

Board Meeting Minutes—118th Meeting

February 20, 2013

Board members present: Julie Brandis, Ken Canon, Dan Enloe, Mark Kendall, Jeff King, Debbie Kitchin, Alan Meyer, John Reynolds, Anne Root, Dave Slavensky, John Savage (OPUC ex officio, *by phone*), Annie Donnelly (new board member)

Board members absent: Rick Applegate, Roger Hamilton, Lisa Schwartz (ODOE ex officio)

Staff attending: Margie Harris, Ana Morel, Hannah Hacker, Amber Cole, Steve Lacey, Scott Clark, Sue Meyer Sample, Fred Gordon, Debbie Menashe, Pati Presnail, Kim Crossman, Chris Dearth, Thad Roth, Dave Moldal, Sue Fletcher, JP Batmale, Kathleen Belkhat, Susan Jowaiszas, Phil Degens

Others attending: Juliet Johnson (OPUC, *by phone*), Kendall Youngblood (PECI), John Charles (Cascade Policy Institute), Buzz Thielemann (RHT Energy), Lis Saunders (NEEA), Garrett Harril (Portland General Electric), John Morris (Fluid), Sepideh Rezanian (NEEA)

Business Meeting

President John Reynolds called the meeting to order at 12:17 p.m.

General Public Comments

There were none.

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) December 14 board meeting minutes
- 2) Signing authority for General Counsel (R659)

RESOLUTION 659 AUTHORIZING APPROVED BANK SIGNERS

WHEREAS:

1. Umpqua Bank and Bank of the Cascades provide general banking services to Energy Trust (collectively, the “Banks”).
2. Section 7.3 of the Energy Trust bylaws requires that the board of directors authorize officers or agents to sign checks, drafts, or other orders for the payment of money, notes and other evidences of indebtedness (“authorized bank signers”) by way of resolution from time to time.
3. Effective January 15, 2013, John Volkman retired from his position as General Counsel/Policy Director of Energy Trust, and Debbie Goldberg Menashe was appointed General Counsel.

4. **John Volkman is currently an authorized bank signer for Energy Trust's accounts at the Banks.**
5. **In connection with appointment to the general counsel position, Debbie Goldberg Menashe should replace John Volkman as an authorized bank signer for the Banks.**

It is therefore **RESOLVED** that,

1. **John Volkman to be removed from the list of authorized bank signers for the Banks.**
2. **Debbie Goldberg Menashe to be added to the list of authorized bank signers for the Banks.**
3. **The resulting list of authorized bank signers for the Banks is as follows:**
 - a. **John Reynolds, Board President**
 - b. **Dan Enloe, Board Treasurer**
 - c. **Margie Harris, Executive Director**
 - d. **Susanne Meyer Sample, Chief Financial Officer**
 - e. **Peter West, Director of Programs**
 - f. **Steve Lacey, Director of Operations**
 - g. **Debbie Goldberg Menashe, General Counsel**
4. **The Executive Director is authorized to execute all required documentation to implement this resolution.**

Moved by: Debbie Kitchin

Seconded by: Ken Canon

Vote: In favor: 10

Abstained: 0

Opposed: 0

Nominating Committee

Alan Meyer presented on the three resolutions. Resolution 657 is to renew the board terms for Debbie Kitchin, Alan and John Reynolds to 2016.

RESOLUTION 657 ELECTING DEBBIE KITCHIN, ALAN MEYER, AND JOHN REYNOLDS TO NEW TERMS ON THE ENERGY TRUST BOARD OF DIRECTORS

WHEREAS:

1. **The terms of incumbent board members Debbie Kitchin, Alan Meyer, and John Reynolds expire in 2013.**
2. **The board nominating committee has recommended that these members' terms be renewed.**

It is therefore **RESOLVED**:

1. That the Energy Trust of Oregon, Inc., Board of Directors elects Debbie Kitchin, Alan Meyer, and John Reynolds, incumbent board members, to new terms of office that end in 2016.

Moved by: Alan Meyer

Seconded by: Anne Root

Vote: In favor: 10

Abstained: 0

Opposed: 0

Alan clarified that Resolution 661 was amended and the updated Resolution 661A is the correct version. Alan informed the board that Joe Benetti decided not to serve another term on the board after his term expired in February 2013. Joe is from the Coos Bay area, and an extensive search was conducted to find another candidate from the same area to maintain geographic representation on the board. With input from Joe and former board member Caddy McKeown, two candidates surfaced. Of those, the Nominating Committee nominated Annie Donnelly to serve her first term on the board. Annie is the executive director of the Coos County Historical Society. Her diverse background includes legal experience in landscape architecture.

Annie thanked the board for considering her for the board seat. She said she is excited at the opportunity and has been familiar with Energy Trust for quite some time due to her own home remodel and her involvement in the building of a new facility for the Coos Historical and Maritime Museum. She commended the board on how much Energy Trust is accomplishing statewide and said she is an advocate of the work done by quasi-government and non-governmental organizations. She said she supports Energy Trust's mission and would like to help as she can.

Mark: Can you explain more about your legal background in landscape architecture?

Annie: At the Coos County Historical Society, I am working to get the mission reorganized and building a new museum on the waterfront. The commonalities between law and landscape architecture is working toward a coherent whole, and reaching a place that works and is effective.

Dan: At the historical society, your mission is to try to keep things looking as they are. At Energy Trust we are implementing energy efficiency which can involve making changes to buildings. How do you balance that in a historic building?

Annie: I would like to clarify that I am not involved in historic preservation. I am involved at the historical society. I am personally not an advocate for freezing items in time, and I feel no conflict between my experience and what Energy Trust does.

**RESOLUTION 661A
ELECTING ANNE DONNELLY TO
THE ENERGY TRUST BOARD OF DIRECTORS**

WHEREAS:

1. ~~Joe Benetti has resigned his position on the Energy Trust board. His term expires in February 2013.~~ **Joe Benetti's term on the Energy Trust board expires in February 2013 and he has decided to not seek another term.**
2. **The board nominating committee has reviewed candidates for the open board seat and nominates Anne Donnelly, lawyer and Executive Director of the Coos County Historical Society in Coos Bay.**

It is therefore RESOLVED:

That the Energy Trust of Oregon, Inc., Board of Directors elects Anne Donnelly to the Energy Trust Board of Directors, for a February 2013-2016 term.

Moved by: Alan Meyer

Seconded by: Debbie Kitchin

Vote: In favor: 10

Abstained: 0

Opposed: 0

Alan introduced Resolution 658. The Nominating Committee nominated President John Reynolds, Vice President Debbie Kitchin and Treasurer Dan Enloe to continue to serve as officers on the board in 2013. Rick Applegate chose not to serve another term as secretary. The Nominating Committee nominated Alan Meyer to serve as secretary for 2013.

**RESOLUTION 658
ELECTING OFFICERS OF
ENERGY TRUST OF OREGON, INC.**

WHEREAS:

- 3. Officers of the Energy Trust of Oregon, Inc. (other than the Executive Director and Chief Financial Officer) are elected by the Board of Directors at the board's annual meeting.**
- 4. The Board of Directors nominating committee has nominated the following directors to renew their terms as officers:**
 - John Reynolds, President**
 - Debbie Kitchin, Vice President**
 - Dan Enloe, Treasurer**
- 5. Rick Applegate will not be renewing his service as Secretary, and the nominating committee has nominated Alan Meyer to become the new Secretary.**

It is therefore RESOLVED that the Board of Directors hereby elects the following as officers of Energy Trust of Oregon, Inc., for 2013:

- John Reynolds, President**
- Debbie Kitchin, Vice President**
- Alan Meyer, Secretary**
- Dan Enloe, Treasurer**

Moved by: Alan Meyer

Seconded by: Ken Canon

Vote: In favor: 11

Abstained: 0

Opposed: 0

President's Report

John Reynolds suggested adding an appendix of energy acronyms to the board packet. Ken suggested to add common energy terms as well, and has a publication in mind to draw from. This recommendation was taken into account by staff for subsequent board packets.

John Reynolds presented on 2012 energy statistics and milestones. John thanked Roger Hamilton for his help on the presentation. There was a 96 percent increase in electricity generation capacity from natural gas power plants in the U.S. between 2002 and 2012. April 2012 was the first time the U.S. generated the same amount of electricity from natural gas as from coal. For several years, the share of coal generated electricity has been declining. Plentiful natural gas supplies caused the fuel's price to drop to a 10-year low in 2012.

John showed a graph comparing how much it costs to charge an iPhone 5 (\$0.41 per year) to other electronics. Portable phones use much less energy than laptops, which use much less than desktops. He said the costs are a national average, and the take away is the appropriate use of technology, to use the device that consumes the least energy. Ken pointed out that the graph hides the many data centers needed for the devices to operate.

By 2017, the U.S. will become the largest oil producer, overtaking Saudi Arabia in that year. There will be a significant increase in onshore crude oil production, while improved fuel efficiency in transportation will also lead to a gradual decrease in oil imports. These two trends indicate that the U.S. will become less reliant on energy imports.

2012 was the warmest year ever recorded in the contiguous U.S. Through November, the year's national average temperature was 3.3 degrees above the 20th century average. With higher temperatures, more air conditioning will be used and home energy consumption will spike even higher.

The average fuel efficiency of cars sold in the U.S. reached a record high at 23.8 miles per gallon. Consumers also ranked fuel efficiency as their highest priority when shopping for a vehicle. November was the biggest month for electric vehicle sales in the U.S.

One in three households have a smart meter. Smart meters have grown fivefold during the last five years, and provide utilities with more control over loads. It is projected over one-half of U.S. households will have a smart meter by mid-decade.

John said his sources for the presentation were from Think Progress and Barry Fischer, head writer at Opower.

Committee Reports

Evaluation Committee (Debbie Kitchin)

Debbie said the Evaluation Committee notes in the board packet are from the December meeting. The committee met today and those notes will be available in the next board packet. Debbie highlighted the topics presented at the December meeting. The committee reviewed the SB 838 evaluation and came to agreement for staff to provide earlier notification to board members if there are issues with draft evaluations. In the Existing Homes program process evaluation, key takeaways included the program making progress with reaching moderate income and manufactured homes

customers. Recommendations from the evaluation included modifying the training for energy advisors, working more on customer engagement and working with rural contractors to revise the rating system for trade allies when there is a smaller work pool. Debbie said some recommendations are already being incorporated by the program. The committee reviewed an evaluation on the Building Performance Tracking and Control Pilot. The pilot reviewed three different types of controls, EIS, EMS and AOS, which all work best in a specific type of building. Debbie said new technologies are sometimes difficult to get customers to invest in. The pilot is beneficial and an important stage to assess barriers to customer adoption.

Fred: Energy information systems are designed to give fairly simple feedback to facility operators and HVAC contractors. Energy management systems are control systems. The pilot includes energy management systems for smaller buildings, including restaurants. Automated optimization software is used to optimize controls on chillers.

Debbie: They are all in the arena of energy operations management. One of the barriers is getting enough participants because the technologies are new.

Juliet Johnson: Are these the types of models or systems needed for a pay-for-performance pilot?

Fred: The design of the Building Performance Tracking and Control Pilot was based around using HVAC contractors to help owners manage buildings. Equipment was selected to fit into specific vendor and customer needs for various types of buildings and the type of relationships they have. You could build energy feedback for a pay-for-performance pilot. Right now, this pilot is not a validation of that approach and does not cover a whole building installations. Because this was not the design of the pilot, we have not completely pursued whether these systems would be applicable for pay-for-performance.

Debbie continued her committee report. The committee reviewed the Path to Net Zero Pilot evaluation. Project timelines have stretched out or fallen off, while other projects have come on. This is partly due to the recession. One of the pilot features was to provide more technical assistance upfront to try and break barriers on standard practice, and move to buildings that are net zero or significantly above code. Some projects have been involved for several years and they have not yet broken ground. Debbie commented that it is interesting to track these projects and their evolution from design to building to commissioning.

John R: Can you give us a list of the buildings in the pilot?

Fred: We can in the instances where we have their permission. Some of these projects are willing to give us that release.

John: I would be interested in seeing a list of the participants.

Debbie: There are a few that are public projects.

Fred: We will check what we can give you under our standard policy, who we have release forms with and get back to you.

Debbie: We do know the types of buildings. They range from small to large commercial buildings. It is nice to have a variety of projects.

Finance Committee and Compensation Committee (Dan Enloe)

Dan said the board packet contains the November financials, and the good news of the whole year will be in the next packet. Dan directed the board to review the graphs within the financials and

explained how they show Energy Trust picking up speed in November. From other materials not in the board packet, Dan is hearing significant activity closed out the year.

Margie: I will go through 2012 preliminary details in my staff report later this afternoon.

Dan said Energy Trust typically sees a fourth quarter rush as people work to get projects completed, to spend available budget and to meet tax deadlines. The trend seen in the November graph is following the usual trend. The Compensation Committee has been watching investment allocations for employee plans, which are doing well. A few accounts are being monitored but there are no large concerns. The committee is seeing a decent return on the plans. Also discussed at the December Finance Committee meeting were adjustments in 2013 plans and budget as they were being finalized that month.

At the next board meeting, Dan will be able to speak to the full year.

Policy Committee (Alan Meyer)

Alan commented Roger does a thorough job of his committee report-outs and, in Roger's absence, encouraged Ken to jump in if anything was left out. Alan informed the board of the Policy Committee meeting in December. The committee discussed Energy Trust participation with an urban small hydropower project with the City of Portland. The project would use a "run of river" system, and was seeking a \$700,000 incentive from Energy Trust. Staff brought the project to the committee for review. Concerns were raised given this project would have been the first use of the technology in this specific type of setting. After consideration, Energy Trust declined to participate.

Margie: The City of Portland approved the permit associated with this project and apparently has postponed the construction schedule for it. I received a call from a representative on the project that the project was resubmitted to Energy Trust with modifications, including the financials, and is back for Energy Trust staff review. We will keep you posted on how this progresses.

Alan continued his committee report. The committee reviewed a Portland State University energy-efficiency project and proposal involving General Motors and working through Bonneville Environmental Foundation to buy the carbon offsets. The committee agreed that would be okay for a one-year period, largely because carbon reduction is not an explicit part of Energy Trust's mission.

Dan: If there is one project, can you get one set of Renewable Energy Certificates, RECs, and one set of carbon credits?

Alan: This project does not have RECs as it is an energy-efficiency project.

Alan said the committee also reviewed status reports on utility data sharing agreements, funding negotiations, cost-effectiveness issues and outreach to the Oregon legislature. Energy Trust is expressly prohibited from lobbying. We are engaged in providing informational briefings.

Alan said the most recent Policy Committee meeting was January 29. The committee discussed preliminary results from 2012, which look quite favorable regarding reaching and exceeding stretch goals. The committee also received an update on a longstanding OPUC fuel switching, docket also assigned to an Administrative Law Judge. The Administrative Law Judge listed three questions:

- 1) What are the Energy Trust's policies and practices regarding residential fuel switching related to space conditioning? What outreach and messaging does Energy Trust engage in related to this type of fuel switching?
- 2) Is fuel switching actually occurring?
- 3) Do the answers to questions 1 and 2 indicate a need to modify Energy Trust policies?

Alan said an issue underlying this is Energy Trust no longer provides an incentive for gas furnaces and does incent high efficiency heat pumps. One of the natural gas utilities is claiming this encourages fuel switching.

Dan: For an example, let's say it is time to get a new furnace at home. If you looked at a gas furnace versus an electric furnace, and the difference in cost is Energy Trust paying the customer to switch fuels?

Fred: We pay some of the cost difference between the most frequently sold heat pump and a more energy-efficient heat pump, but not all the difference. If you want to switch fuels you have to cover the cost of the switch, plus some of the cost for the more efficient equipment. We are paying for the better unit, and still, not all of that unit cost.

Alan said with cost effectiveness, the concern is the low cost of natural gas results in some of the Energy Trust measures no longer being cost effective. Energy Trust did receive a waiver on gas weatherization from the OPUC. A second request has been made, which was not approved, and now there is an accelerated timeline for review of measures.

Margie: It is not that the second exception was not approved; it just has not been approved as of this time. It is under currently under consideration by the OPUC staff.

Fred: The second exception is under review with the staff at the OPUC. Through that review, for some measures that do not appear to be cost-effective on a one-off basis, there will be a period of time to review them and see if they meet the criteria for exceptions included in UM-551, the PUC's cost-effectiveness rule. These include market transformation, measure interdependencies and some other elements. The request argues that New Buildings and New Homes are really market transformation and should not be considered on a one-year basis. Other measures would be reviewed again six months after the date of OPUC commissioner review.

Juliet: The public meeting has been set for March.

Completing the committee review, Alan said Energy Trust conducts legislative bill tracking and legislator outreach. More than 1,800 bills have been introduced into the Oregon legislature, and a number include energy issues.

Staff Report

Executive Director Staff Report to the Board

Margie began her presentation by describing a recently completed New Buildings project, the Kaiser Permanente Westside Medical Center in Hillsboro. The center, which includes a hospital, medical office building, central utility plan and parking garage, will open in August 2013 and is one of only 50 hospitals in the world designed to LEED® Gold standards. Energy Trust is lucky to have one in its service territory. Energy Trust's role was to provide early design and technical assistance. Projects installed included energy-efficient lighting, occupancy sensors, day lighting, a high-performance building envelope, a heat recovery chiller and a 100-kW solar array on the parking garage. Another design feature is white paint in the parking garage to reduce electricity needs and cut in half the

number of lighting fixtures needed. The participant received more than \$500,000 in Energy Trust incentives, and is estimated to save 2.8 million kWh and 63,700 annual therms, and generate 88,000 kWh. Collectively, the three buildings will save 27 percent more energy than required by code.

Ken: Does it have an electric charging station?

Margie: I can look into that for you.

Margie gave a review of preliminary 2012 results, emphasizing that the results may change as Energy Trust completes its regular annual reporting process. For both electric and natural gas savings, Energy Trust exceeded stretch goals, exceeded all utility Integrated Resource Plan goals, and exceeded stretch goals for each utility with the exception of Cascade Natural Gas territory where Energy Trust was within 1 percent of meeting the stretch goal. Results show preliminary electric savings of 52.9 aMW, 108 percent of the 48.8 aMW stretch goal.

To provide context, Margie said it was not very long ago when Energy Trust was at 30 aMW for annual electric savings. Recently she was reminded by a colleague at the OPUC that at some point Energy Trust savings acquisition may level out, which still means success. Energy Trust continues to grow and to acquire significantly more savings each year. This is happening in an environment that was quite uncertain at the start of 2012 given changes to the state's Business Energy Tax Credit. Energy Trust was still able to fill the pipeline and get unprecedented results.

Preliminary natural gas savings are 5.9 million annual therms saved, 104 percent of the 5.7 million annual therm stretch goal. On the renewable energy side, over 5 aMW was generated; 2.5 times more than 2011 with considerable solar activity.

Ken: How much of this is due to the lumpy nature of how projects completed?

Margie: This is always lumpy. In 2012, we had several biopower and small wind projects carry forward into 2013. We are seeing nice diversity in technology while delivering on expectations.

Ken: How much of the 5 aMW is solar?

Margie: 3.29 aMW.

Thad: This is a bit of an unusual year as we had three large solar projects complete.

Margie described that these positive results are even more exceptional as they were achieved while spending less than projected. Preliminary levelized costs are well under OPUC metrics. These results also raise interrelated questions that need to be addressed. Energy Trust needs to examine how to strengthen its year-end forecasting capability. At the end of the year with an annual budget of approximately \$170+ million, the available cash balance, minus committed and dedicated funds and cash reserves, was \$11.5 million, which is quite good. Energy Trust has worked with PMCs to strengthen forecasting and we want to see if our approach and methodology can become even more accurate. It may have to do with more frequent forecasts, especially at the end of the year. The last forecast for 2012 was in October.

Dan: At Intel, I am watching supply chain and inventory fluctuations, and noticed how it is siloed. There are third-party software companies making visibility tools. Granted you are not watching inventory but it may give better visibility for IRP discussions. Some are web based.

Debbie: There are new tools entering the efficiency market for making efficiency costs more visible.
Margie: Right now, we try to influence when a project is completed, and there are always instances where projects are carried forward.

Margie informed the board Energy Trust spent less than budgeted on incentives, and derived a greater share of savings from operations and maintenance, O&M, projects rather than capital projects. This shows the success of Strategic Energy Management, SEM, for industrial customers and an SEM pilot on the commercial side. Right now, customers do not have the capital they may have in the future as the economy gains more traction. Energy Trust achieved high savings within the industrial/agriculture program with lower than predicted incentive spending. In addition, there were project delays, including biopower and wind projects moving into 2013 and beyond. Energy Trust was prepared to support projects more given the transition from the Oregon Business Energy Tax Credit; in the end, spending more to reach goals was not necessary.

Margie said another related need is to refine terminology for Energy Trust's different goals, making sure everyone agrees on the terminology for meeting Integrated Resource Plan, IRP, targets for utilities. This was a topic of several budget and action plan comments we received. We believe we should develop a budget that allows some reserve cushion while asking only for only what is needed to achieve goals. Margie said this will lead to a discussion on reserves.

Energy Trust has two types of reserve accounts, which have been brought to the board before. One, the interest reserve account, is used to account for weather fluctuations and any associated under-collection by utilities. The other, the program reserve account, is 5 percent of total annual budgets for each utility. The board approved using the reserve accounts last year for both solar and Existing Buildings.

Looking ahead, we need to begin answering the following questions: What is the terminology used to define our goals defined, is there a range of goals, how much is available in reserve accounts and how should reserve accounts be accessed? These interrelated questions need to be addressed with various stakeholders to enhance how Energy Trust established goals and sets its budget.

Margie outlined a proposed process to complete an internal analysis of carryover, strengthen forecasting, clarify goal terminology and specify reserve account usage. This month, staff is completing the analysis of how 2012 concluded. In March, staff will review the process, identify forecasting improvements and develop various options regarding Energy Trust's funding cycle, goal setting, goal terminology and reserve options. Options will be vetted with the Policy and Finance committees, OPUC, each utility, the Conservation and Renewable Energy Advisory Councils, and customer groups like Industrial Customers of Northwest Utilities and Citizens' Utility Board of Oregon. Staff is targeting the Utility Roundtable meeting in May and recommends this be an agenda topic because it cuts across the organization and affects each utility. Coming out of that setting, staff will refine and implement the recommendations for the 2014 funding and budget cycle. If board action is required, staff will bring any items to one of the board meetings after the June strategic planning workshop. Margie said she has referenced these subjects and the proposed process to her contacts at the utilities.

Mark: You mentioned looking at something different than an annual budgeting cycle. How does that address or add a different twist to forecasting?

Margie: Currently we have an annual funding cycle. We are not proposing to make a longer cycle but proposing how to look at steps that happen within the cycle. For example, we do not know the carryover amount we will have until well after the utilities file any tariff adjustments they may need. Is there any latitude or flexibility for when the tariff would take effect?

Dan: We are the tail of the government wagging. If they set some deadlines for June, it may iron out your December issues.

Margie: Sue and I have talked about whether we just pushing the problem out? How much can we know, how certain and flexible can we be? What we want to do is collect only what we need with a little reserve and not have ratepayer dollars sitting.

Alan: I have an example from a previous job where we shifted deadlines. We could shape behavior if it is important to us.

Dan: And you have multiple programs, maybe you could set the deadlines differently for them.

Margie: We are dealing with human behavior, which is complicated and not without some opportunity.

Juliet: Can you clarify what analysis is being done in February?

Margie: Internal analysis related to closing our books for the year related to actual revenues, expenditures and carryover by utility along with final savings and generation results.

Margie continued her staff report with program highlights. The Quarter 4 report is nearly complete, and will be published on February 28, and the following is a sampling of program activity from that quarter. The Solar program has grown substantially over time. The first solar system was a 22-kW system installed in 2002 at the Brewery Blocks in Portland, before Energy Trust had much of a formal program. In 2010, the program hit a milestone of 2,500 solar electric systems, with cumulative capacity of 20 MW. By August of 2012, the program hit another milestone of 5,000 solar electric systems and by the end of 2012 the cumulative total capacity reached 50 MW. This is a combination of small systems on household rooftops up to utility-scale projects. A significant part of the 50 MW capacity is from three different utility-scale projects: 2.6 MW Black Cap delivering power to Pacific Power, 1.75 MW Baldock Project delivering power to PGE and the 5.7 MW Outback project delivering power to PGE. The Renewables Sector also spent time last year redesigning its Small Wind program and re-launching it. The program now has a robust pipeline for 2013.

The American Council for an Energy-Efficient Economy, ACEEE, bestowed its third National Exemplary Energy Efficiency Program Awards. Two Energy Trust programs received awards. New Buildings received an exemplary award in commercial new construction, and was one of two programs nationally recognized. Production Efficiency received an exemplary award in industrial and large customers, and was one of three programs nationally recognized. Awards will be presented at one of two different national ACEEE conferences, after which, Energy Trust can publicly announce them.

In the Production Efficiency program, the total number of projects in 2012 is about the same as 2011, even though bonus incentives were discontinued half way through this year. The program's success is partly due to streamlined track offerings and emphasis on small industrial and agricultural projects.

The Commercial Sector completed its first one-year pilot for Commercial Strategic Energy Management, SEM. Eight organizations participated, and included large retail, universities and

municipalities. Estimated savings of six million kWh and 127,000 annual therms of natural gas helped the Existing Buildings program achieve its goals. A second cohort is launching in 2013. Also for Existing Buildings, the program's pipeline is the strongest it has ever been in program history. Energy Trust continues to reach this sector and emphasize more and more small commercial building projects. The program continues to work with the Oregon Department of Energy on the Governor's Cool Schools program, with eight retrofit projects completed and 14 in progress.

New Buildings is seeing growth, which includes savings from data centers ranging in size from less than 10 kW to more than 10 MW.

Highlights in the Residential Sector include the first Energy Performance Score, EPS, rating being awarded to an existing home this past January. The New Homes program has rated 3,000 homes with an EPS, which is equal to approximately 25 percent of the market share of new homes. Also in the fourth quarter of 2012, the first net zero home was constructed by Solaire Homes and received a score of zero for its EPS.

Mark: Is there uptake at all with the Regional Multiple Listing Service, RMLS, with employing the score?

Margie: There is more emphasis within the real estate community. We have Real Estate Professional Allies promoting the EPS and they have helped us achieve this success. Another area is our work with the mortgage and lender industry.

Margie gave an overview of Energy Trust outreach and collaboration with Cascade Natural Gas district staff. Peter West and Susan Badger-Jones are meeting with district staff, customers and Chambers of Commerce in East Oregon. This is part of Energy Trust's efforts to better serve rural areas and Eastern Oregon.

The City of Portland launched its Bucks for Buildings project, where commercial buildings within the city limits can apply for a limited-time rebate to bring down the costs of energy-efficiency improvements. The initiative is funded from \$300,000 of remaining American Recovery and Reinvestment Act (ARRA) funds. Qualifying efficiency improvements include insulation, heating and cooling, lighting and controls, and food service. Participants can receive up to 50 percent off project costs, and nonprofits can get up to 75 percent off project costs. Rebates range from \$1,000 to \$30,000. Energy Trust is coordinating with the city and projects must be installed by Energy Trust trade allies. Reservations are due May 1 and since the offer launched, Energy Trust's phones have been ringing off the hook. PGE is helping promote the offer.

Ken: Pacific Power also serves Portland, are they working on this?

Amber: I am not sure. Our trade allies can serve both utilities.

Margie said the utility data sharing effort is on schedule. Staff is working with all four utilities on how to exchange and protect the data, and notifying customers of how the data will be used. Communications with customers will start with a March utility bill notification and then it will be an ongoing effort to utilize the information.

Energy Trust developed an interactive timeline that depicts Energy Trust's 10-plus-year history, and cumulative results and benefits of customer and Energy Trust investments. The timeline was part of

an interactive display at the 10-year reception in Portland in October and is now used as an online engagement tool on the Energy Trust homepage. The timeline was recognized by an international group as a "Site of the Day," and judged noteworthy because of its creativity, usability, design and content.

The Energy Trust renovated office space received LEED® Gold for Commercial Interiors designation. This is the result of coordinated efforts with contractors, Steve Lacey, Sue Meyer Sample and Cheryle Easton.

Energy Trust was ranked 5th by Oregon Business as one of the best nonprofits to work for in Oregon. An employee survey determined this.

Margie reviewed the process undertaken to transition two program management contracts to new program management contractors, PMCs. Existing Buildings was transitioned to ICF International and Existing Homes transitioned to Fluid. Significant effort was undertaken to complete the transitions, which are now largely in place. New contractors are now serving customers, and we are at a place where we can go smoothly forward.

Ken: We make those changes in contracts for a reason. Do we have a process in place to look back after a year or two to check if we made the right decision or got out of the change what we were looking for?

Margie: We will undertake this review process starting in the first half of 2013, looking to see if we would change the process in any way to gain efficiencies. We will hire an outside contractor to review this and apply results internally to our operations if necessary. We will also look at how we manage PMCs and how we articulate our expectations. Such expectations are refined annually through changes in the scope development.

Margie closed the presentation describing Energy Trust's support of Building Operator Certification, BOC. This is a Lane Community College program developed by the Northwest Energy Efficiency Council. The classes help facility managers learn about building resource management. One participant is Scott Rogers at the InterMountain Education Service District in Pendleton. The training is very effective and Energy Trust supports it by subsidizing scholarships.

Debbie: I like the idea of leveraging an existing program, because often people get an idea and create another program when there is already something successful in place. This is a good example of being prudent with the dollars we have.

Alan: If you are offsetting the cost of the training, are we measuring results?

Fred: There are a number of evaluations of the BOC. There are average savings per square foot per participant and that is how we estimate savings.

Dave: I am used to looking at standard performance indicators. I do not see those here, something that goes year over year, or year to date. It could be savings or something else that shows year to date how we are progressing. It helps with context as discussions occur.

Margie: This is in quarterly reports and annual reports. When the reports coincide with board meetings, we provide that context. Unfortunately, this meeting was not in sync with the Q4 report.

Dan: You can also look at it and see how efficient we are at getting at acquiring each aMW. It would be fun to go back and look at that.

Margie: The OPUC revisits our minimum performance measures each year. And during the budget and action plan presentations, the board approves higher stretch goals. This provides a bandwidth we measure against both quarterly and annually. If you have suggestions on what else you would like to see, let me know.

2013 Legislative Update (Debbie Menashe)

Debbie Menashe summarized legislative activity that Energy Trust is tracking. Hannah Hacker, who conducts much of the tracking and information synthesis with John Volkman, joined her. Debbie M. reminded the board that Energy Trust does not lobby under the OPUC grant agreement, and does monitor and track legislation. Debbie referenced John V's continuing role.

Debbie M. mentioned that tomorrow is the last day for bill submission and referenced the board packet summary. She said she or John V. will provide the board with summary information throughout the session.

Hannah reviewed how Energy Trust tracks legislative bills, watching bills introduced and what is moving through committees. Energy Trust watches bills that relate to energy, and completes some analysis on bills that specifically reference Energy Trust or may affect Energy Trust programs. Some bills have been introduced in the past and are familiar.

Debbie M. provided staff perspective that the overall volume and pace relative to energy-related bills is higher this year. Energy Trust does answer questions from legislators, testify when invited and coordinate with the OPUC to provide information and support to them as they answer questions. That volume of work has increased this year.

SB 427, which reallocates the public purpose charge, is one type of bill seen in different forms. Staff will continue to monitor it.

Hannah said there are about 50 bills being tracked that relate to energy. Debbie M. referenced tracking is at a very high level at this point, and more bills may be coming through before tomorrow's deadline.

Debbie M. highlighted a few bills that would have some impact on Energy Trust programs:

- SB 561 would allow utilities to earn a rate of return for conservation programs and individual custom projects.
- HB 2793 approaches building performance scoring and may relate to Energy Trust's EPS rating. It would require Oregon Housing and Community Services to adopt rules around providing scoring for buildings.

Debbie K: Would it require a score at time of sale?

Debbie M: I do not think so, but we will see how it progresses.

- HB 2220 and HB 2794 would provide for a state energy efficiency lab, and require the Oregon Department of Energy to set up a strategic plan for such a lab to conduct audits, and examine criteria for retrofit work in all state buildings.
- Bills related to distributed generation and net metering: HB 2795, HB 2796 and HB 2812 provide for community renewable energy projects, which are solar projects that would be virtually net metered.

Dan: If an owner has multiple properties with multiple solar projects, and if there is a large project, today he would be giving back to the utility even if his other properties generated less than the building used. Are you talking about a bill that would allow for a community of metering across those structures?

Debbie M: These bills allow for community solar projects that individuals could buy into.

Julie: Since Energy Trust does not lobby, how do we work with others who work in the legislature and are closer to what is actually moving. A few years ago there was a late-night attempt to gut and stuff a bill to divert public purpose charge funds to OMSI. It is important to know what our utility partners and customer groups are hearing or proposing.

Debbie M: Our report to the board is in part derived from information that organizations in support of Energy Trust are sending us and from our basic tracking.

Margie: I also meet regularly with utilities. They share some information but probably not everything.

Jeff Bissonnette and CUB are a source of information, plus direct outreach to legislators. All these activities are information sharing with Energy Trust serving as a resource. We also have a good relationship with Governor Kitzhaber's energy policy advisor, Margi Hoffmann, and she communicates well with us.

Julie: These relationships are important and I am pleased with the progress we have made in conducting outreach.

Ken: Who is the OPUC liaison with the legislature?

Juliet: Jason Eisdorfer and Mike Doherty, and Susan Ackerman has been spending more time there.

Margie: Lisa Schwartz is another engaged party, who participates on our board. We are more engaged than ever before and that reflects greater interest in our field and acknowledgement of our expertise.

Debbie K: Do you have more information on the bill that mentions a carbon tax on fuels.

Debbie M: I can review the bill in detail and get back to you.

Debbie K: Since we already have the public purpose charge, it is not clear to me why that would be needed.

Debbie M: I will take a closer look and get more detail.

Mark: Some sort of carbon tax has been proposed in most sessions over the last decade, though not one has gotten a hearing.

Mark: Do we provide information to legislators about our work in their districts?

Margie: Yes we do and that it is of particular interest to them.

Debbie K: How will the board will be updated on legislation?

Debbie M: We will send out updates by email, the first one next week after all the bills are in. Afterwards it will be once or twice between board meetings.

Break

The board took a break at 2:12 p.m. and reconvened at 2:27 p.m.

Staff Report continued

Program Feature Presentation: Strategic Energy Management (Kim Crossman)

Kim Crossman, industrial and agricultural sector lead, presented on Strategic Energy Management, SEM, one strategy of the Production Efficiency program. It is a substantial section and one of the newer approaches. SEM is a game changer in terms of how the program gets savings and reaches customers.

Kim gave an overview of the program. Production Efficiency provides customized energy solutions, incentives, and technical services, the latter of which tend to be as valuable as the cash incentives. Technical services take the form of delivery contractors who make participation easier and technical service contractors who complete studies or provide technical services. Energy Trust leads with the solutions.

In the Pacific Northwest, the term energy management had a meaning before SEM existed. It covers everything: conservation, efficiency, demand response, combined heat and power, and on-site renewable. Energy management is a common term and used for more than 25 years.

SEM is an umbrella term referring to a variety of energy management and operational practices like setting goals, being clear on who is accountable to meeting goals and learning how they are using and wasting energy. In an industrial facility, this is no small task, it is an elaborate practice. Industry uses energy and production data to tune operations, reduce energy intensity and reduce energy costs. This approach hangs on framework of continuous energy improvement, a fairly common practice in the industrial sector. This really came up through a series of changes in manufacturing practices 20 years ago or so, sometimes called Lean Manufacturing.

Dave: The hardest part of continuous improvement is keeping it going and maintaining it. The driver at the company is critical.

Kim: One of the reasons the industrial sector is able to adopt SEM more quickly is because of its background in continuous improvement. This is harder to do in the commercial sector, though we are starting to see success in our Existing Buildings program.

Kim said that SEM works within a company's existing practices; it is not asking them to learn how to do their business in a new way. Objectives of the SEM offering are to increase awareness, and increase commitment and capacity to manage energy. Energy Trust acquires direct energy savings from no- and low-cost actions. The Northwest overall is going in Energy Trust's direction by analyzing energy savings associated with operational and behavioral changes. BPA is right behind Energy Trust. Energy Trust is deeply influencing the rest of the country in what they think is possible with SEM. The industries themselves will continue the activity if it brings them direct value and benefit. The direct value is energy savings, and some is human resources, such as employee engagement.

Alan: I know that Tennessee Valley Authority is adopting a mini version of the programs we have in the Northwest. It hired someone from Seattle City Light. It is a start.

Kim: And AEP in Ohio. They hired one of our contractors to do it.

Kim informed the board the Northwest has more activity in this area in the market than anywhere else in the country. This also means the region has strong contractors learning how to do this.

Ken: Before Energy Trust, NEEA started working on this 10 years ago with food processors. This shows the whole value chain. There is great value throughout this whole process.

Kim said another goal of SEM is to create persistent SEM practices. The question of whether the program is there yet is still up in the air as the offering is still being evaluated and the program has only been doing this for four years. Energy Trust's role is to bring this quickly to scale. The program is offering more of this to more of its customers by an order of magnitude more than anyone else has done so far.

Kim informed the board that the Production Efficiency program offers three different SEM versions. Industrial Energy Improvement, IEI, was a pilot for two years and has since been a program offering for the past two years. One cohort per year goes through IEI and there are eight to twelve companies per cohort. They receive one year of training and technical support, then they become graduates of SEM training.

Corporate SEM has the same scope as IEI and it is one on one. Sometimes it is a single plant with multiple sites. Overall, cohort-based SEM has higher customer satisfaction, as people learn so much from their peers. The program tends to funnel participants toward cohort-based training unless there is a good reason not to.

Mark: Do you have any performance requirements of the participants?

Kim: We place on them a clear sense of role and responsibility as a participant in IEI. We are not just working with one person at a plant. What qualifies them for IEI is a high level of motivation and having an executive sponsor with certain responsibilities, a data manager and two champions. We require them to bring a lot of resources to the table to engage with us for a year. It is not a light touch, but very intensive process. With one or two exceptions, people bring that.

John: Do you have competitors in the same cohort?

Kim: Theoretically, we design them so competitor businesses are not in the same cohort. We recently had some companies say it is okay to use their name when recruiting, and then companies who supply them have also joined. Similar supply chain companies join in.

Ken: Do you follow through to make sure you do not run into anti-trust claims?

Kim: We are not specifically choosing supply chains to participate.

Ken: It is one of the good reasons not to have competitors in one cohort. If you have one or more similar supply chain participants, you may run into anti-trust compliance issues.

Kim: It's true that bringing them together with their peers means they start talking with each other, and that we don't control that conversation. With the 2nd cohort of IEI in 2010, the group created its own LinkedIn group. Energy Trust removed itself from the LinkedIn group when they started talking about getting together to approach the PUC.

Kim described the third SEM approach. Core Improvement is a pilot offering that started in 2012. It offers almost the exact same solution as IEI but to small industries. This is Energy Trust testing how to scale SEM for every size of industrial business. The program had assumptions about barriers that small industries would need to overcome like staffing and budget. So far, they are doing just as well or better than the large industries did in IEI. It turns out higher level decision makers are at the table. The board saw one of the Core participants at the 10-year Portland reception in October, Deborah Lark. It may end up that there really is no difference between SEM in small versus medium to large facilities.

SEM has grown to represent 22 percent of electric savings in 2012 for the industrial sector. Kim showed a graph depicting sources of savings for the sector. Each year, SEM gets a little bigger piece of total savings. In 2010 there were two cohorts of IEI. In 2011 there was one cohort, which is why the bar chart shows less SEM savings in 2011. In 2012 the graph shows one IEI cohort, one IEI maintenance cohort and one corporate SEM cohort.

Jeff: Are these deemed savings?

Kim: No, we do custom analysis. We use meter data to build models with production or whatever other variables are contributing to energy use and build a monitoring, targeting and reporting model. What the customer is really doing is reducing energy intensity, energy unit per output unit. Sites are seeing reductions in energy intensity between 2-10 percent.

Alan: Is there participation outside the Portland metro area?

Kim: Yes, some. One reason for Corporate SEM was to get out to southern Oregon and elsewhere where we could not get a large enough group together for a full cohort. We would like to put together a cohort for Southern Oregon and Eastern Oregon using the Core model for smaller industries. We are trying to diversify.

Kim said SEM has grown to represent 13 percent of gas savings in 2012. SEM saved 122,000 annual therms in 2011 and 106,000 in 2012. In each case, it was only two sites and was because they were eligible for gas services from Energy Trust. It goes to show that the SEM toolset can be used on other sustainability objectives.

Ken: If you have gas transport customers and they are eligible because they are qualifying electric customers, are we not allowed to claim the gas savings because it is not funded through a public purpose charge?

Kim: That's correct.

Margie: Can you explain eligibility for gas services from Energy Trust?

Kim: Every business in Oregon is eligible for gas incentives unless they buy transport gas, gas on the market, which is true for most large industrial customers. They also come off and on transport depending on what is happening in the market. This is a complicated program piece to manage in order to make sure we are serving customers when they are eligible for our services.

Kim said the Northwest has been leading the charge on SEM for the past seven years. It started with NEEA's continuous energy improvement. Now Energy Trust has IEI, Corporate SEM, Maintenance SEM and Core Improvement. BPA has high-performance energy management and energy project manager. Energy Trust regularly has plants in one of its offerings and they have a sister plant in BPA

territory. There is also a lot of work federally, like the U.S. Department of Energy Superior Energy Performance, a type of gold standard for SEM. They are working on it and it is not fully available in the market yet. There is an important role for the U.S. Department of Energy in this space. The industry needs capacity built with consultants, knowledge built with customers.

Dan: Why keep working with the U.S. Department of Energy program?

Kim: They have some capabilities in areas Energy Trust does not. We advise the U.S. Department of Energy on its program design. It is one of the few in the country working on industrial efficiency. It has a long-term effect on the market overall. We do minimize the amount of Energy Trust time spent but also actively advise. We need to be in conversation as SEM is a new type of approach and we need to learn from each other quickly.

Mark: The U.S. Department of Energy advocated in the development of ISO 50001 and voiced the perspective of North America. It will become a standard for international industrial efficiency.

Kim: We do have a few customers exploring it and finding that the documentation process to get the standard is difficult.

Dave: It is also a challenge between continuous improvement and ISO, as ISO wants to document and continuous improvement is constantly changing.

Kim said that SEM is a behavioral program. When recruiting for SEM, the program looks at organizational readiness. Savings themselves are behavioral savings that come from employee changes. SEM also uses top-down analytics to determine the savings. SEM is a game changer because it creates a deep and comprehensive approach to energy use now. It also increases customer ability to handle complex process efficiency projects, emerging technologies, demand response and combined heat and power. Plus, the energy models created can change how programs are designed or savings are evaluated in the future.

Energy Trust is cultivating a community of SEM practitioners, energy champions, in industry. They can influence each other better than Energy Trust could. The SEM participants present to each other throughout the cohort. Those same speakers go back to their organizations and executives, and Energy Trust helps them to speak about the process and changes they are undertaking. In addition, some have volunteered to be available if potential oncoming companies have questions. Energy Trust also puts on a breakfast twice a year that any participant can attend and share their experience and what they have learned. There are up to 70 companies now.

After one year of intensive SEM training and technical support, the participant can be eligible for SEM Maintenance services.

Buzz, RHT Energy: Do you know the realization rate yet?

Kim: We have very preliminary evaluations showing a 100 percent realization rate. There are no free riders. The over-estimates and under-estimates on technical realization seem to balance out.

Margie: Buzz is one of our Program Delivery Contractors working with Kim and JP on production efficiency projects. We manage our production efficiency program in-house and augment that with competitively bid contracts to Program Delivery Contractors who have specialties and expertise in the field. This is a kind of hybrid approach to program management and delivery.

Kim: With SEM in the industrial sector, Buzz's group as a PDC recruits for participants and gets to count the energy savings realized towards their goals. JP Batmale is manager for all things industrial SEM.

Kathleen Belkhat: I also work on the Commercial segment of SEM.

Kim: I encourage the board to read the article sent yesterday. It provides a higher level view.

Julie: At OSU, we help engineering teams at research organizations get their message higher up the organizational chain via video, a short, five-minute video. It can be highly effective.

Adjourn

The meeting adjourned at 3:13 p.m.

Next meeting: The next regular meeting of the Energy Trust Board of Directors will be held Wednesday, April 3, 2013, at 12:15p.m. at Energy Trust of Oregon, Inc., 421 SW Oak Street, Suite 300, Portland, Oregon.

/S/ Alan Meyer
Alan Meyer, Secretary