns the facility and is experienced in operating. The resource is well known; Farmers Irrigation District has monitoring equipment throughout the district and is good at knowing how much water is moving where. Jed compared the Francis turbine technology with the improved Gilkes Turgo turbine and described how the Gilkes Turgo is more efficient and can extract more energy.

Jerry provided background on why the Francis turbine was initially purchased in the 1980s and mentioned the Gilkes Turgo was not available in North America at the time.

Jed said no permitting is needed, Farmers Irrigation District conducted outreach and no one needed an update. Pacific Power was notified of the expected increase in generation that can happen and Pacific Power is okay with it. The power purchase agreement is in place for the next 10 years, and for the second 10 years, staff used a proxy for what those rates may be. New revenue will be \$130,000, \$62,000 in reduced operations and maintenance costs on an annual basis, and capital costs of \$4.3 million. The district is financing with Special Districts Financing. There are no other incentives or grants. Over 20 years, with an 8 percent discount rate, the revenue will be \$2.3 million, costs of \$3.9 million, and above-market cost of \$1.59 million. The project will receive an \$825,000 incentive distributed on two payments, one upon commercial operation and the other at the end of the first operating season with the performance milestone met. There are 29,000 RECs, a little more than usual but staff is doing so to keep the overall program beneath the REC cost in the OPUC metric.

Alan: This is for 75 percent of RECs from additional generation within five years but this is a 20-year project?

Jed: We are only looking at added generation. The total output from both Farmers Irrigation District plants is more than 30,000 MWh annually, we have a big REC pool to draw on to repay the RECs. It's essentially an advance and one way to reduce risks on this project.

Ken: Are pumps owned by patrons or Farmers Irrigation District?

Jed: Patrons.

Ken: And all are Pacific Power territory?

Jerry: I believe all are.

Rick: This is an irrigation district that has a very long history of innovating work with fish screening.

Mark: Please explain the difference between the discount rates for the two hydro projects.

Jed: Yes, Warm Springs is at 12 percent and this at 8 percent. This project is municipally owned, which can take a longer-view. This one is also not as much risk. Warm Springs is privately owned and typically at 10-12 percent is what's necessary to attract private capital. Warm Springs is also securing the loan with its own assets, which we felt necessitated a higher discount rate.

**RESOLUTION 684
APPROVING FUNDS FOR THE FARMERS IRRIGATION DISTRICT
PLANT TWO HYDROELECTRIC GENERATION PROJECT**

WHEREAS:

- 10. The Farmers Irrigation District proposes to install an upgraded turbine, generator, and associated control equipment in its Plant Two powerhouse to increase generation by 1,953 MWh annually, a 12% increase.**
- 11. Staff and an independent contractor reviewed the project design and costs, and found them to be standard and reasonable for what is proposed.**
- 12. The project's costs are \$1.594 million above-market over a 20 year period on a present value basis.**
- 13. Staff proposes an incentive of \$825,000 to be paid in two equal payments. The first payment would be made upon the project re-commencing operations. The second payment would be made upon the first anniversary of the project re-commencing operations if the project meets generation performance milestones.**
- 14. At \$3.7 million per average megawatt (aMW) the incentive is well below the target 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:

- 7. Payment of up to \$825,000 to be made in two payments to Farmers Irrigation District to offset the above-market costs of the turbine upgrade at the Plant Two hydroelectric facility;**
- 8. Energy Trust to take ownership of 29,295 RECs produced by Farmers Irrigation District;
and**
- 9. The executive director to enter into a contract(s) consistent with this resolution.**

Moved by: Rick Applegate

Seconded by: Dave Slavensky

Vote: In favor: 11

Abstained: 1, Kenneth Mitchell-Phillips

Opposed: 0

The board took a break from 3:40 p.m. to 3:50 p.m.

Committee Reports

Evaluation Committee, Debbie Kitchin

At the last meeting, the committee reviewed a process evaluation for the New Buildings program. Many recommendations from the report were taken up by the program. Typically, a process evaluation is looking at how a program is performing and how it can be improved.

For the committee meeting this morning, notes will be in the February packet. One agenda item was the review of costs and savings for different tracks within the Existing Homes program: Clean Energy Works Oregon (CEWO) Track, Home Performance Track, Savings Within Reach Track and Standard Track. There was participation by the two outside experts on the committee, plus CEWO's executive director was in attendance, which is one of the tracks covered in the report. The outcome is staff will work with CEWO in the coming weeks to get CEWO's comments. Plus, staff is waiting to hear back from an outside expert reviewing the cost analysis. Then the report will be finalized in mid to late January.

The committee also reviewed an impact evaluation from the Production Efficiency program from 2009, 2010 and 2011. Impact evaluations evaluate actual savings compared to expected savings. Many elements of the program are coming in close to 100 percent realization rates, or the expected results.

The next meeting is at the end of January 2014.

Dave: A timeline of evaluations completed in the past would be helpful to see what's coming through and what's next in the cycle.

Finance Committee, Dan Enloe

October financials are in the packet. This year is at risk of coming in low on savings, but Energy Trust was in a similar position last year and came in high. For this year, we budgeted \$85.7 million in incentives for efficiency, forecasted we'd be at \$74.1 million and we're only at \$39.2 million. Existing Buildings has only spent one-half of its incentives.

Dave: Is there a way to incentivize projects to get done earlier or throughout the year?

Margie: We have done that in the past. We have provided bonuses for commercial programs and Production Efficiency to get projects done in a timely fashion.

Dave: Getting that many projects done in such a short time increases work load and may contribute to errors.

Margie: This is an longstanding issue and part of an annual budget cycle.

Nominating Committee, Alan Meyer

We now have one opening and several board members terms are ending soon. A survey went out to all board members. Instead of just geographic representation, the committee is looking at skills of the current board and where there are gaps. That, in addition to geographic representation, will be the approach used when searching for board members.

Policy Committee, Roger Hamilton

The last meeting covered the three renewable energy projects just seen today. The committee also talked about savings and costs within the Existing Homes tracks, like the Evaluation Committee.

Debbie Menashe recommended a couple of changes to the way Energy Trust presents issues and documents. The proposal is to have more detailed project briefing papers to aid board member comprehension, and board minutes will be trimmed down to summarize discussion.

The Strategic Planning Committee has been meeting and the next board meeting will be a good time to bring the rest of the board up-to-date. The committee is looking at a number of issues, like cost-effectiveness.

Adjourn

The meeting adjourned at 4:15 p.m.

The next regular meeting of the Energy Trust Board of Directors will be held Wednesday, February 26, 2014, at 12:15 p.m. at Energy Trust of Oregon, Inc., 421SW Oak Street, Suite 300, Portland, Oregon.

/S/ Alan Meyer

Alan Meyer, Secretary