

Board Meeting Minutes—156th Meeting

February 22, 2018

Board members present: Susan Brodahl, Melissa Cribbins (phone), Warren Cook (ODOE ex officio) Dan Enloe, Roger Hamilton, Lindsey Hardy, Mark Kendall (phone), Debbie Kitchin, Alan Meyer, John Reynolds, Anne Root, Eddie Sherman, Steve Bloom (Oregon Public Utility Commission ex officio), Janine Benner (phone, ODOE ex officio)

Board members absent:

Staff attending: Mike Bailey, Tom Beverly, Eric Braddock, Scott Clark, Amber Cole, Michael Colgrove, Phil Degens, Becky Engel, Sue Fletcher, Fred Gordon, Kate Hawley, Jed Jorgensen, Susan Jowaiszas, Steve Lacey, Debbie Menashe, Dave Moldal, Alex Novie, Amanda Potter, Dan Rubado, Greg Stokes, Julianne Thacher, John Volkman, Jay Ward, Peter West, Whitney Winsor, Mark Wyman

Others attending: JP Batmale (OPUC), Anne Snyder Grassman (Portland General Electric), Sue Hall (Climate Neutral Business Network), Rick Hodges (NW Natural), Mike Christianson (Energy 350), Whitney Rideout (Evergreen)

Business Meeting

Debbie Kitchin called the meeting to order at 9:05 and asked for changes to the agenda.

General Public Comments

The president may defer specific public comment to the appropriate agenda topic. 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. December 15, 2017 Board meeting minutes

Moved by: John Reynolds

Seconded by: Roger Hamilton

Vote: In favor: 11

Abstained: 0

Opposed: 0

President's Report

Debbie Kitchin shared that board members Debbie, Roger Hamilton, Alan Meyer, Susan Brodahl and Ken Cannon attended a meeting with four Energy Trust senior staff members, OPUC staff and Commissioner Steve Bloom. Called by the OPUC, the meeting was to discuss Energy Trust's direction and priorities. Energy Trust's primary mission is resource acquisition. The OPUC, board and staff agree that when the organization considers new initiatives, they need to be evaluated based on how they support resource acquisition goals. As a result of the meeting, the board wants to strengthen communications between Energy Trust staff, board and the OPUC. Going forward, OPUC Senior Regulatory Affairs Advisor Elaine Prause will participate in board Policy Committee and Strategic Planning Committee meetings to provide OPUC perspective on critical issues. Additionally, OPUC liaison JP Batmale has started spending one morning a week at the Energy Trust offices to be more

available for discussions with Energy Trust staff. The board wants to ensure Energy Trust's relationship with the OPUC is primary.

The board discussed several concerns shared at the meeting, including Energy Trust's communications around a potential proposal to administer Oregon's community solar program and Energy Trust's Diversity, Equity and Inclusion (DEI) Initiative. The Policy Committee will develop criteria and approach for evaluating outside opportunities like community solar, and Elaine will be part of that conversation. The Policy Committee will also continue to discuss Energy Trust's DEI Initiative.

Commissioner Bloom acknowledged that he was the catalyst for the meeting because he is relatively new to Energy Trust's board, and he noted that the meeting was productive and helped improve communications. It is the OPUC's role to oversee Energy Trust, and this oversight is currently being evaluated through an audit from the Secretary of State.

The board observed that it is the board's responsibility to make sure Energy Trust is heading in the appropriate direction.

The board noted appreciation for the meeting with the OPUC as well as a recent board training on diversity.

The board noted that Energy Trust's articles of incorporation give Energy Trust discretion in how it delivers cost-effective energy savings. The grant agreement also notes that Energy Trust serves all ratepayers.

Board members asked if the OPUC's concerns are about Energy Trust being distracted from its core goals. Board and staff present at the meeting responded that the concern was about how Energy Trust's community solar and DEI work was communicated to the OPUC and board. Energy Trust should invite more conversation about how it would balance new opportunities with primarily responsibilities and articulate the connection between these new opportunities to its primary mission and goals. Another concern was that more data is needed for DEI.

The board asked if the OPUC has a DEI initiative. The OPUC does not have a DEI initiative but it has no objection to Energy Trust's DEI initiative. It just wants to make sure Energy Trust is proceeding logically and reasonably.

The board asked how Energy Trust can improve DEI communications so its DEI work can progress. Commissioner Bloom responded that Elaine's attendance at board committee meetings will help improve communications.

The board observed that DEI efforts will help Energy Trust achieve its mission and goals to serve all utility ratepayers.

Nominating Committee

John Reynolds

**RESOLUTION 831
ELECTING MARK KENDALL, LINDSEY HARDY, ANNE ROOT, AND EDDIE
SHERMAN**

TO NEW TERMS ON THE ENERGY TRUST BOARD OF DIRECTORS**WHEREAS:**

1. The terms of incumbent board members Mark Kendall, Lindsey Hardy, Anne Root and Eddie Sherman expire in 2018.
2. The board nominating committee has recommended that these members' terms be renewed.

It is therefore **RESOLVED** that the Energy Trust of Oregon, Inc., Board of Directors elects Mark Kendall, Lindsey Hardy, Anne Root and Eddie Sherman incumbent board members, to new terms of office that end in 2021.

Moved by: Alan

Seconded by: Susan

Vote: In favor: 11

Abstained: 0

Opposed: 0

**RESOLUTION 832
ELECTING OFFICERS OF
ENERGY TRUST OF OREGON, INC.**

WHEREAS:

1. Officers of the Energy Trust of Oregon, Inc. (other than the Executive Director and Chief Financial Officer) are elected each year by the Board of Directors at the board's annual meeting.
2. The Board of Directors Nominating Committee has nominated the following directors to renew or be appointed to terms as officers:
 - Roger Hamilton, President
 - Alan Meyer, Vice President
 - Mark Kendall, Secretary
 - Susan Brodahl, Treasurer

It is therefore **RESOLVED** that the Board of Directors hereby elects the following as officers of Energy Trust of Oregon, Inc., for 2018:

- Roger Hamilton, President
- Alan Meyer, Vice President
- Mark Kendall, Secretary
- Susan Brodahl, Treasurer

Moved by: Anne Root

Seconded by: Lindsey Hardy

Vote: In favor: 11

Abstained: 0

Opposed: 0

President's Report

Roger thanked Debbie for her service and leadership as board president. Debbie thanked board members for time, contributions and points of view. Debbie also thanked Energy Trust staff.

Roger provided brief personal background, describing his childhood in Northern Virginia, service in the Peace Corps in Ghana and service in the navy. He described his career, which included working on a ranch in Eastern Oregon, serving as a county commissioner, serving on the Oregon's State Parks and Recreation Commission, working for the Pacific Rivers Council, serving as an Oregon Public Utility Commissioner, serving as energy advisor to the governor, and then starting a consulting firm for renewable energy transmission.

Roger appreciated the DEI workshop for board members and thinks DEI can help improve Energy Trust's effectiveness by better serving underserved populations.

**RESOLUTION 833
BOARD COMMITTEE APPOINTMENTS**

WHEREAS:

1. Energy Trust of Oregon, Inc. Board of Directors is authorized to appoint by resolution committees to carry out the Board's business.
2. The Board President has nominated new directors to serve on the following committees.

It is therefore RESOLVED:

1. This resolution supersedes Resolution 794, adopted by the board at its February 22, 2017, meeting.
2. That the Board of Directors hereby appoints the following directors to the following committees for terms that will continue until a subsequent resolution changing committee appointments is adopted:

Audit Committee
Anne Root, Chair
Melissa Cribbins
Mark Kendall
Karen Ward, outside expert
Roger Hamilton (<i>ex officio</i>)
Board Nominating Committee
John Reynolds, Chair
Debbie Kitchin
Alan Meyer
Anne Root
Eddie Sherman
Steve Bloom, OPUC (<i>ex officio</i>)
Roger Hamilton (<i>ex officio</i>)
Compensation Committee (formerly 401(k) Committee)
Dan Enloe, Chair
Melissa Cribbins
Mark Kendall
Roger Hamilton (<i>ex officio</i>)
Executive Director Review Committee
Melissa Cribbins, Chair
Debbie Kitchin
John Reynolds
Roger Hamilton (<i>ex officio</i>)
Finance Committee
Susan Brodahl, Chair
Dan Enloe

Debbie Kitchin
Anne Root
Roger Hamilton (<i>ex officio</i>)
Policy Committee
Alan Meyer, Chair
John Reynolds
Eddie Sherman
Elaine Prause (<i>ex officio</i>)
Roger Hamilton (<i>ex officio</i>)
Program Evaluation Committee
Lindsey Hardy, Chair
Susan Brodahl
Alan Meyer
Ken Keating, expert outside reviewer
Jennifer Light, expert outside reviewer
Dulane Moran, expert outside reviewer
Jamie Woods, expert outside reviewer
Warren Cook (<i>ex officio</i>)
Roger Hamilton (<i>ex officio</i>)
Strategic Planning Committee
Mark Kendall, Chair
Susan Brodahl
Lindsey Hardy
John Reynolds
Janine Benner, ODOE (<i>ex officio</i>)
Elaine Prause, OPUC (<i>ex officio</i>)
Roger Hamilton (<i>ex officio</i>)

3. **The executive director, general counsel or chief financial officer are authorized to sign routine 401(k) administrative documents on behalf of the board, or other documents if authorized by the Compensation Committee.**
4. **The board also acknowledges that the following board members have committed to attend advisory council meetings:**
 - a. **Conservation Advisory Council: Lindsey Hardy and Alan Meyer**
 - b. **Renewable Energy Advisory Council: Alan Meyer and John Reynolds**

Moved by: Debbie Kitchin

Seconded by: John Reynolds

Vote: In favor: 11

Abstained: 0

Opposed: 0

Susan requested that board members provide updates on Conservation Advisory Council and Renewable Energy Advisory Council meetings during committee reports. Board Conservation Advisory Council and Renewable Energy Advisory Council representatives agreed to do this.

Training: Board Responsibilities and Legal Obligations

Kristy Cook of Cook Legal Services provided training on board responsibilities and legal obligations.

Commissioner Bloom suggested the board reference Energy Trust’s statutes (SB 1149, SB 838) and grant agreement, which are all available on Energy Trust’s website. Energy Trust staff will send links to

board members, and Debbie Menashe will draft and share an executive summary of the grant agreement for board reference.

PMC Program Contract Extension – Multifamily

Kate Scott, multifamily program manager, and Peter West, director of energy programs, proposed to extend the contract for the Existing Multifamily Program Management Contractor (PMC) with Lockheed Martin Corporation for the first of two potential one-year extension periods, from January 1, 2019, to December 31, 2019. Staff determined that the PMC performed effectively against the contract extension criteria, which are cross-program coordination, project pipeline, innovation, teamwork and satisfactory execution of Statement of Work deliverables. Under the PMC agreement, unless the board objects to a recommended extension, the contract may be extended.

Lockheed Martin is effective and working with other PMCs, especially the residential PMCs. Kate noted that customers have been very satisfied with Lockheed Martin, with 93 percent of Fast Feedback respondents satisfied with the program and 97 percent happy with program representatives.

The board asked several questions about the focus of the multifamily program and the performance of Lockheed Martin, the current PMC, especially as compared to other PMCs. Kate continued that in Lockheed Martin's current contract term, it achieved 81 percent of gas and electric savings in 2016 and 72 percent of electric and 118 percent of gas savings goals in 2017. Lockheed Martin achieved savings goals in most program tracks, but did not achieve expected savings through the direct installation offering. When setting goals, Energy Trust underestimated market saturation for direct installation of energy-saving projects and challenges of reaching smaller properties. Barriers to direct installation include time commitment and availability of property managers to be present for installations. Another barrier is that an increasing portion of Existing Multifamily housing stock is from relatively new construction, which already has efficient products. Energy Trust is increasing its strategic use of data to analyze the market and predict savings. One of the program's goals is to reduce reliance on savings from its direct installation offering, because a finite amount of savings is available through this offering. The program is also revisiting its delivery mechanism for its direct installation offering for 2019.

Concern was expressed about staff's recommendation to extend the PMC contract in light of Lockheed Martin's performance against savings goals. Peter noted that there are multiple factors in considering extensions and multiple performance measures related to compensation in all of Energy Trust's PMC contracts, including the contract with Lockheed Martin. Lockheed Martin's did not receive all of its potential performance compensation as a result of its savings achievement under the contract.

Peter reiterated that Energy Trust's goal was too high for the Existing Multifamily program during this contract period. Energy Trust had penetrated the multifamily market faster than the subsequent analysis indicated. Our goal setting could not be timed to be informed fully by the penetration analysis. The 2018 budget includes different approaches to goal setting in light of the market penetration study. In addition, Kate explained that she is working with the PMC to increase savings. In its current contract term, Lockheed Martin has added 10 new measures that are expected to deliver savings.

The board asked questions about cost and methods of delivery in the program. Staff responded with more detail about the program.

Although one board member did express objections to the extension, the board did not act to object, and the contract will be extended through 2019.

The board took a break for lunch at 11:57.

Board Learning Topics Presentations

The board resumed at 12:07. Mark introduced board learning topic presentations. Board learning topics are about areas of interest that the board has indicated it would like to learn more about because the

topics may affect our energy efficiency and renewable energy programs or utility customers in the future. They are not intended to propose any actions and will not necessarily result in action by Energy Trust. Board will have these topics in mind as they kick off Energy Trust's 2020-2024 strategic planning process at the May Strategic Planning Retreat.

Mike Colgrove noted that this is the first three of 11 total board learning topics. There will be five at the April board meeting and the last three at the May retreat. Authors were instructed to present information in a way that people with little pre-existing technical knowledge could understand content. Mike added that the papers will eventually be posted for the public on Energy Trust's website. These papers are educational only, and are not policy proposals.

Distribution Systems and Energy Efficiency, Amanda Potter and Thad Roth

Amanda Potter, industrial sector lead, and Thad Roth, residential sector lead, discussed how energy efficiency and renewable can be used to solve distribution system constraints. Expansion of distribution grids creates challenges and opportunities. Utilities must update grids and processes to manage this complexity. Distributed energy solutions like energy efficiency, renewable energy and batteries can be used to solve distribution constraints and forestall grid upgrades. Demand response is the most common solution and involved reducing load during peak times.

Utilities are also working to figure out how to value the benefits of distributed resources. Utilities need more experience with these programs to feel confident in their ability to manage constraints.

Thad shared examples of existing distributed energy solutions in Oregon and the U.S. Examples include New York's Reforming the Energy Vision project in 2015 and New York's Brooklyn-Queens project in 2014 to delay building a \$1 billion substation for two years. In California, the California Public Utility Commission's Distribution Resource Plan from 2014 includes accommodating distributed energy resources, assigning locational value, forecasting distributed energy resources growth and initiating pilot projects. Bonneville Power Administration has an I-5 Corridor Reinforcement Project to address a transmission constraint through demand response with a large industrial customer. In Oregon, SB 978 from 2017 explores changes to the existing regularly system and incentives to accommodate distributed energy resources. In 2017, OPUC directed utilities to begin distribution system planning to allow for the evaluation of the most beneficial placement and efficient use of new distributed energy resources.

Energy Trust has several pilots under way with utilities, including with Pacific Power and NW Natural, to use energy efficiency to reduce demand on specific substations. Energy Trust is deploying increased marketing and outreach of existing energy efficiency offerings in these locations. Pacific Power has also released a request for proposals for locational demand response.

To advance distributed energy resources, utilities need to believe distributed energy resources solutions are reliable, understand their value to the grid, have appropriate planning tools, make grid modernization investments and implement policies and incentives to promote use of distributed energy resources.

Potential roles and next steps for Energy Trust could include continued engagement with utilities, continued pilot collaborations with utilities, consideration of the role of solar + storage, learning more and tracking process in Oregon.

The board asked about the value of smart meters. Smart meters are part of smart grids and grid modernization. These meters help utilities understand customer energy use. Smart meters give more granular information about energy consumption and timing, and more visibility into what is happening on the grid.

The board noted these studies could provide value for community solar programs.

The board asked about the large amount of electricity savings from the Bonneville Power Administration pilot. Savings are from a single large industrial customer that reduces energy use during peak periods, which are just 10 days in the summer. They are compensated for their participation.

The board noted that PGE has dispatchable distributed generation agreements with backup generators in Portland and a sophisticated control and response system.

EVs and Transportation, Spencer Moersfelder, Jay Ward and Jeff Allen

Jay Ward, Energy Trust senior community relations manager, and Jeff Allen, executive director of Forth, presented on electric vehicles and transportation. Forth is a nonprofit trade association and advocate for electric vehicles, formerly known as Drive Oregon. Transportation uses a lot of energy. Gas cars are inefficient and electric vehicles use 70-80 percent less energy per mile. The average car capacity factor is less than 2 percent because a car is used a fraction of the time and driven by an average of 1.1 people at a time. Transportation electrification policy and utility policy have historically been siloed but are converging. Electric vehicles can provide significant grid benefits because they typically charge during off-peak hours.

Jeff summarized current trends in electric vehicles. Electric vehicles are now about 2 percent of new cars sold, and there are currently 16,000 in Oregon. Electric vehicles could reach 10-15 percent of the market by 2025. Oregon passed legislation to provide rebates for electric vehicles, and this is expected to drive sales. The entire transportation infrastructure is undergoing disruption and transformation. With vehicles that are autonomous, connected, electric and shared, fewer cars can meet the demands of more people. The cost of mobility may drop by an order of magnitude.

Jeff presented six key opportunities to advance electric vehicles and transportation. First, electric vehicles could fit into existing energy efficiency and renewable energy programs. Currently these efforts are not coordinated. There are opportunities to coordinate marketing, leverage cost savings upsizing and cross selling, and reducing solar net metering costs. Opportunities include smarter charging, consumer and dealer engagement, electrifying heavy-duty vehicles like trucks and buses, and fostering equity for lower-income customers.

Jeff explained fuel cell electric vehicles, which are not currently available in Oregon but are in California. There are also opportunities to utilize natural gas to power vehicles in Oregon. There are currently natural gas powered vehicles on Oregon's roads, typically in fleet use.

The board asked if auto manufacturers in China and Europe are increasing electric car production. Jeff confirmed that this is correct, and added that China requires a certain percentage of zero-emission vehicles to be sold.

The board asked what benefit a customer receives if their electric vehicle functions as a battery for their utility. Jeff gave an example of heavy-duty vehicles. In California, a pilot with school buses is trying to demonstrate there is enough extra value to offset the incremental cost of purchasing an electric vehicle instead of a gas-fueled bus. Jay added that there could be other benefits that provide value and cited mining operations in Canada that were converting to EVs to reduce the cost of ventilating mining operation sites.

Monetizing Non-Energy Benefits, Mike Colgrove and Sue Hall

Mike introduced Sue Hall, CEO of the Climate Neutral Business Network. Mike also recognized Energy Trust renewable energy senior program manager Jed Jorgenson for providing irrigation modernization case studies. The paper talks about three specific non-energy benefits: water, public health benefits and carbon. In this presentation, Sue will focus on the carbon markets.

Sue explained how and why people assign value to carbon emissions, and what the emerging trends are in these markets. In the last 20 years, financial markets have matured that place monetary value on reduction of greenhouse gas emissions. This is due to regulations requiring businesses to reduce

emissions, called compliance markets. There are also voluntary carbon markets. Energy Trust is already delivering significant carbon reductions. Voluntary carbon markets are driven by large companies with greenhouse gas, sustainability or business goals. Within this market, energy efficiency-based carbon credits are a small and emerging part.

Sue explained how carbon credits are capitalized, including third-party verification.

Sue explained the central pillars of carbon credit market integrity. For example, carbon cannot be counted twice. Sue explained what carbon compliance markets look like, such as in a state with cap and trade. First, the state sets an emissions cap and goal. Then it determines the amount of carbon dioxide that it will allow major emitters to produce. Those allowances are then auctioned. Large emitters must purchase allowances each year to come into compliance.

The board asked who receives the money from a company buying carbon offsets. Sue described Chevrolet as an example. Chevrolet is the buyer of carbon credits. Universities came forward with outstanding efficiency performance and carbon credits to sell. Chevrolet paid the universities to purchase credits.

The board asked how that would work in Oregon with an Energy Trust customer that wants to certify their efficiency and sell credits. Sue explained that the purchaser's money is reinvested in the seller's energy efficiency investments. That is a voluntary market example, not cap and invest.

In a compliance market, utilities are given a certain amount of allowances in a year. The utilities are then required to send those allowances back to the state. The state auctions them off to all entities that must come into compliance. The utilities then receive money for allowances sold. Utilities can return that money to its customers or invest the money in energy efficiency programs. Mike said that is how it is done in New York through the Regional Greenhouse Gas Initiative. When allowances are sold, the money goes to the state of New York and is then allocated to New York State Energy Research and Development Authority to administer the funds through its energy efficiency programs. In an allowance model, the company has to purchase enough allowances to equal its emissions.

The board asked how accounting in Washington could work with Oregon's potential cap and trade program. Washington is the only state that has set aside a reserve to avoid double counting across sectors. Washington has a broader set of clean technology investments that are part of the set aside reserve.

Roger noted that more time should be scheduled in the future for learning topic presentations.

Committee Reports

Compensation Committee, Dan Enloe

Energy Trust hired a new retirement plan management firm. The committee will meet with them to determine engagement policy.

Evaluation Committee, Alan Meyer

No updates.

Finance Committee, Susan Brodahl

No updates.

Policy Committee, Roger Hamilton

No updates.

Strategic Planning Committee, Mark Kendall

Mark reminded board members to mark their calendars for the May board strategic planning retreat.

Staff Reports

2018 Legislative Update, Jay Ward

Jay reminded the board that Energy Trust does not lobby or advocate policy. Staff have been watching 25 bills that could impact energy and four that could specifically impact Energy Trust.

2017 Preliminary Results, Highlights, Mike Colgrove

Mike will distribute Energy Trust's 2017 preliminary annual report. It was the highest year of electric savings and tied with last year for gas savings.

Secretary of State Audit, Mike Colgrove

The Secretary of State audit of Energy Trust is in process. Energy Trust will have time to review an initial report. The final report is expected to be complete and made public by end of March.

Adjourn

The board adjourned at 1:55 p.m.

The meeting adjourned at p.m. **The next meeting of the Energy Trust Board of Directors** will be on Wednesday, April 4, 2018 at 11:15 a.m. at Energy Trust, 421 SW Oak, Suite 300, Portland, Oregon.

/s/ Mark Kendall

Mark Kendall, Secretary