Energy Trust Board of Directors

December 13, 2019

421 SW Oak Street, Suite 300 Portland, OR 97204 1.866.368.7878 503.546.6862 fax energytrust.org

171st Board Meeting

Friday December 13, 2019
421 SW Oak Street, Suite 300, Portland, Oregon

	Agenda	Tab	Purpose
10:00 a.m.	**Board Meeting Call to Order** (Roger Hamilton) • **Approve agenda**		
	General Public Comment *The president may defer specific public comment to the appropriate agenda topic.*		
	Consent Agenda (Roger Hamilton) *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 of any member of the board.* • **October 16, 2019 Budget Workshop Minutes** • **October 28, 2019 Board Meeting Minutes** • **Diversity, Equity and Inclusion Policy 4.08.000-P R0885**	**1**	Action
10:15 a.m.	**President's Report** (Roger Hamilton, Mark Kendall)		
10:30 a.m.	**Executive Director Report** (Michael Colgrove)		
11:00 a.m.	**Final Proposed 2020 Annual Budget and 2020-2021 Action Plans R0886** (Michael Colgrove) 60 minutes	**Separate binder**	
	• Adopt 2020 Budget and 2020-2021 Action Plans **R0886**	**2**	Action
12:00 p.m.	**Lunch**		
12:45 p.m.	**Diversity, Equity & Inclusion Annual Operations Plan Report** (Debbie Menashe)		Info
1:15 p.m.	**Contracts for Approval** 55 minutes	**3**	
	• Approve Amendment and Extension of Contract with Recurve Analytics, Inc. **R0887** (Mark Wyman) 20 minutes		Action
	• Approve Five-Year Funding Commitment to the Regional Technical Forum (RTF) **R0888** (Fred Gordon) 15 minutes		Action
	• Approve Two Media Buying Contracts (Shelly Carlton) 20 minutes: o Contract with Coates Kokes, Inc. **R0889** o Contract with Digital Mark Group LLC **R0890**		Action

2:10 p.m.	**Energy Programs**			
	• Approval of Project Funding for a Production Efficiency Project Requiring Waiver of Project Incentive Funding Caps Mega Project **R0891** (Amanda Potter)	**4**	Action
2:25 p.m.	**Break**			
2:35 p.m.	**Board Governance Review Benchmarking Final Report** (Christine Chin Ryan, Victoria Lara, Jim Owens; Synergy Consulting)		Info
3:35 p.m.	**Committee Reports**			
	• Audit Committee (Anne Root)	**5**	Info
	• Compensation Committee (Mark Kendall)	**6**	Info
	• Evaluation Committee (Lindsey Hardy)	**7**	Info
	• Executive Director Review Committee (Roger Hamilton, Melissa Cribbins) **Executive Director 2019 Annual Review R0892**	**Distributed at meeting**	Action
	• Finance Committee	**8**	Info
	• Nomination Committee (Debbie Kitchin)		Info
	• Policy Committee (Alan Meyer)	**9**	Info
	• Conservation Advisory Council (Lindsey Hardy, Alan Meyer, Elee Jenn)	**Distributed at meeting**	Info
	• Renewable Energy Advisory Council (Henry Lorenzen, Ernesto Fonseca)	**10**	Info
	• Diversity Advisory Council (Ernesto Fonseca)	**Distributed at meeting**	Info
4:30 p.m.	**Adjourn**			

The next meeting of the Energy Trust Board of Directors will be held on Wednesday, February 25, 2020 at Energy Trust of Oregon, 421 SW Oak, Suite 300, Portland, OR 97204

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Tab 1

Draft 2020 Budget Public Workshop Notes

October 16, 2019

Attendees from Conservation Advisory Council:

Warren Cook, Oregon Department of Energy (phone)
Wendy Gerlitz, Northwest Energy Coalition
Kari Greer, Pacific Power (phone)
Julia Harper, Northwest Energy Efficiency Alliance
Anna Kim, Oregon Public Utility Commission
Jason Klotz, Portland General Electric
Monica Cowlishaw, Cascade Natural Gas (phone)
Lisa McGarity, Avista
Dave Moody, Bonneville Power Administration

Attendees from Diversity Advisory Council:

Oswaldo Bernal, OBL Media, LLC
Kaeti Namba, Native American Youth and Family Center

Attendees from Renewable Energy Advisory Council:

Erik Anderson, Pacific Power
Josh Halley, Portland General Electric
Andria Jacobs, City of Portland (also representing CAC)
Jed Jorgensen, Farmers Conservation Alliance
Suzanne Leta, SunPower
Rebecca Smith, Oregon Department of Energy
Frank Vignola, University of Oregon
Dick Wanderscheid, Bonneville Environmental Foundation

Attending from Energy Trust:

Kathleen Belkhayat
Melanie Bissonnette
Allison Briden
Shelly Carlton
Sarah Castor
Amber Cole
Mike Colgrove
Ryan Crews
Hannah Cruz
Ivy Draughon
Cheryle Easton
Becky Engel
Emily Findley
Sue Fletcher
Fred Gordon
Jessica Iplikci
Betsy Kauffman
Oliver Kesting
Jessica Kramer
Steve Lacey
Debbie Menashe
Dave McClelland
Dave Moldal
Denise Olsen
Amanda Potter
Thad Roth
Lizzie Rubado
Amanda Sales
Eric Sayre
Peter Schaffer
Thaddeus Steerman
Greg Stokes
Julianne Thacher
Jay Ward
Kate Wellington
Peter West
Amanda Zuniga

Others attending:

Pat Daniels, Constructing Hope
Rachel Dawson, Cascade Policy Institute
Joe Marcotte, Lockheed Martin Energy

1. Welcome and introduction

Amber Cole convened the workshop at 9:07 a.m. The draft budget materials are available on Energy Trust's website at https://www.energytrust.org/event/energy-trust-budget-workshop/. The meeting was recorded on GoToMeeting. If you'd like to refer to the recorded meeting for further details on any of these topics, email info@energytrust.org.

Amber introduced the agenda and reviewed housekeeping items.

2. Draft 2020 budget presentation

Mike Colgrove provided an overview of the draft 2020 budget.

Anna Kim requested clarification around the transition from net to gross savings. Mike referred attendees to the memo Energy Trust has created on this topic.

Mike described Energy Trust's investment of $202.5 million of utility customer funds to achieve annual energy savings and renewable generation goals. Savings acquired by Energy Trust are the least expensive energy available to utilities. Gas savings are projected to be flat and electric savings are expected to decline by 20% in 2020, compared to the 2019 budget.

Energy Trust will distribute $111.7 million in incentives in 2020, which represent 55% of total expenses. Administrative costs will be 7.8%. By meeting 2020 goals, Energy Trust will save customers $593 million in future energy bills. Diverse and rural communities will also have greater ability to participate in Energy Trust programs.

Mike described Energy Trust's process for developing the budget, which is guided by Energy Trust's 2020-2024 Strategic Plan, utility integrated resource plans, internal business planning prioritization, input from advisory councils and consideration of expected market conditions. These market conditions are referenced in the October budget packet for more information.

Attendees asked how the 2020 market conditions compare to the previous downturn in 2008-2009 (Lisa McGarity). Mike said we are not near levels from 2008-2009. While market growth rates are slowing, the actual amount of growth opportunity is stable. There are more business opportunities in the market, but there is a shortage of skilled labor to complete the work. Attendees asked whether the 20% decline in electric savings is related to market conditions or previous work (Suzanne Leta). It is due to a variety of factors that Mike will explain later in the presentation.

Mike explained the five proposed goals for 2020 and their connection to the draft 2020-2024 Strategic Plan, and reviewed proposed budget expenditures by program and fuel source, including NEEA projections.

Attendees asked questions about the budget items related to community solar, and funding for renewable gas programs (Suzanne Leta).

Attendees asked if projected declines are because of the decline in savings potential market-wide or if projection declines are due to our inability to claim certain savings because of cost-effectiveness (Wendy Gerlitz). Mike explained that it's our ability to claim certain savings; products in the market are still efficient.

Attendees suggested adding more detail about the connection between energy efficiency and renewable energy to the budget, and asked about the absence of electric vehicle load or storage (Suzanne Leta). Mike acknowledged there are new program efforts that cross both renewable and residential sectors, and directed attendees to those program action plan stations to learn more.

Mike invited attendees to contribute comments during the public comment period, which is open until October 30. A recorded presentation is also available on Energy Trust's website for more information.

3. Draft 2020-2021 Action Plan Stations

Amber introduced the format for the action plan stations, where attendees had the opportunity to talk directly with staff about their proposed activities in 2020. Details about individual program and support group action plans are in the budget packet online.

The group dispersed at 10:12 a.m. to participate in the nine action plan stations. The group reconvened at 11:18 a.m.

4. Reconvene and discussion

Amber introduced the format for collecting input on learnings from the workshop. She invited attendees to provide input on anything that doesn't make sense, what gaps they see, what further information is needed to comment on the budget, additional trends attendees see, other higher priorities than those identified by Energy Trust, and what impact attendees see for this budget. Mike also invited input on the format and structure of the workshop.

Before discussion, Peter West explained levelized cost, since that is a key part of this year's budget.

By a show of hands, Amber invited attendees to rate this year's budget on a scale from one to ten, with one meaning they do not support the budget and ten meaning they highly support it. Attendees indicated a level of 7.5 or greater.

Amber then invited comments on what was missing and other impressions. Feedback included:

- Lisa McGarity suggested it would be helpful to have more detail in utilities' Integrated Resource Plans (IRPs) to inform goals, such as diversity, equity and inclusion, and how that ties to the IRPs. Amber said this could be explored for future years' budgeting processes.
- Frank Vignola commented that Energy Trust is trying to do a lot and wondered if it is too much.
- Suzanne Leta noted that there is still a gap in average megawatt data and budget impact on integrating renewable energy and energy efficiency.
- Wendy Gerlitz raised a concern about the calculation of baselines and whether improving efficiency baselines of equipment may leave out certain segments of the population. Wendy suggested Energy Trust identify the regulatory or policy barriers that affect how baselines are calculated.
- Suzanne Leta asked what more Energy Trust could be doing if it had more money, and suggested that there is more demand for solar than Energy Trust can address with current funding. She suggested the same for energy efficiency if the OPUC were to revisit cost effectiveness.
- Anna Kim was pleased by opportunities Energy Trust has identified to streamline processes for customers, freeing up staff for other work. She suggested that Energy Trust continue conversations about how to be more efficient so we can do more work.
- Frank Vignola said that the evaluations improvements are a positive aspect of the 2020 budget.
- Lisa McGarity suggested that Energy Trust ask employees how they are reimagining their future work for Energy Trust in light of the 2020-2024 Strategic Plan.
- Julia Harper recommended more clarity on how market trends are impacting Energy Trust.

- Pat Daniels sees similar trends around supply and demand for construction workers. Constructing Hope is having a difficult time finding instructors, and there is a huge demand for workers. Constructing Hope wants to offer more training to rural areas.

Attendees voiced confusion around Energy Trust's Goal 2 ("Use guidelines to determine resource investments in community efforts"). Areas of confusion included lack of clarity across all programs about how they plan to engage communities (Kaeti Namba); that the goal was about targeted load management and testbeds (Anna Kim); and that it was about building community into our process (Pat Daniels).

Feedback on Goal 2 included suggestions that Energy Trust should invite communities to the table to help Energy Trust develop community engagement guidelines (Kaeti Namba). Kaeti explained that they can provide input about how to be effective at engaging communities and help avoid roadblocks. She suggested that Energy Trust invest more time and thinking about how we involve communities in developing future guidelines.

Anna Kim supported the idea of having more transparency around how to determine community engagement. Kari Greer mentioned that Pacific Power has a lot of communities interested in energy planning. Each community has a different profile and need. Kari would like to work with Energy Trust to provide a more uniform flow of information to communities.

Mike summarized that Energy Trust will create greater clarity around the scope of Goal 2 in future iterations.

Anna Kim appreciated the action plan handout.

5. Next steps

Energy Trust invites public comment by October 30 via info@energytrust.org, or via any staff member with whom attendees work. Revisions to the draft budget will be made in November after comments are collected. The final proposed budget will be available online on December 5, and will be presented to the board on December 13.

6. Workshop adjournment

The workshop adjourned at 11:57 a.m.

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Board Meeting Minutes—169th Meeting

October 28, 2019

Executive Session

The Energy Trust Board of Directors met in Executive Session prior to the public meeting and pursuant to bylaws section 3.19.1 to discuss internal personnel matters.

Attendance at the Public Meeting

Board members present: Susan Brodahl, Melissa Cribbins, Ernesto Fonseca, Roger Hamilton, Lindsey Hardy, Eric Hayes, Elee Jen, Mark Kendall, Debbie Kitchin, Henry Lorenzen, Alan Meyer, Anne Root, Roland Risser, Letha Tawney (Oregon Public Utility Commission ex officio), Ruchi Sadhir (for Janine Benner, Oregon Department of Energy special advisor)

Board members absent: None

Staff attending: Melanie Bissonnette, Wendy Bredemeyer, Amber Cole, Michael Colgrove, Cheryle Easton, Becky Engel, Andy Griguhn, Steve Lacey, Betsy Kauffman, Debbie Menashe, Pati Presnail, Julianne Thacher, John Volkman, Jay Ward

Others attending: None

Business Meeting

Roger Hamilton called the meeting to order at 2:28 p.m. Reminder that consent agenda items can be changed to regular agenda items at any time.

Roger apologized for a recent incident at a policy committee meeting. The chair of the policy committee has agreed to resign his chairmanship by the end of the year. The board has taken measures to ensure this never happens again and has decided to create a code of conduct. The board recognizes that diversity, equity and inclusion is an area of growth.

The board welcomed new OPUC ex officio board member, Letha Tawney, who replaces Steve Bloom. Letha thanked the board for the opportunity to serve and emphasized that Energy Trust needs to engage all ratepayers to achieve all cost-effective energy efficiency.

General Public Comments

There were no public comments.

Resolution 881
Consent Agenda October 2019

October 28, 2019

RESOLUTION 881

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

- July 24, 2019 Board Meeting Minutes
- September 16, 2019 Strategic Plan Workshop Minutes

Motion by: Mark Kendall		Seconded by: Debbie Kitchin
Vote:	In favor: 13	Abstained: 0
	Opposed: 0	

Draft 2020 Budget and 2020-2021 Action Plan (Michael Colgrove)

Mike Colgrove, executive director, summarized Energy Trust's draft 2020 budget and described changes from stakeholder feedback. In 2020, Energy Trust will invest $20.5 million of utility customer funds to save 45.6 average megawatts of electricity, save 6.8 million therms of gas and generate 3.36 aMW of renewable energy. Energy savings remain the least expensive energy resource for utility customers. Energy Trust will distribute $111.7 million in incentives or 55% of total expenditures. Administrative costs remain low at 7.8%.

The board asked how cost per unit of energy generated compares to cost per unit of energy saved and requested this information be included in the budget.

Mike described the benefits that will accrue from 2020 investments and the market context that informed the budget. The budget was also informed by the 2020-2024 Strategic Plan focus areas, energy efficiency and renewable energy resource planning, and business planning and prioritization. Market context includes expected slowing of Oregon's economic growth, construction labor shortages and increasing materials costs.

The board discussed the impact of tariffs on LED costs, which is a factor in Energy Trust increasing incentives for commercial LEDs in 2019.

Mike described shifts in savings and costs as programs mature. Savings opportunities are shifting to smaller commercial and industrial projects. There are fewer projects in the pipeline for 2020 and programs are increasing incentives to improve payback periods.

External programs and policies present new opportunities, such as the Oregon Community Solar Program, Portland Clean Energy Fund, utility-led peak load management programs, and local community resiliency and sustainability planning.

The board discussed how these influencing factors impact projections of achievable energy efficiency.

Ernesto Fonseca left the meeting at 3:02 p.m.

Mike described Energy Trust's five annual goals for 2020 and the business planning process.

The board noted many new initiatives in 2020, and asked if any existing initiatives were discontinued. Mike clarified that the bulk of staff hours are dedicated to continuing initiatives.

The board asked how Energy Trust handles new activities when 99% of staff hours are allocated to planned activities. Mike explained that Energy Trust will prioritize new opportunities against existing initiatives. If new opportunities are a priority, staff will deprioritize other initiatives.

Mike described revenue projections, which are negotiated annually with utilities, and 2020 expenditures. The 2020 budget uses reserves to cover planned expenses in excess of anticipated revenue. Staffing and internal costs will go up slightly due to rising healthcare costs, staff compensation, a new full-time diversity lead staff position, a new half-time project manager and new staff to support the Oregon Community Solar Program. 2020 staffing costs are compliant with the OPUC performance measure. Internal costs will also increase to support implementation of new budget tools software and support for new Diversity Advisory Council.

The board asked if program staff costs are considered program delivery costs or staffing costs. Pati Presnail confirmed that all Energy Trust employees, including program staff, are included in staffing costs.

The board requested that expenditures and savings projections be added to the diversity, equity and inclusion action plan. Debbie Menashe, director of legal and HR, explained that many diversity, equity and inclusion costs are embedded in program budgets. Mike agreed to add this detail to the diversity, equity and inclusion action plan.

Mike described 2020 renewable generation, which is expected to increase nearly 50% over 2019. The Solar program is adjusting to changing policies and launching project development assistance incentives to support small projects that plan to participate in the Oregon Community Solar Program. Other Renewables will continue to focus on biogas projects and irrigation modernization.

In 2020, Energy Trust will support delivery of the Oregon Community Solar Program through a subcontract with Energy Solutions. This work is funded by new revenue that is separate from utility customer public purpose funding.

The board asked about the source of new Oregon Community Solar Program revenue, which is from ratepayers during the startup phase and will be from developers and subscribers after the startup period is complete.

Mike summarized gas savings for 2020, which are down 2% compared to 2019 gas savings.

The board discussed avoided cost increases.

Mike continued that electric savings for 2020 will be down 21% compared to 2019 electric savings.

The board discussed the tension between incentive levels and savings pipelines. If Energy Trust plans for higher levelized costs, it would enable the organization to achieve more savings. Letha Tawney explained that savings per project are declining because baselines moved up, not because less energy is being saved. Energy Trust has successfully bought down prices and advanced market transformation, which reduces the amount of savings Energy Trust can claim.

Mike described Energy Trust's success transforming the lighting market. LEDs are expected to remain cost-effective in some markets in 2020.

Mike described 2020 Northwest Energy Efficiency Alliance (NEEA) savings, which have historically been Energy Trust's biggest source of very low-cost savings. The volume of NEEA savings will decrease by 40% in 2020 because a residential battery charger standard is moving to a baseline practice. Levelized costs for NEEA are also going up slightly but are still very low cost.

The board asked for more information about the expected drop in NEEA savings, and Mike explained how NEEA's five-year business planning cycle impacts the volume of NEEA savings.

Mike reviewed levelized cost trends. Savings are slightly more expensive but remain much cheaper than what utilities would otherwise pay. The board clarified that levelized costs are projected out over the life of the resource.

Mike explained that Energy Trust works with utilities to balance rate impacts and to avoid any large rate increase in any given year. The board discussed how utility Integrated Resource Plans (IRP) impact expected savings and costs. Mike explained that IRPs inform all annual budgets. The board noted that energy efficiency is less expensive than energy utilities would otherwise buy from other sources.

Mike highlighted the organization's focus in 2020 on acquiring new sources of energy savings while managing costs. The 2020 budget includes more than 30 new measures, more than 30 new pilots and delivery approaches, and 25 system and process improvement initiatives.

The board appreciated the list of new efforts and requested a list of efforts that are discontinued. It's good to show that Energy Trust constantly re-evaluates activities to ensure they're the best value investments. Mike will bring the list of discontinued initiatives to the December board meeting.

The board expressed interest in continuing the discussion about achieving higher-cost, yet still cost-effective, energy savings. There are significant long-term bill savings benefits from investing in more energy efficiency in the near term. Mike shared that Energy Trust's new budget tool will help staff explore some of these scenarios.

2019 Management Review Report (Holly Valkama, 1961 Consulting)

Mike introduced Holly Valkama from 1961 Consulting to present the 2019 Management Review for approval. Energy Trust is required to conduct an independent management review every five years per its grant agreement with the OPUC. This year, Energy Trust suggested the management review focus on cost allocation, time tracking and innovation. Holly described highlights and recommendations for each focus area.

For cost allocation and billing, Holly was asked to assess if each process was appropriate and fair, specifically allocation for non-public purpose charge (PPC) funds, such as for the Oregon Community Solar Program and delivery of services to NW Natural customers in Southwest Washington. Holly concluded that current cost allocation methods fairly and appropriately distribute shared costs between PPC and non-PPC funding sources. In addition, Holly noted that large cross-organizational initiatives draw a lot of organizational resources, but they are allocated only to specific programs. Recommendations are to track time spent on major cross-functional and cross-organizational initiatives to shared cost centers rather than program cost centers, and to customize a program-specific shared cost markup percentage when pricing each non-PPC funded program.

For time tracking, Holly was asked to review practices for tracking time against programs and projects and recommend best practices and tools. Energy Trust's current time tracking is very high level. Recommendations include changing the time reporting cycle from every other week to weekly and reporting actual time worked for all employees rather than limiting time reported to 40 hours per week for salaried employees.

The board discussed the level of granularity that can be tracked in Energy Trust's payroll system. The system will support more detailed time tracking than is currently performed.

The board asked how many salaried employees are working more than 40 hours a week, if there is an issue with staff working overtime and if salaried employees receive comp time. Pati Presnail, director of finance, explained that Executive Team is aware that people must put in extra hours, and they hope that on balance the 40-hour workweek is a good standard. Debbie

Menashe added that salaried, exempt employees are not eligible to receive overtime pay. Most Energy Trust employees are salaried, but there are a few coordinator-level employees that are non-exempt. Managers and employees are empowered to take comp time, but it is not tracked in the payroll system.

Holly continued to describe recommendations for time tracking, which include requiring all contractors to record time in Energy Trust's payroll system and implementing a pilot to design and deploy project-based time tracking. The board noted that staff should not spend too much time tracking their hours.

Holly described recommendations for the last topic area: innovation. Holly was asked to review current practice and provide best practices on the proportion of efforts staff should spend on program innovation and design versus day-to-day delivery and program operations activities. Companies that have a healthy balance of innovation put 70 percent of resources into core activities and 30 percent of resources into program innovation. Energy Trust is close to this.

Recommendations are to be specific about problems the organization is trying to solve and where to focus innovation resources, allocate budget for adjacent and transformational innovation, adopt an innovation resourcing strategy and structures, and focus innovation efforts using existing PPC funding and collaboration with resource multipliers.

Ruchi Sadhir left the meeting at 4:29 p.m.

The board asked if staff had any concerns about the Management Review recommendations. Staff were not surprised by the findings. The recommendations suggest continuous improvement, not a major change in course.

Alan Meyer left the meeting at 4:33 p.m.

Resolution 883
Accept Management Review Report
October 28, 2019

RESOLUTION 883
ACCEPT MANAGEMENT REVIEW REPORT

WHEREAS:

1. **The grant agreement between the Oregon Public Utility Commission (OPUC) and Energy Trust requires Energy Trust to contract at least every five years for an independent review and evaluation of the efficiency and effectiveness of Energy Trust operations.**
2. **In May of 2019, the Energy Trust Board retained 1961 Consulting to conduct the review under the auspices of the Audit Committee.**
3. **1961 Consulting submitted the review in final form on October 1, 2019. The Audit Committee reviewed the recommendations and recommended that the board accept the review at its October meeting.**
4. **The Board expresses its appreciation to the Audit Committee, 1961 Consulting, the OPUC and Energy Trust staff for their efforts.**

It is therefore RESOLVED:

1. **That the Board of Directors of Energy Trust of Oregon, Inc. accepts the final 1961 Consulting management review and instructs the executive director to submit it to the Oregon Public Utility Commission.**

2. **The Board and Executive Director are fully committed to carefully examining the report and taking appropriate follow-up actions in response to its findings and recommendations.**

Moved by: Melissa Cribbins Seconded by: Eric Hayes

Vote: In favor: 11 Abstained: 0

Opposed: 0

Draft 2020 Budget and 2020-2021 Action Plan Continued (Michael Colgrove)

Anne Root left the meeting at 4:35 p.m.

Following up on the board's question about budget for diversity, equity and inclusion activities, Mike described the 2020 budget for staff and board diversity, equity and inclusion training; new diversity lead staff; diversity, equity and inclusion committee presentations and trainings; Diversity Advisory Council; and complying with OPUC diversity, equity and inclusion performance measures. These activities are budgeted at close to $590,000. Additional diversity, equity and inclusion investments are embedded in program delivery costs. Peter West, director of programs, estimates that roughly $4.75 million of program budgets are dedicated to identifiable diversity, equity and inclusion engagements, such as partnerships with Community Energy Project and Verde, to deliver offerings.

The board asked to see diversity, equity and inclusion funds included in annual diversity, equity and inclusion progress reports.

Letha Tawney recommended that Energy Trust staff be clear about how Energy Trust plans to achieve the goal of reaching all customers when presenting the budget to commissioners.

The board asked if public comments on the budget have been received yet. Amber Cole, director of communications and customer service, responded that public comments are still being received and will be sent to the board as soon as the public comment period closes.

Strategic Planning Committee: 2020-2024 Strategic Plan (Mark Kendall, Michael Colgrove, Debbie Menashe)

Mark Kendall commended board and staff for development of the 2020-2024 Strategic Plan, noting that the plan best positions Energy Trust to continue its successful and impactful work in a world of changing markets.

Debbie Menashe acknowledged the full board and the board strategic planning committee and noted that Energy Trust received more comments on the strategic plan than ever before due to increased outreach efforts.

The board observed that Energy Trust has been passive rather than proactive in describing its impacts in the context of climate change. Given the present national political climate, there's more interest in climate change. Energy Trust should be in tune with that and discuss its climate impact more.

Mike thanked Debbie Menashe and the board for a great strategic planning process and product. The next step is implementation. If the plan is approved today, staff will post the final plan online, communicate about it externally and develop performance indicator metrics. In spring, the board strategic planning committee will review plan metrics and a dashboard. In May 2020, staff will present these metrics and a final dashboard to the board. Mike requested that the board strategic planning committee maintain twice yearly meetings to make sure the plan stays in the forefront of the organization's work.

Board Decision R0882
Approving Energy Trust 2020-2024 Strategic Plan

October 28, 2019

Recommendation

Adopt and approve the proposed final Energy Trust 2020-2024 Strategic Plan.

RESOLUTION R882

APPROVING AND ADOPTING THE ENERGY TRUST STRATEGIC PLAN 2020-2024

WHEREAS:

5. **Energy Trust is required by its grant agreement with the Oregon Public Utility Commission to adopt and revise a strategic plan at least every five years. The current plan, which covers the period 2015-2019, expires at the end of 2019.**
6. **Beginning in May 2017, Energy Trust carried out an extensive review and engagement process to inform the development of a 2020-2024 strategic plan.**
7. **A draft plan was discussed at the May 2019 board strategic planning workshop and released for comment this summer.**
8. **A revised draft plan was discussed by the full board at a meeting on September 16, 2019, and the board determined to forward the revised draft plan for review as a final proposed plan at the board's meeting on October 28, 2019.**
9. **Staff and board members engaged the Oregon Public Utility Commission, Portland General Electric, Pacific Power, NW Natural, Cascade Natural Gas, members of our Conservation, Diversity and Renewable Advisory Councils, and many stakeholders through presentations and meetings throughout the state to invite and collect comments on the draft plan. The staff and board have carefully considered these comments.**

It is therefore RESOLVED that the board of directors of Energy Trust of Oregon, Inc., adopts and approves the Energy Trust Strategic Plan 2020-2024.

Moved by: Debbie Kitchin — Seconded by: Roland Risser

Vote: In favor: 9 — Abstained: 0

Opposed: 0

Adjourn

The meeting adjourned at 4:56 p.m.

The next regular meeting of the Energy Trust Board of Directors will be held on Friday, December 13, 2019 at 10:30 a.m. at Energy Trust of Oregon, Inc., 421 SW Oak Street, Suite 300, Portland, OR 97204

_____ ____/____/____

Signed: Mark Kendall, Secretary Date

PINK PAPER

Resolution 885

4.08.000-P Diversity, Equity and Inclusion Policy

December 13, 2019

Recommendation

Authorize the modest revisions to update to the Diversity, Equity and Inclusion as shown below.

RESOLUTION 885
DIVERSITY, EQUITY AND INCLUSION POLICY

WHEREAS:

1. **Energy Trust's board Policy Committee has reviewed proposed revisions to the Diversity, Equity and Inclusion Policy at its meeting on November 14, 2019, and recommends slight updating revisions to the policy language.**

It is therefore RESOLVED that the Energy Trust Diversity, Equity and Inclusion is revised as shown below.

Moved by: Seconded by:

Vote: In favor: Abstained:

Opposed:

Marked Version

4.08.000-P Diversity, Equity, and Inclusion Policy

History			
Source	Date	Action/Notes	Next Review Date
Board Decision	May 22, 2002	Approved (R104)	May 2005
Policy Committee	March 5, 2005	Postpone review	11/05
Board Decision	September 7, 2005	Revised (R352)	September 2008
Policy Committee	December 2, 2008	Replaced references to numerical electric and gas goals	September 2011
Board Decision	October 5, 2011	Revised (R595)	October 2014
Board Decision	October 1. 2014	Revised (R714)	October 2017
Board Decision	December 15, 2017	Revised (R828) Name updated from Equity Policy to Diversity, Equity and Inclusion Policy	October 2018
Board Decision	December 14, 2018	Revised (R862)	October 2019

Introduction

Energy Trust envisions clean, efficient, affordable energy for everyone.~~a high quality of life, a vibrant economy and a healthy environment and climate for generations to come, built with renewable energy, efficient energy use and conservation.~~ Energy Trust recognizes that to achieve this vision, all utility customers must benefit from our programs, ~~but~~ including~~certain~~ customers who ~~are~~ may be underserved by our programs such as communities of color, rural communities, and low income customers.

Energy Trust commits to enhancing diversity, equity and inclusion in our programs and in internal operations in order to work to serve all communities and reach critical Energy Trust goals. We will advance diversity, equity and inclusion in our programs and internal operations through meaningful collaboration with our utility funders, trade allies, program allies, and customers and with geographic and culturally specific communities, organizations and businesses.

Policy

- Energy Trust will make programs available to all eligible electricity and gas customer classes by implementing programs in the residential, commercial, and industrial sectors.

- Energy Trust will monitor participation rates for all programs and adjust them as needed to ensure that all investor-owned utility electricity and gas customer classes in Energy Trust territory are being served.

- In addition to providing programs to reach all customer groups, Energy Trust will design and implement program strategies specifically to reach customers who have been underserved by Energy Trust programs, including rural customers, communities of color, and low-income communities in Energy Trust service territory.

- Energy Trust will use a diversity, equity and inclusion lens through which to:
    a. strategize and plan for Energy Trust program delivery
    b. deliver programs and services
    c. partner and collaborate
    d. allocate resources
    e. communicate and market
    f. build our workforce
    g. evaluate our work

- Energy Trust will maintain a diversity, equity and inclusion operations plan that:
    - includes goals, objectives and activities
    - assesses and measures progress
    - learns from mistakes and successes
    - shares progress publicly on no less than an annual basis

- Energy Trust has established and will maintain a Diversity Advisory Council to provide advice and resources to the board of directors to support Energy Trust's diversity, equity and inclusion operations plan and to advise the board of directors on assessing and measuring progress toward goals of such plan.

- Energy Trust will enhance diversity, equity and inclusion on the board of directors. In order to enhance diversity, equity and inclusion among board members, the nominating committee of the board of directors shall ~~appoint an ad hoc committee to~~ identify diversity, equity and inclusion goals and objectives, ~~for achieving this objective~~ such goals and objectives to be submitted to the board of directors for approval.~~.~~

For the first three years after adoption of these 2017 changes, the Energy Trust Policy Committee will review this policy annually to take account of new information and experience

Clean Version
4.08.000-P Diversity, Equity, and Inclusion Policy

History			
Source	Date	Action/Notes	Next Review Date
Board Decision	May 22, 2002	Approved (R104)	May 2005
Policy Committee	March 5, 2005	Postpone review	11/05
Board Decision	September 7, 2005	Revised (R352)	September 2008
Policy Committee	December 2, 2008	Replaced references to numerical electric and gas goals	September 2011
Board Decision	October 5, 2011	Revised (R595)	October 2014
Board Decision	October 1. 2014	Revised (R714)	October 2017
Board Decision	December 15, 2017	Revised (R828) Name updated from Equity Policy to Diversity, Equity and Inclusion Policy	October 2018
Board Decision	December 14, 2018	Revised (R862)	October 2019

Introduction

Energy Trust envisions clean, efficient, affordable energy for everyone. Energy Trust recognizes that to achieve this vision, all utility customers must benefit from our programs, including customers who may be underserved by our programs such as communities of color, rural communities, and low-income customers.

Energy Trust commits to enhancing diversity, equity and inclusion in our programs and in internal operations in order to work to serve all communities and reach critical Energy Trust goals. We will advance diversity, equity and inclusion in our programs and internal operations through meaningful collaboration with our utility funders, trade allies, program allies, and customers and with geographic and culturally specific communities, organizations and businesses.

Policy

- Energy Trust will make programs available to all eligible electricity and gas customer classes by implementing programs in the residential, commercial, and industrial sectors.

- Energy Trust will monitor participation rates for all programs and adjust them as needed to ensure that all investor-owned utility electricity and gas customer classes in Energy Trust territory are being served.

- In addition to providing programs to reach all customer groups, Energy Trust will design and implement program strategies specifically to reach customers who have been underserved

by Energy Trust programs, including rural customers, communities of color, and low-income communities in Energy Trust service territory.

- Energy Trust will use a diversity, equity and inclusion lens through which to:
    h. strategize and plan for Energy Trust program delivery
    i. deliver programs and services
    j. partner and collaborate
    k. allocate resources
    l. communicate and market
    m. build our workforce
    n. evaluate our work

- Energy Trust will maintain a diversity, equity and inclusion operations plan that:
    - includes goals, objectives and activities
    - assesses and measures progress
    - learns from mistakes and successes
    - shares progress publicly on no less than an annual basis

- Energy Trust has established and will maintain a Diversity Advisory Council to provide advice and resources to the board of directors to support Energy Trust's diversity, equity and inclusion operations plan and to advise the board of directors on assessing and measuring progress toward goals of such plan.

- Energy Trust will enhance diversity, equity and inclusion on the board of directors. In order to enhance diversity, equity and inclusion on the board of directors, the Nominating Committee of the board of directors shall identify diversity, equity and inclusion goals and objectives, such goals and objectives to be submitted to the board of directors for approval.

For the first three years after adoption of these 2017 changes, the Energy Trust Policy Committee will review this policy annually to take account of new information and experience

Tab 2

Board Decision
Adopt 2020 Budget, 2021 Projection and 2020-2021 Action Plan

December 13, 2019

Summary

To adopt the Energy Trust 2020 Annual Budget, 2021 Annual Budget Projection, and 2020-2021 Action Plan.

Background

- The Energy Trust grant agreement with the Oregon Public Utility Commission requires Energy Trust to update its two-year Action Plan annually and describe the activities the organization will undertake to accomplish over the coming two years.
- This update occurs each year in connection with the preparation and finalization of the following year's budget.
- The 2020-2021 Action Plan outlines activities Energy Trust will undertake in 2020 and 2021 to achieve its strategic and annual goals.
- This 2020 Annual Budget and 2020-2021 Action Plan reflects revenues, expenditures and activities for all funding sources.

Discussion

- The Draft 2020 Annual Budget and 2021 Projections (the draft budget) and the Draft 2020-2021 Action Plan (the action plan) were presented to and discussed by stakeholders at the public budget workshop held October 16, 2019 and by the board at their board meeting on October 28, 2019.
- The draft budget and action plan and recorded webinar were posted on the Energy Trust website on October 9, 2019.
- The Finance Committee reviewed the draft budget and the action plan on October 7, 2019.
- The Conservation and Renewable Energy Advisory Councils were presented action plan highlights at their respective meetings in September. They, along with the Diversity Advisory Council, reviewed and discussed budget details at the public budget workshop in October. They received an update summarizing budget changes and stakeholder feedback at meetings on November 19 and 20, 2019.
- Oregon Public Utility Commission staff was briefed on the draft budget and action plan on October 4, 2019.
- OPUC commissioners hosted a public workshop on November 7, 2019 where the draft budget and action plan were presented and discussed.
- Portland General Electric, Pacific Power, NW Natural, Cascade Natural Gas and Avista were engaged by Energy Trust in budget concept development starting in August. Utility representatives reviewed and discussed draft budget and action plan information through subsequent individual coordination meetings and via Conservation and Renewable Energy Advisory Council presentations multiple times, beginning late September and continuing through early November.
- Public comments were due October 30, 2019 and were received from the Oregon Public Utility Commission, PGE, Pacific Power, NW Natural, Cascade Natural Gas and Avista.
- The board will hear public comment and discuss the final proposed budget and action plan at its meeting on December 13, 2019.

Recommendation

Staff recommends adoption of the Energy Trust 2020 Budget, 2021 Projection and 2020-2021 Action Plan.

RESOLUTION 0886
ADOPT 2020 BUDGET, 2021 PROJECTION AND 2020-2021 ACTION PLAN

BE IT RESOLVED that Energy Trust of Oregon, Inc. Board of Directors approves the Energy Trust 2020 Budget, 2021 Projection and 2020-2021 Action Plan as presented to the board at its meeting on December 13, 2019.

Moved by: Seconded by:

Vote: In favor: 0 Abstained: 0

Opposed: 0

Tab 3

Board Decision
Authorizing the Executive Director to approve a contract amendment authorizing expenditure of more than $500,000 for the services and technology of Recurve Analytics, Inc.

December 13, 2019

Summary

Approve an extension and amendments to a contract with Recurve Analytics, Inc. to authorize an expenditure of greater than $500,000.

Background

Recurve Analytics, Inc., formerly known as Open Energy Efficiency, Inc. ("Recurve") entered into an agreement with Energy Trust of Oregon, Inc. ("Energy Trust") for cloud-based services and access to Recurve's utility data analytics software platform (the "Recurve Platform").

Energy Trust and Recurve originally entered into an agreement related to the Recurve Platform in January 2018, following a competitive bid process. The original agreement with Recurve was amended and extended in January 2019. As amended, the agreement authorized expenditures of up to $400,000 for services and licensing fees related to the Recurve Platform.

Energy Trust staff send residential utility and project data to Recurve, which are then loaded into the Recurve Platform and analyzed. Energy Trust staff and authorized third parties, such as its program management contractors and certain authorized trade allies, can access the Recurve Platform to view its analytic and visualization outputs. The Recurve Platform is, therefore, used to inform Energy Trust program design and evaluation.

In particular, the Recurve Platform allows Energy Trust to conduct faster, cheaper, and more standardized residential impact evaluation work. It also provides savings results that drive incentive payments for Energy Trust's residential pay-for-performance program pilot. In addition, Recurve provides ongoing consulting support and advice to Energy Trust in the analysis of utility data, logistics of pay-for-performance programs, and use of the Recurve Platform.

Beginning in 2020, Energy Trust and Portland General Electric ("PGE") also expect to collaborate to use the Recurve Platform to conduct analysis of PGE's advanced metering infrastructure ("AMI") interval meter data to inform certain evaluation activities and program designs. Interval meter data captures sub-hourly meter readings, providing greater insight into energy usage patterns as compared with the monthly meter reading data used for billing that is presently shared with Energy Trust as part of our utility data sharing agreements. The use of the Recurve Platform would allow Energy Trust to make use of the PGE AMI data for analysis without obtaining direct access to the data. Any such collaboration would involve separate contracting for use and non-disclosure requirements among Energy Trust, Recurve and PGE.

In 2020, the continuing use of the Recurve Platform for residential impact evaluation and to support the pay-for-performance pilot will require additional funding of up to $245,000. Should the envisioned collaboration for AMI data among Energy Trust, Recurve and PGE be finalized, additional costs for use of the Recurve Platform for these purposes would be $55,000.

The two proposed contract amendments for these services would result in an agreement with Recurve that would authorize expenditures of up to $700,000: $400,000 already authorized for

the 2018-2019 contract period plus an additional $300,000 for the 2020 services described above.

Discussion

- Visualization and analytics of utility data are critical to Energy Trust's program evaluation, design, and administration capabilities. The Recurve Platform provides useful technology and services to support this type of visualization and analytics. Due to the automation that Recurve has built, the Recurve Platform can produce the requisite visualization and analytics on an ongoing basis more quickly and cheaply, using more standardized methods than the types of software solutions and consulting services Energy Trust has relied on in the past.
- Energy Trust and Recurve have worked together since 2018 to ensure that the Recurve Platform is accessible and useful for Energy Trust's work. Since 2018, the Recurve Platform has provided data analytics for Energy Trust's impact evaluations and for its pay-for performance pilot. To date, the contract has authorized expenditures of less than $500,000, the maximum amount for which the Executive Director is authorized to approve without board approval.
- In 2020, continued Recurve Platform use, analytics, visualization and support will require funding in excess of the $500,000 Executive Director cap. In addition to continuation of Recurve Platform use with respect to impact evaluations and the pay-for-performance pilot, Energy Trust may use the Recurve Platform to conduct analysis of PGE AMI data to support evaluation activities and program and measure design.
- The costs anticipated and budgeted for 2020 for use of the Recurve Platform are $300,000. Added to the amount already authorized under the Recurve agreement, the contract would authorize expenditures of up to $700,000.

Recommendation

Authorize the executive director to sign a contract amendment with Recurve Analytics, Inc. to extend the agreement through 2020 and authorize funding for up to $700,000 for services as outlined above.

RESOLUTION 887
APPROVING A CONTRACT AMENDMENT WITH RECURVE ANALYTICS, INC.

WHEREAS:

1. **Energy Trust has contracted with Recurve since 2018, pursuant to a competitive bid process conducted in 2017, for data analytics, visualization and consulting services to support its energy efficiency impact evaluations and program design, particularly its pay-for-performance pilot.**
2. **Energy Trust wishes to continue to contract with Recurve for these services and, potentially, additional services relating to use of AMI data, to inform its program impact evaluations and design by extending the term of the contract and authorizing additional funding.**
3. **For 2020 services, Energy Trust has budgeted and proposes an addition of $300,000 for Recurve services.**

It is therefore RESOLVED that the Board of Directors hereby authorizes the executive director to sign a contract amendment with Recurve Analytics, Inc. for up to $700,000.

Moved by:		Seconded by:
Vote:	In favor:	Abstained:
	Opposed:	

PINK PAPER

Board Decision
Approve Five-Year Funding Commitment for the Regional Technical Forum

December 13, 2019

Summary

Approve a five-year funding agreement for the Regional Technical Forum.

Background

- The Regional Technical Forum ("RTF") was created in 1996, when Congress directed the Northwest Power and Conservation Council ("Council") and the Bonneville Power Administration to establish a technical forum to develop "consistent standards and protocols for verification and evaluation of energy savings, in consultation with all interested parties." (Senate Report 104-120, 1996). The Council provides staff for the RTF and oversees its work.
- While the RTF reports to the Council, it is funded by and serves a regional constituency. In 2010, an RTF Review Committee was organized by the Northwest Energy Efficiency Taskforce (a regional effort to accelerate energy conservation). The committee was tasked with reviewing RTF governance and structure, the idea of multi-year work plans, and RTF transparency. This work led to a variety of changes in RTF operations.
- Energy Trust has participated in the RTF consistently, and derived significant benefit from RTF work on cost-effectiveness issues and energy efficiency research and evaluation. In late 2015, the board approved a five-year funding agreement with the RTF, committing a total of $1,825,400 from 2015 through 2019, coincident and consistent with the Council's five-year business plan.
- Energy Trust and the Council wish to enter into a new five-year funding agreement to fund a portion of the RTF's 2020-2024 budget, again coincident and consistent with the Council's five-year business plan.
- Contributions to RTF funding are voluntary and shared region-wide, with funding contributions based on the Northwest Energy Efficiency Alliance's ("NEEA's") funding allocation methodology.

Discussion

- The primary value of the RTF is that it provides Energy Trust with estimates of efficiency measure costs, savings, measure life and savings load shape in a way whereby the cost of analysis is pooled regionally, and an independent group vets the estimates. This does not meet all of Energy Trust's needs for this type of estimate, but covers a significant share at an economical price.

- RTF also provides a forum for sorting out how to address new challenges in analyzing the savings and value of efficiency measures. For example, RTF has taken regional leadership in developing methods to estimate how much a particular efficiency measure saves at different times of day and year. Through its work with the NW Power and Conservation Council, RTF is also helping develop methods to estimate the impact of climate on savings for measures which address heating and cooling.

- There is ongoing regional interest in developing benchmarks and consistent measurement protocols to allow utilities and others to compare methods and results and learn from each other's experience. Energy Trust staff continues to see significant value in the RTF's work in creating the common framework of savings estimates that makes this more feasible.
- The Council and RTF develop a multiyear business plan which includes an extensive list of work, driven largely by requests from utilities, Energy Trust, NEEA and state energy agencies. The plan includes such tasks as:
  - Development of new efficiency measures and protocols for verification and evaluation of energy savings, and review and update of existing measures and protocols
  - Continued standardization of the RTF's *Guidelines* document and research into measures that don't currently fit within the *Guidelines*
  - Continuing development and refinement of analytical tools to assess measure savings and development of new tools
  - Maintaining a process by which utilities, Energy Trust and others can demonstrate different costs, savings and cost-effectiveness findings for their territories
  - High-priority evaluations and research.
- 2020-2024 funding contributions are based on the Northwest Energy Efficiency funding allocation methodology. Analysis of gas efficiency measures and demand reduction measures[1] are included this cycle. Funding for each of these efforts is calculated separately. Energy Trust will pay a share of the funding for electric and gas efficiency measures. Energy Trust is not paying for analysis of demand reduction measures: PGE and Pacific Power are paying the share for Energy Trust's service territory, because they deliver demand reduction programs.

  Energy Trust's share of 2020-2024 funding contributions would be up to $405,800 in 2020, $415,900 in 2021, $426,300 in 2022, $436,900 in 2023 and $447,900 in 2024, for a total of up to $2,132,800. This compares to $1,825,400 in the prior five-year funding commitment period. The increase for the 2020-2024 funding period is the result of added services related to natural gas efficiency and to account for inflation.
- As proposed, Energy Trust's funding agreement would allow Energy Trust to reduce or terminate funding if the Grant Agreement with the OPUC is terminated or the RTF is "significantly failing to meet its business plan objectives."

Recommendation

Authorize the executive director to sign a five-year funding agreement with the Northwest Power and Conservation Council for up to $2,132,800 for the RTF and its 2020-2024 Business Plan, with termination provisions as outlined above.

RESOLUTION 888
APPROVING A FIVE-YEAR CONTRACT WITH THE NORTHWEST POWER AND CONSERVATION COUNCIL TO FUND THE REGIONAL TECHNICAL FORUM

[1] Demand reduction measures turn off or down equipment during utility peaks to reduce utility peak loads. The Oregon PUC has tasked Oregon's electric utilities with delivering this service. Energy Trust may pay for efficiency features on the same equipment in some cases (e.g., smart thermostats) but is not charged with demand reduction in its Oregon PUC and utility contracts.

WHEREAS:

1. **The Northwest Council and Conservation Council's Regional Technical Forum ("RTF") develops "consistent standards and protocols for verification and evaluation of energy savings, in consultation with all interested parties." The RTF is the Northwest's primary forum for developing benchmarks and measurement protocols to allow utilities and others to compare methods and results and learn from each other's experience in energy conservation**
2. **Energy Trust has participated in the RTF consistently over the years, and derived significant benefits from RTF work on cost-effectiveness issues, energy savings analysis, and energy efficiency research and evaluation. Energy Trust committed to funding RTF through its 2015-2019 Business Plan for an amount up to $1,825,400**
3. **Energy Trust wishes to continue to provide longer term funding to the RTF because it continues to derive significant value from RTF's regional work.**
4. **Proposed 2020-2024 funding contributions for RTF are based on the Northwest Energy Efficiency funding allocation methodology. Energy Trust's share of 2020-2024 funding contributions would be up to $405,800 in 2020, $415,900 in 2021, $426,300 in 2022, $436,900 in 2023 and $447,900 in 2019k, for a total of up to $2,132,800.**
5. **As proposed, Energy Trust's funding agreement would allow Energy Trust to reduce or terminate funding if the Grant Agreement with the OPUC is terminated or the RTF is "significantly failing to meet its business plan objectives."**

It is therefore RESOLVED that the Board of Directors hereby authorizes the executive director to sign a five-year funding agreement with the Northwest Council and Conservation Council for up to $2,132,800 for the RTF and its 2020-2024 Business Plan, with termination provisions as described above.

Moved by:		Seconded by:
Vote:	In favor:	Abstained:
	Opposed:	

PINK PAPER

Board Decision
Authorizing the Executive Director to approve a contract exceeding $500,000 for purchase of advertising with Coates Kokes

December 13, 2019

Summary

The proposed resolution authorizes the executive director to a sign a contract with Coates Kokes, Inc. a certified woman-owned business, to purchase advertising on behalf of Energy Trust in 2020. The amount of the combined advertising contracts that Coates Kokes will purchase on our behalf will exceed $500,000, the maximum amount authorized for signature by the executive director without board approval. The resolution authorizes the executive director to sign a contract for up to $1.1 million, consistent with the final proposed 2020 budget. This amount represents a small reduction in the media buying contract from 2019 for Coates Kokes in 2020, based on a shift away from traditional media and into more digital media.

In 2018, Coates Kokes was selected through an RFQ process by a committee of Energy Trust staff in marketing, programs and finance, to purchase traditional media on behalf of Energy Trust in 2019, based on the company's ability to reach deeper into Oregon communities, its local media knowledge, its reporting capabilities, and its cost compared to eleven other companies of its kind.

Background

Many participating customers first hear of Energy Trust via advertising. The 2018 Customer Insights survey revealed that 30% of participants learned about Energy Trust through advertising, as did 33% of non-participants. Advertising is primarily used to raise awareness of Energy Trust offerings and motivate customers to act. Energy Trust advertising reaches customers in all service territories.

Energy Trust's media buy covers general awareness as well as commercial, residential, industrial, agricultural and solar program awareness. Additional measure- and offer-specific advertising is purchased by program management contractors. Together, this advertising helps customers along the journey to program participation.

In recent years, Energy Trust's advertising budget has been between one and two percent of the annual budget, which is low in comparison to standard business practice. The budget allocated for advertising each year is determined through the annual budget process. The budget ranges between $300,000 and $500,000 each, for general awareness, business (covering commercial, industrial and agricultural), and residential advertising.

The mix of advertising purchased has changed over time to take advantage of new media channels and ensure we are reaching all customers, achieving goals and maintaining visibility in all parts of the service territory. For example, based on information from national studies of media use, Energy Trust has increased TV advertising for the general awareness campaign and increased digital advertising for all campaigns.

While increased digital advertising has allowed us to track more immediate ad response, our web analytics show that all traffic, including search and direct (where a web address is typed directly into the browser), increases during a campaign. As consumer behavior changes and more people shift to streaming TV and radio, our ability to track specific clicks to web pages may also change.

Contract Benefits and Approach

Contracting with Coates Kokes in 2019 resulted in:

- A decrease of close to 400 hours of internal work by Energy Trust staff, which was redirected to other 2019 business plan priorities, including other priority marketing activities and managing diversity, equity and inclusion initiative (DEI) efforts.
- Coates Kokes negotiation of "added-value" opportunities on behalf of Energy Trust, including interviews on local media stations, bonus impressions (ad was played more often) on radio stations and low-cost, no-cost tips read live on-air. To date in 2019, we received approximately $126,000 in media exposure value from these "added-value" opportunities at no additional cost to Energy Trust.

Each advertising purchase proposed by Coates Kokes was reviewed and approved by internal staff before any purchase was made. Coates Kokes purchased media at the start of each campaign, which often yielded better pricing. As part of their work with other clients, Coates Kokes has built strong relationships with very small radio and print publications in rural regions. These relationships will continue to help Energy Trust reach populations identified in our DEI initiative.

Discussion

- Staff proposes to contract with Coates Kokes again in 2020 to continue the media buying for purchase of TV, radio, print, outdoor and non-programmatic online media at a budget of up to $1.1 million, which would be comprised of up to $160,000 payable to Coates Kokes for advertising purchasing services and the remainder payable through Coates Kokes to advertising providers. The proposed contract amount in 2020 is consistent with the advertising budget amount proposed for approval through the 2020 budget process.
- This contract will allow Energy Trust to continue to leverage Coates Kokes' experience building rapport with local media and securing added-value such as local event sponsorship and additional media placement on behalf of its client base. Coates Kokes partners with and works closely with culturally-diverse creative and media firms to purchase advertising in diverse media outlets, such as Spanish and Russian radio.
- Coates Kokes will do this work for a cap of $160,000 for the year. This rate is in the middle range of the rates proposed by other media-buying companies during the 2018 RFP. Coates Kokes generally does not receive a commission from media companies, and if a commission is ever received, it will be passed through to Energy Trust in the form of added value.
- Coates Kokes will continue to purchase media in the appropriate markets and targeted to the audiences specified by Energy Trust staff and ensure that all advertisements are delivered to the appropriate media outlets. Expanded focus will be placed on reaching underserved customers in 2020, including communities of color, rural and low- and moderate-income customers. For this, Coates Kokes will

partner with media strategy firms and media outlets that are within those communities.

- Deliverables for this contract will include media market analysis, media placement plans, added-value that aligns with Energy Trust goals and PR strategy, media buy detail that includes an explanation of strategy, any channel exclusions and reasoning, affidavits of placement from media outlets, and post-analysis and follow-up including media bonus reports.

Recommendation

Authorize the executive director to sign a contract for up to $1.1 million, for media buying services and purchase of broadcast radio, TV, print, outdoor and non-programmatic online media in 2020.

RESOLUTION 889
AUTHORIZING A CONTRACT WITH COATES KOKES, INC. FOR ADVERTISING PURCHASES AND PURCHASING SERVICES

WHEREAS:

1. **Media buying at Energy Trust allows programs to advertise in print, radio, TV, outdoor and online, creating program awareness, and promoting services, programs, and products.**
2. **Advertising is the most common answer to how participating customers first hear of us, and there is a clear connection between advertising and customer awareness and engagement, leading to savings and generation.**
3. **Increased advertising reach, using a professional media buyer with constant media contact and significant media data, allows Energy Trust to expand customer participation by increasing the number of times people see our message.**
4. **Using a professional media buyer allows Energy Trust to take advantage of added-value that works in collaboration with PR goals and promotes Energy Trust across mediums.**

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

- **Sign a contract with Coates Kokes for advertising purchasing services with terms and conditions that include, but are not limited to, the following:**
    - **Authorizing payments of up to a total of $1.1 million for the purchase and reporting of broadcast radio, TV, print and non-programmatic online media on behalf of Energy Trust, which includes up to $160,000 of the total authorized contract amount payable to Coates Kokes for Energy Trust advertising purchasing services and payable to Coates Kokes under contract terms and conditions;**
    - **providing for a contract term to cover advertising and advertising purchasing services through 2020;**
    - **providing for monthly reporting on purchased media reach and copy; and**
    - **other terms and conditions to ensure Coates Kokes services and media purchases are designed and executed to further Energy Trust's advertising strategy.**

Moved by: Seconded by:

Vote: In favor: Abstained:

Opposed: [list name(s) and, if requested, reason for "no" vote]

PINK PAPER

Board Decision
Authorizing the Executive Director to execute a contract with Digital Mark Group LLC

December 13, 2019

Summary

The proposed resolution authorizes the executive director to a sign a contract with Digital Mark Group LLC (DMG) to purchase programmatic online media in 2020, including desktop and mobile, as well as streaming radio and video on behalf of Energy Trust. The amount of the contract is expected to exceed $500,000, the maximum amount authorized for signature by the executive director without board approval. The resolution authorizes the executive director to sign a contract for up to $600,000 and consistent with the final proposed 2020 budget.

Since 2015, Energy Trust has worked with DMG on the purchase of programmatic digital advertising, based on the company's ability to purchase digital impressions across multiple digital exchanges, allowing Energy Trust to reach people based on demographic and behavioral information. Contracting with DMG has resulted in an increase in click-through rates for digital advertising, from an average of 0.09% among a mix of media outlets, to 0.15% via programmatic exchange purchases using DMG's extensive targeting capabilities and personas developed by general and program marketing staff.

During the budget process, Energy Trust determines the estimated breakdown of media dollars between traditional and digital media based on past years' performance and market information. Due to a general market shift to streaming TV and radio use, we expect to direct more of the total budget for media buying to our digital media buyer in 2020 than in prior years.

Background

Many participating customers first hear of Energy Trust via advertising. The 2018 Customer Insights survey revealed that 30% of participants learned about Energy Trust through advertising, as did 33% of non-participants. Advertising is primarily used to raise awareness of Energy Trust offerings and motivate customers to act. Energy Trust advertising reaches customers in all service territories.

Energy Trust's media buy covers general awareness as well as commercial, residential, industrial, agricultural and solar program awareness. Additional measure- and offer-specific advertising is purchased by Program Management Contractors. Together, this advertising helps customers along the journey to program participation.

In recent years, Energy Trust's digital advertising budget has been between one and two percent of the annual budget, which is low in comparison to standard business practice. The budget allocated for advertising each year is determined through the annual budget process. The budget has historically ranged between $300,000 and $500,000 each, for general awareness, business (covers commercial, industrial and agricultural), and residential advertising.

The mix of advertising purchased has changed over time to take advantage of new media channels and ensure we are reaching all customers, achieving goals and maintaining visibility in all parts of the service territory. We continue to monitor the breakdown between traditional and digital media. For example, based on information from national studies of media use, Energy Trust increased traditional TV advertising for the general awareness campaign and increased digital advertising for all campaigns. Contracting directly with DMG for digital media advertising permits Energy Trust to flexibly deploy advertising resources as appropriate.

Contract Benefits and Approach

Using a programmatic agency that purchases digital impressions via exchanges allows Energy Trust to take advantage of the constantly expanding capabilities of data that is gathered from internet users based on their behavior and any forms they fill out or indications they make about their demography (i.e. income, age, location, home ownership), or interests (i.e. home and garden, lighting, home improvement, solar electricity, technology). DMG uses proprietary technology to execute the advertising strategy with precision, according to audiences that Energy Trust defines for each campaign. The volume of inventory DMG has access to achieves lower rates to reach our audience statewide.

Prior to the start of each campaign, Energy Trust provides DMG with a target audience(s), budget, creative assets, and a campaign measurement framework that includes information on digital tracking to measure performance. DMG proposes a cost per impression and final impression count (number of times the ad is shown), and confirms with Energy Trust staff to ensure that all information has been gathered and targeting strategies are correct. Each year, staff check in with DMG on blacklisting sites, which are the sites where Energy Trust advertisements should not be seen. These include sites with politically extreme, violent, or adult content.

Working with DMG over the past five years has saved thousands of dollars by the use of their bulk buying power, saved hours of budget negotiation with traditional media outlets that have digital platforms, allowed for more strategic targeting of audiences and reporting on impact, as well as an overall increase in the click-through rate. Continuing to work with DMG will allow staff to build upon DMG's knowledge of our audience that has developed over time.

Working directly with DMG to purchase programmatic advertising removes the middleman as Coates Kokes, our traditional media buyer, would also work with DMG on behalf of Energy Trust to purchase the programmatic buy. Energy Trust benefits from a direct relationship with DMG as this advertising channel continues to grow. Cost per impression is consistently lower than that of other mediums, and we are able to adjust the campaign as it proceeds. Using one source for this investment eliminates the need for coordination of placement for advertising vendors. There is only one other company in Oregon, which started in late 2018, that specializes in programmatic advertising. However, they are an unproven entity with limited capabilities. In 2020, Energy Trust staff will monitor the overall cost of digital advertising to ensure that the combined total of digital and traditional advertising is consistent with the 2020 budget. In addition, Energy Trust staff will assess the cost of digital advertising and services in 2020 to identify potential other providers through a competitive bid process.

Discussion

- Staff proposes to contract with DMG in 2020 to continue the programmatic digital media buying at a budget of up to $600,000. The proposed contract amount in 2020 is consistent with the advertising budget amount proposed for approval through the 2020 budget process.
- This contract will allow Energy Trust to continue to leverage DMG's access to big data and digital exchanges where digital impressions can be purchased.

- DMG will continue to purchase digital impressions in the appropriate markets and targeted to the audiences specified by Energy Trust staff and ensure that all creative connects to appropriate URLs and tracking codes. Particular focus will continue to be placed on reaching underserved customers in 2020, including communities of color, rural and low- and moderate-income customers.
- Deliverables for this contract will include cost per thousand impressions, media placement plans, media buy detail, and post-analysis and follow-up including click-through rates.

Recommendation

Authorize the executive director to sign a contract for up to $600,000, for purchase of programmatic online media in 2020, including desktop and mobile, as well as streaming radio and video.

RESOLUTION R890
AUTHORIZING A CONTRACT WITH DIGITAL MARK GROUP LLC FOR DIGITAL ADVERTISING PURCHASE

WHEREAS:

1. **Media buying at Energy Trust allows programs to advertise in print, radio, TV, outdoor and online, creating program awareness, and promoting services, programs, and products.**
2. **Advertising is the most common answer to how participating customers first hear of us, and there is a clear connection between advertising and customer awareness and engagement, leading to savings and generation.**
3. **Continuing to work with an established digital media-buying agency with digital systems for aggregating data and targeting potential participants in digital media, would allow Energy Trust to expand customer participation by increasing the number of times specific audiences see our message.**

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

- **Sign a contract with Digital Mark Group LLC (DMG) for advertising purchase with terms and conditions that include, but are not limited to, the following:**
    - **Authorizing payments of up to a total of $600,000 for the purchase and reporting of programmatic online media on behalf of Energy Trust, made on behalf of Energy Trust and payable to DMG under contract terms and conditions;**
    - **providing for a contract term to cover advertising purchase through 2020;**
    - **providing for post-campaign reporting on purchased media reach and click-through rate; and**
    - **other terms and conditions to ensure DMG purchases are designed and executed to further Energy Trust's advertising strategy.**

Moved by: Seconded by:

Vote: In favor: Abstained:

Opposed: [list name(s) and, if requested, reason for "no" vote]

Tab 4

Board Decision R0891
Waive Program Cap and Authorize an Incentive for an Intel Production Efficiency Project

December 13, 2019

Summary
Waive the Production Efficiency program cap and authorize incentives up to $1.95 million, to be paid over several years for comprehensive energy efficiency measures at a new Intel facility.

Background
- Since early 2010, the Production Efficiency program has been working with Intel to implement comprehensive energy saving measures for Intel's D1X facility. The D1X site has been the largest construction project in the Portland metro area.

- In 2011, the Board approved incentives up to $4 million associated with savings from the first phase of D1X construction, known as Mod 1. The Mod 1 megaproject was verified and completed in phases in 2012, 2013 and 2014. The project saved over 72 million kWh (8.2 aMW) at a levelized cost of less than $.005/kWh.

- In October 2014, the Board approved incentives up to $2.4M for savings from the second phase of D1X construction, known as Mod 2. The first two verifications were completed in 2017 and 2018 and the final verifications are expected to complete in 2019 and 2020. The project is expected to save approximately 92 million kWh (10.5 aMW) at a levelized cost of less than $.003/kWh.

- Intel is now pursuing a third phase of D1X construction, known as Mod 3. The facility will primarily consist of clean rooms and will be constructed to the west of Mod 2.

- Mod 3 is similar to Mod 1 and Mod 2 in terms of proposed equipment, size, systems and energy efficiency measures. However, an updated baseline has been used to calculate the energy savings which are estimated to be 57 million kWh (6.5 aMW) over three years starting in 2022 at a similar levelized cost to Mod 2 ($0.0032/kWh).

- Under board policy, program caps may be waived if:

    - the project suspends self-direction for at least three years (Oregon law allows large energy users to "self-direct" energy conservation or renewable energy investments at a site, and reduce its payments to the three-percent "public purpose" fund that supports Energy Trust);

    - there is available incentive budget; and

    - the project is expected to save energy at a lower cost per unit of energy saved than is usual for the program.

Discussion
- Energy-saving measures proposed for this project are extensive, and include minimizing air changes per hour in the clean room space and installing highly efficient secondary process systems including chilled water, condenser water, compressed air, lighting and vacuum pumps.

- The project was reviewed through standard processes for complex custom-track industrial projects:
    - Energy Trust engaged Cascade Energy, the program delivery contractor for this territory with significant experience in high tech manufacturing efficiency, to perform a technical energy analysis scoping study.
    - The scoping study identified a baseline (typical energy use in a plant of this kind), energy savings measures and incremental costs to exceed the baseline. The proposed incentive is based on the scoping study's energy savings estimates.
    - Energy Trust also engaged INCA Energy Efficiency Consultants who reviewed and confirmed the findings and analysis of the Scoping Study. Energy Trust's Industrial Senior Technical Manager and Senior Evaluation Manager also reviewed and confirmed the study.
    - Upon board approval, Energy Trust will engage a consultant to complete a detailed technical analysis study of the measures.
- The measures are similar to Mod 1 and Mod 2 with the following changes:
    - EEM1 – savings from air changes per hour in Mod 3 are estimated to be about half of Mod 2 due to an updated baseline.
    - EEM2 – savings on the chilled water system assume VFDs on the chillers for Mod 3, but were not included in Mod 2. These additional Mod 3 savings are counteracted by a baseline change. Oregon code now requires chilled water temperature reset. These two items result in similar savings in Mod2 and Mod3, but different ways of getting there.
- Energy savings are estimated at 57,000,000 kWh over the first three years, which would make a significant contribution to meeting PGE's integrated resource plan and Energy Trust goals. As noted below, first-year project energy savings would cost significantly less than the average custom capital electric project.
- Staff's analysis of the project vis-à-vis the criteria for waiving program incentive caps:
    - Self-direction: the proposed incentive funding would be contingent on Intel's agreement to suspend self-direction at the Intel D1X site for at least three years.
    - Available incentive budget:
        - Under Oregon law, large customers do not pay or benefit from supplemental efficiency funding, and projects are funded only from SB 1149 three-percent public-purpose fund.
        - Staff proposes to structure a funding agreement whereby annual incentive payments would not exceed 33% of the total incentive amount, no more than $650,000 in any single year, an amount staff believes will minimize potential annual restrictions in available funds for large customers in PGE territory.
    - The first-year project energy savings would cost significantly less than the average custom capital electric project:
        - The incentive for this project will be payable at $.06/ first-year kWh. This compares to average custom capital project incentives of approximately $.17/first-year kWh.

- The incentive would be paid as measures are completed and become operational in 2022, 2023, 2024 and potentially 2025, depending on Intel's final construction schedule. Consistent with the established custom-track procedures, payments would require verification that measures have been installed, started up, commissioned and are in commercial operation. Any changes identified during the verification process that reduce savings from the study projections would reduce the incentive payment.

- Our funding agreement would require Intel to cooperate in Energy Trust's evaluation of energy saved by the project.

Recommendation

Staff endorses the proposed incentive, and recommends the board waive the Production Efficiency program incentive cap for the Intel D1X Mod 3 efficiency project.

RESOLUTION 0891
WAIVE PROGRAM INCENTIVE CAP AND AUTHORIZE INCENTIVES FOR THE INTEL D1X MOD 3 EFFICIENCY PROJECT

WHEREAS:

1. **The Energy Trust Production Efficiency program has worked with Intel to identify comprehensive energy saving measures for a new facility in which to develop advanced technologies. It is expected to be the largest construction project in the Portland metro area.**

2. **Energy efficiency aspects of the project were reviewed through standard Energy Trust processes for complex custom-track industrial projects, including a technical energy analysis scoping study commissioned by Energy Trust and carried out by an expert in high tech manufacturing efficiency.**

3. **The project's energy savings will cost significantly less than the average custom capital electric project. The incentive for the project will be payable at $.06/ first-year kWh; while custom capital electric projects average $.17/ first-year kWh.**

4. **Energy Trust funding would be contingent on Intel's agreement to suspend self-direction at the Intel D1X site for at least three years.**

It is therefore RESOLVED that the board of directors of Energy Trust of Oregon:

1. **Waives the Production Efficiency Program's incentive cap for purposes of this project; and**

2. **Authorizes the Executive Director to negotiate and sign an incentive agreement with Intel for up to $1.95 million total in incentives payable in annual increments of up to $650,000 over multiple years at a rate of not more than .06 cents per first-year kWh in savings, such incentive commitment contingent on Intel's agreement to suspend self-direction at the DIX Intel site for at least three years from the final incentive payment which must occur before or by December 31, 2025.**

Moved by: Seconded by:

Vote: In favor: Abstained:

Opposed: [list name(s) and, if requested, reason for "no" vote]

Tab 5

Audit and Compensation Joint Committee Meeting

October 23, 2019 10:30 am

Attending by Teleconference
Melissa Cribbins (chair of the compensation committee), Anne Root (chair of the audit committee), Mark Kendall, Roland Risser, Roger Hamilton (ex officio)

Karen Ward (Climate Trust)
Ann Konrad (Principal Financial)

Attending at Energy Trust offices
Pati Presnail, Cheryl Gibson, Debbie Menashe, Amanda Sales, Cheryle Easton

Debby Deering (Moss Adams)
Shelby DeSiervo (Cable Hill Partners)

Report of Independent Auditors

Moss Adams completed their audit of the Energy Trust of Oregon 401k plan for the year ended December 31, 2018. Debby Deering presented the plan financial statements and their communications with those charged with governance (sometimes called an 'opinion letter'). In the course of the audit, the team encountered no problems or obstacles. They did not identify any material internal control deficiencies. Moss Adams did note that, in one pay period, certain deposits of employee deferrals were not made within the timelines set forth in Department of Labor (DOL) guidelines. The employee deferral remittances at issue were made within days of receipt, and no remittances are outstanding.

Moss Adams recommends that Energy Trust monitor the timeliness of employee deferral remittances and review its procedures to ensure employee deferrals are deposited in accordance with DOL guidelines. Energy Trust staff responded that it will review its procedures, and Moss Adams repeated that this matter did not rise to the level of a significant deficiency or material weakness. Energy Trust staff and Moss Adams discussed the possibility of filing a voluntary correction action with the Department of Labor, and Energy Trust will consider that approach.

Meeting adjourned at 11:00 am

Tab 6

Compensation Committee Meeting Notes

October 24, 2019

Attending by Teleconference:
Mark Kendall, Roland Risser, Roger Hamilton (ex-officio)

Attending at Energy Trust office:
Amanda Sales, Debbie Menashe

Jeff Gates, Cable Hill Partners
Shelby DeSiervo, Cable Hill Partners
Ann Konrad, Principal Financial

Meeting started at 2:00 pm

Jeff Gates and Shelby DeSiervo, of Cable Hill Partners, and Ann Konrad, of Principal Financial, were present at the meeting to provide a quarterly fiduciary investment review to the committee. The presentation covered the third quarter of 2019.

Shelby provided a high-level update on the market and plan performance over the quarter, and committee members asked questions about factors affecting performance. Shelby referred committee members to the periodic table of returns and explained that 2019, thus far, shows cash at the bottom of the table, with the Balanced Index in the middle of the table. Most Energy Trust plan participants are in the Principal *RetireView* diversified portfolio, so their experience will be aligned with returns consistent with the Balanced Index.

Shelby provided further information about the allocation of plan investments. Energy Trust's plan has a relatively large percentage of investment in the fixed cash option, but is otherwise consistent with allocation in plans of similar size.

Jeff then presented information on the TIAA-CREF Social Choice Equity Institutional Fund, an investment choice available to Energy Trust plan participants. Cable Hill monitors Energy Trust's plan investment options using its investment review scorecard. Fund performance is scored on a scale of 1-10 based on a variety of performance, management and fee structures. As discussed in previous meetings, an investment fund choice scored at 6 or below is placed on a watchlist. To be removed from the watchlist, a fund must score at 7 or above for four quarters. The TIAA-CREF Social Choice fund appears to be headed off the watchlist, but because Energy Trust participants are interested in socially conscious, or "ESG" investing, Jeff has been monitoring alternative similar funds as they become available on the Principal platform. An attractive ESG alternative is now available: the Vanguard FTSE Social Index fund. This Vanguard Social Index fund scores consistently in the 8-9 range on Cable Hill's scorecard. Additionally, its returns outperform, and its fees are less than, the TIAA-CREF alternative. Jeff recommended that the Vanguard fund replace the TIAA-CREF fund on the plan fund platform. Based on this information and recommendation, committee members agreed. Principal, Cable Hill and Energy Trust staff

will coordinate to complete the change, including providing informational disclosures about the change to plan participants.

Jeff and Ann then provided information to the committee members regarding auto enrollment and automatic escalation features. Energy Trust currently auto-enrolls participants in the Energy Trust 401K plan. Committee members discussed the benefits of automatic escalation in plan contribution. Energy Trust's auto enrollment feature has resulted in excellent participation rates. Cable Hill and Principal recommend the automatic enrollment feature as a way to increase investment levels. Participants would be required to opt out of automatic escalation. Automatic escalation features would require plan amendment and disclosures to participants. Committee members support this approach but are interested in staff feedback. Cable Hill, Principal and Energy Trust's Human Resources group will work together to get input from staff and outline a transition plan. Energy Trust staff, Cable Hill and Principal advisors will return to the committee not later than September 2020 to confirm the direction and provide information on education and communication plans for participants regarding possible automatic escalation changes effective January 2021.

Ann then gave the committee a high-level summary of the distribution of plan investments and a snapshot of "retirement wellness," a measure of participation level, disaggregated by age of participation. Committee members expressed interest in continuing to improve participation. In addition to automatic escalation, Ann mentioned other features that may be of interest to plan participants. Committee members expressed interest in more information on these features, including student loan payment deductions.

Amanda Sales then updated the committee on changes to the employee health benefit plans for 2020. Overall, health benefit cost increases were less than projected, at around 5% over 2019 costs. Committee members asked for comparisons, and Amanda advised them that national averages for increases were 8-12%. Committee members asked for local averages, and staff will provide those. Other changes to the health benefit plan include a change in dental benefits and long and short-term disability insurance providers.

Meeting adjourned at 3:30 p.m.

Tab 7

Evaluation Committee Meeting

September 12, 2019, 12:00 pm

Attending at Energy Trust offices

Adam Bartini, Kathleen Belkhayat, Eric Braddock, Shelly Carlton, Sarah Castor, Michael Colgrove, Warren Cook, Phil Degens, Jon Eicher, Fred Gordon, Jackie Goss, Andy Griguhn, Kati Harper, Eric Hayes, Karla Hendrickson, Susan Jowaiszas, Abby Kemp, Oliver Kesting, Erika Kociolek, Jessica Kramer, Steve Lacey, Victoria Lara, Scott Leonard, Jennifer Light, Alan Meyer, Spencer Moersfelder, Alex Novie, Amanda Potter, Thad Roth, Dan Rubado, Christine Chin Ryan, Brien Sipe, Kirsten Svaren, Peter West, Mark Wyman

Attending by phone

Chad Gilles, Lindsey Hardy (*committee chair*), Marshall Johnson, Anna Kim, Jamie Woods

Residential Ductless Heat Pump (DHP) Study

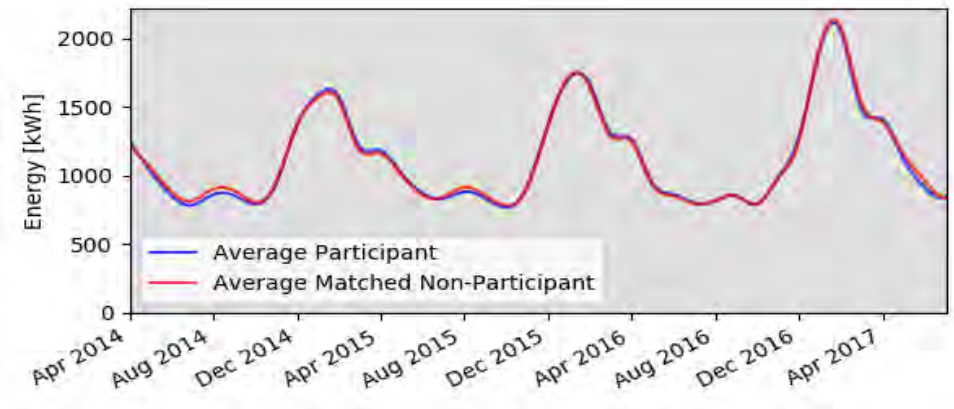
Presented by Dan Rubado

Background: Dan Rubado began the presentation with an overview of how ductless heat pumps (DHPs) work and how they can save energy compared to electric resistance heating. Starting a little more than a decade ago, the Northwest Energy Efficiency Alliance (NEEA) did a series of studies with Bonneville Power Administration (BPA) to determine savings from DHPs. Energy Trust began offering incentives for DHPs in 2008 for single-family homes and added multifamily in 2009. The prevalence of DHPs in homes is still low in the Northwest. As the volume of installations has increased, the costs have stayed flat, rather than declining as expected. There are recent mixed results on savings from evaluations of DHPs. The measure became non-cost-effective a couple of years ago when the Oregon Residential Energy Tax Credit (RETC) was discontinued. Energy Trust felt there was a need for further study to determine a program strategy for DHPs. This study is a billing analysis combined with a survey of participants.

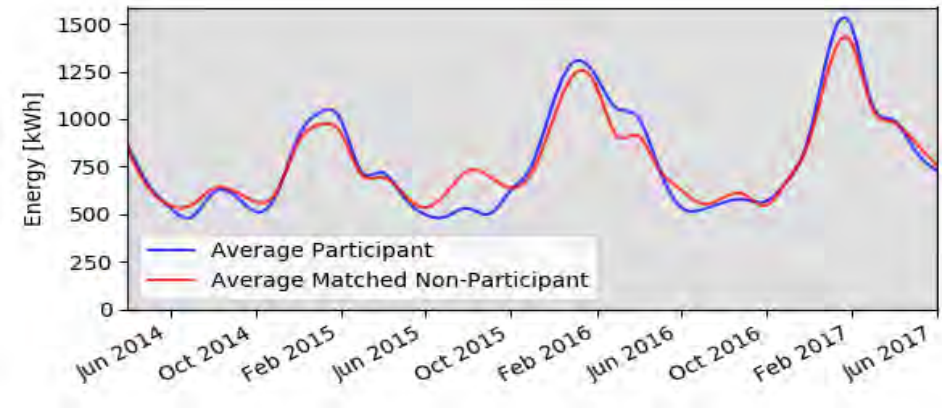
The study included DHPs in both single-family (SF) and multifamily (MF) structures. The goals were to quantify savings for various installation scenarios, determine the most cost-effective scenarios and primary drivers of variability in savings and installation cost. We wanted to better understand motivations for installing DHPs, the non-electric fuel impacts, other benefits not captured in billing analysis, impacts of DHPs on cooling, and control types and their impact.

Methodology: The evaluation contractor, Cadmus, selected a sample of DHPs installed in single-family and multifamily sites from 2015 through 2017. They also selected a sample of comparison sites – past program participants with electrically heated homes with no DHP installation. Past participants were selected for the comparison group because they have a similar propensity to participate in programs as DHP participants. Participants and comparison sites were matched by housing type, geography, and baseline energy consumption. There was one comparison site for each DHP participant. As shown in the graphs below, there was a good match between participants and comparison sites in terms of energy usage for single-family sites. The match in multifamily was not quite as good because there were fewer sites to choose from.

Single-family monthly baseline usage comparison:



Multifamily monthly baseline usage comparison:



For the billing analysis, we pulled monthly electric usage for all meters associated with participant and comparison projects. The baseline and post periods were defined by installation date. The month of the installation was removed from analysis. Homes were excluded for missing or insufficient usage data, installation of non-DHP measures during the study period with savings more than 10% of DHP savings, missing installation dates, account turnover, billing periods greater than 65 days, a miscategorized building type, no matched comparison site, being in the top or bottom 1% of baseline energy consumption, or having multiple DHPs at the site. The first three reasons were the most common for excluding sites, while others were uncommon.

Jamie Woods asked if we did a parallel movement test with the matched comparison group, which looks at the relationship between temperature and energy use. Dan Rubado said he will check with Cadmus about whether that was done. He said that the participants and comparison sites were treated as pairs so if one was dropped the other was dropped too.

Participant and comparison site characteristics were compared to see how well they matched after data cleaning. There were about 1,600 sites each in the participant and comparison groups and they had very similar characteristics on average, in terms of home age, location, and heating zone. One difference was that there was more zonal heat in the single-family participant group than the single-family comparison group (80% vs 10%, respectively). For multifamily,

there were only about 120 units in each group, and the participant and comparison sites had similar characteristics.

In terms of characteristics of the DHP systems, there was an average of 1.06 DHPs per site for single-family and 1.2 for multifamily. Fred Gordon asked if the multifamily DHP per site number was per occupied unit or per building. Dan explained that when pulling multifamily data, it was tough to tease out units from buildings; sometimes the number is per unit, sometimes per building. However, the savings numbers were divided by number of DHPs installed, so this type of error shouldn't bias the results, but it would add noise to the data. The majority of systems in both single-family and multifamily had one indoor head per site, but about 40% had two or more heads. Each head adds cost to the installation but from other studies we know it doesn't increase savings by much.

Cadmus did a survey of participants to collect site characteristics, motivations for installing DHPs, and system operations. They started by surveying single-family participants and then moved to multifamily, with surveys occurring in the second half of 2018. The survey was web-based through Qualtrics, and there was an email invitation with an offer of a $10 gift card as an incentive for completing the survey. If the participant did not respond to the emailed invitation, there was a follow-up postcard with a web link. If there was still no response after the postcard, the participant received a phone call. The study really tried to maximize the survey response rate, and it was above 30%. We also offered the option to complete the survey in Spanish. Cadmus first did a pretest of the survey with 30 volunteers in the energy industry who were familiar with DHPs to test the survey wording. Shelly Carlton asked if anyone responded in Spanish. Dan Rubado said he thinks there were responses in Spanish, but maybe only one or two. Jamie Woods asked about a known issue with emails from Qualtrics being caught in Gmail spam filters. Dan said this issue did occur with our Fast Feedback survey, so we were aware of it, but it didn't start until February 2019, after the DHP surveys were completed.

The billing analysis approach was fairly standard. It was a meter-level analysis, and results were aggregated to the site level and then divided by the number of DHPs installed at the site. Analysis involved 12 months each of pre- and post-installation usage data, compared to the comparison group, referred to as difference-in-differences. Results were normalized to a typical weather year. There were two modeling approaches: a building-level variable base degree-day model (PRISM-like), and a fixed effects panel regression model. The two methods yielded similar results, and we decided to go with the PRISM-like model because it allowed for more analysis by subgroups, to determine what was driving the savings estimates. Finally, the billing analysis results were informed and subset by the survey information.

Survey Findings: The most commonly reported motivations for installing a DHP were to save energy and money, closely followed by increasing comfort and cooling previously uncooled areas (as shown below). People were probably going to install cooling either way, but we influenced them to install more efficient equipment.

Motivations for installing a DHP:

Motivation	% of SF Sites	% of MF Sites
Save Energy	73%	84%
Save Money	71%	81%
Thermal Comfort	62%	53%
Cool Previously Un-Cooled Area	62%	62%
Interest in Sustainability	35%	62%
Replace Functional System	32%	43%
Interest in Technology	20%	32%
Heat Previously Un-Heated area	19%	18%
Replace Broken System	19%	9%
Safety	18%	25%
Improve Air Quality	15%	12%
Free Window Previously Occupied by an AC	13%	6%

The survey asked about changes in heating and cooling set points. Of the respondents, 68% said that they raised the heating temperature and 88% said they lowered the cooling temperature, both of which increase thermal comfort. They are not using their DHPs just to save energy. Anna Kim asked how the set point questions were asked. Dan Rubado said it didn't ask for the actual set points, just about the change. Jackie Goss noted that a lot of pre-existing thermostats don't have degree settings and Dan Rubado said the response was a qualitative assessment of change rather than quantitative. Jamie Woods asked if the billing analysis allowed changes to the reference temperature in the pre and post period. Dan Rubado said that each period was able to use its own temperature – they were not forced to be the same. Jennifer Light said that these results are consistent with other studies; people are more comfortable with a DHP and are using heating and cooling more. Alan Meyer said they could still be saving energy, but maybe not as much. He also said he is surprised that comfort wasn't the most mentioned motivation. Dan Rubado said they are marketed as an energy efficient technology and that may affect how people think about them. Eric Hayes said that comfort makes sense as a motivator for single-family, while multifamily motivations may be more about saving money if the property manager is paying the utility bill. Dan Rubado noted that many of the multifamily DHP participants and respondents were condo owners, so they generally pay the bills for their unit.

The survey asked about the original heating system. Respondents indicated that 55% and 83% of rooms (in single-family and multifamily, respectively) were heated with electricity before the DHP installation. A small number (6-10%) had gas heating. Almost 20% of single-family homes had a wood stove or fireplace. For homes with non-electric heat, most reported fuel savings, with an average of $370 reduction in wood cost. Most respondents are continuing to use other heating sources along with their DHP.

The most commonly reported DHP control type is a manual remote thermostat (73% for single-family and 93% for multifamily). The majority of respondents (64% of single-family and 52% of multifamily) had no cooling system other than the DHP; a quarter to a third had fans and about 10% had a room air conditioner (AC). The survey also asked a counterfactual question about cooling: "If I hadn't purchased a DHP, I would have…" As shown below, about 40% said

"continued using existing cooling equipment." For this answer, billing analysis accurately reflects savings. Another approximately 40% said "left the room uncooled." Billing analysis also accurately reflects savings in these homes. Of single-family respondents, 18% said "installed a room AC", as did 10% of multifamily respondents. This is where the billing analysis breaks down because savings don't account for installing some other type of cooling equipment.

Counterfactual cooling system:

Counterfactual Cooling System "If I hadn't purchased a DHP, I would have…"	% of SF Rooms	% of MF Rooms
Continued using the existing cooling equipment	39%	37%
Left the room uncooled	35%	44%
Installed a room AC unit	18%	10%
Installed a central heat pump system	5%	0%
Installed a central AC system	3%	3%
Installed some other type of cooling equipment	1%	0%
Don't know	0%	6%

Billing Analysis Results: The evaluated savings for DHPs were lower than expected. On average, single-family savings were 760 kWh per year, or 6% of total electricity use, while for multifamily, savings were 1,200 kWh per year, or 16% of electricity use. A review of project data found average costs of between $5,500 and $6,000. The highest savings were seen in single-family homes with electric forced air furnaces (eFAF) in heating zone 1. Savings in heating zone 2 were negative.

Savings results by housing type, previous heating system and heating zone:

Housing Type	Heating System	Heating Zone	kWh Savings	% Savings	Expected Savings
Single Family	Zonal ER	Zone 1	770	6%	2,110
		Zone 2	-350	-3%	2,310
	eFAF	Zone 1	1,400	10%	3,840
		Zone 2	-280	-2%	3,600
Multifamily	Zonal ER	Zone 1	985	14%	2,000

A primary driver of low savings was a DHP displacing non-electric heating, such as wood, gas, oil or propane. Secondary drivers of savings results were adding heat to previously unconditioned spaces, adding or increasing cooling, optimizing comfort, and the addition of more than one indoor head. As noted, the results do not capture the effects of a DHP relative to an alternative cooling system. There are also data issues with assessing systems in multifamily buildings where not all units receive a DHP.

Savings increased slightly when sites with gas or multiple indoor heads were removed. Removing sites with wood or other supplemental fuels further increased savings for single-family, but slightly decreased them for multifamily. There are not enough sites at that point to differentiate by heating zone, but single-family homes with zonal electric heat or eFAF had savings of 2,160 and 5,700 kWh, respectively; multifamily DHPs saved 930 kWh.

The billing analysis found higher savings for:

- Homes with no supplemental heating fuel
- Higher baseline electricity usage
- Smaller homes (single-family)
- Homes built before 2000
- Systems installed with head in living room
- Systems with low and high heating capacity
- Systems installed more recently
- Regions outside Central and Southern Oregon

In single-family homes, 1-to-1 systems had higher savings, while in multifamily, 1-to-2 systems had higher savings. The ideal scenario to maximize savings in single-family homes is a 1-to-1 system with the indoor head installed in the living room and no supplemental heating fuels; in those cases, savings were 2,180 kWh for homes with zonal electric heat and 6,700 kWh for homes with an electric furnace. The average cost for the ideal scenario is also lower at $4,700. Our program has not restricted incentives to the ideal scenario. Jennifer Light said that this doesn't seem surprising given results from other studies – results seem to be converging.

To estimate cooling savings, it was necessary to do an engineering calculation to account for the portion of DHPs that were installed rather than a less efficient cooling system. A DHP has an average SEER of about 18 versus about 11 for a window AC. Cadmus estimated that in single-family homes, the DHP saves about 200 kWh and in multifamily it saves about 130 kWh over a window AC unit.

While not the primary goal of the study, we also looked at the main drivers of high DHP costs. The cost data were from invoices and there were some errors in the data, so the results were more qualitative. Higher costs were associated with 1-to-many head systems, higher capacity systems, slab-mounted systems (versus bracket-mounted), larger homes, and a location in the Portland Metro area.

Conclusions: The high prevalence of supplemental fuel usage, DHPs installed in previously unconditioned spaces, and continued use of less efficient existing systems all negatively impacted savings. Installing DHP heads in primary living spaces positively impacted savings. Sites with low annual energy usage had below-average savings. DHP systems with one indoor head were more cost-effective. Increased comfort was an important benefit that negatively impacted savings. Outdoor units mounted on concrete slabs had higher installation costs.

Recommendations: The evaluator recommended the following:

- Document and track all heating fuels during installation
- Calculate non-energy benefits for non-electric fuel savings
- Better target homes with electric resistance heating systems
- Document unconditioned spaces during installation and assume less efficient heating baseline in savings
- Educate occupants to use the DHP in place of other systems to increase savings
- Encourage installation of DHPs in primary living spaces
- Inform homeowners that DHPs installed in homes with minimal heating have poor returns on investment
- Reduce incentives for systems with more than one indoor head
- Quantify the value of improved thermal comfort and include as a non-energy benefit

- Encourage bracket mounting of outdoor units

Dan Rubado noted that overall savings were disappointing, but there is room to address issues to improve savings. The ideal installation scenario has savings similar to deemed savings. There is agreement that this could be a good way to increase participation among lower-income and rural households, smaller homes, and homes with higher occupancy. DHPs just received another exception from the Oregon Public Utility Commission (OPUC) to continue incentives for the next two years while Energy Trust works to make the measure cost-effective.

Next steps: Energy Trust has adjusted the measure analysis to assume a 1-to-1 system in the primary living space, account for the wood reduction benefit, cooling benefit and the recent update to avoided costs. The program is enhancing measure requirements and market strategies to address installation cost. The program currently has a fixed price offering to lower the cost of DHPs and is targeting housing in areas where DHPs are more cost-effective.

Eric Hayes asked how we plan on discouraging people from using other fuels. Dan Rubado said that the savings on wood heating with DHPs makes them cost-effective in that situation, so there is not a need to discourage them in wood-heated homes. Homes heated with gas, oil or propane are already not eligible to receive a DHP incentive from Energy Trust.

Alan Meyer asked if the program can require the previous electric heating to be removed. Jennifer Light said they aren't meant to do the whole house, so you wouldn't want to remove heating from areas away from the DHP, but you could do it in the main room. Sarah Castor said that there is some anecdotal evidence that the baseboard in the main living area is removed so that the DHP can use that circuit. Dan Rubado also noted that there may be demand response potential from DHPs, and we will be investigating this over the next year, especially for cooling.

Steve Lacey asked if we are planning to promote DHPs to offset room AC as part of Targeted Load Management projects and asked if anyone has looked at demand savings. Jackie Goss said it would be hard to tell the demand savings because of the sizing difference between DHPs and window AC. Phil Degens said that BPA developed some load shapes for a non-wires project in the Tri-Cities area. Jamie Woods said he will send Dan Rubado some more statistical information by email.

Anna Kim had questions about the comfort benefits of DHPs. Planning and Evaluation staff will follow up with her.

Production Efficiency Program 2017-2018 Process Evaluation

Presented by Erika Kociolek

Background: The last process evaluation of the Production Efficiency (PE) program was completed in 2013. We started scoping this process evaluation in 2016 but delayed it due to staff departures and the custom program delivery contractor (PDC) rebid in early 2018. In the interim, Energy Trust has done other smaller studies including evaluations of Strategic Energy Management (SEM), the CORE pilot, and Operations & Maintenance (O&M) measures; along with market research on the water and wastewater sector, the lighting tool, cannabis growers, and small manufacturers. We have also conducted Fast Feedback surveys.

The PE program began in 2003, and serves industrial and agricultural facilities in Oregon. The program works with five PDCs to deliver the SEM, custom, streamlined and lighting tracks. The custom track is delivered by three PDCs with defined geographic territories. In 2018, the program reported the following projects and savings:

Program Track	N	2018 kWh Savings	2018 Therm Savings
Streamlined Industrial	608	18,653,709	998,662
Lighting	480	61,330,526	0
Custom			
Custom Capital	116	43,277,676	1,230,131
Custom O&M	33	7,544,950	263,126
SEM	35	13,712,221	142,613
Mega-projects	1	17,215,856	0
Total	**1,273**	**161,734,938**	**2,634,532**

There have been many recent program changes. The program began offering “continuous SEM” in 2016. First-year SEM can be followed by continuous SEM, which is more tailored to the individual customer. The program has also standardized the first-year SEM curriculum and is working on “streamlined” SEM for smaller customers with lower savings potential (having served most of the big customers). The custom PDCs are now the SEM coaches, which used to be a separate pool of contractors. This change was also meant to streamline the program. PDCs now do all the technical analysis studies (TAS), rather than having some done by custom PDCs and some by Allied Technical Assistance Contractors (ATACs). Custom PDCs are also now processing project applications, which was previously done by Energy Trust staff. There is a newer streamlined TAS for smaller projects. The program has developed a new lighting buy-down program, which is different from a midstream offering as it still requires customer information and signatures. Energy Trust has a diversity, equity and inclusion (DEI) initiative and operations plan, leading the PE program to focus on small and medium businesses in rural areas. Finally, the PDCs are now developing measures, with oversight from Energy Trust engineers.

This evaluation had many goals, many of which are shared across all process evaluations:

Research Topics	Research Questions
Program performance	· Savings achieved · Sites served
Strategic Energy Management	· Current energy management practices
Program changes	· Recent changes and impacts · Planned changes
Program successes, opportunities, challenges	· Successes and challenges · Opportunities for deeper savings
Communication and coordination	· Coordination effectiveness · Opportunities for improvement
Measure development	· Measure development process effectiveness
Reaching small- and medium-sized customers	· Efforts taken and learnings; opportunities to cost-effectively serve

Methodology: Opinion Dynamics Corporation (ODC) was the evaluator, having acquired Research Into Action who was initially hired to do the evaluation. The main methods were document and data review, SEM follow-through analysis, free ridership analysis to assess if free ridership was different for repeat and/or SEM participants, and interviews with program staff, market actors, participants, and nonparticipants.

Findings from the SEM follow-through analysis: There were three primary drivers for the SEM follow-through analysis. First, there was anecdotal evidence from program staff that SEM participants do more capital projects than others; that is part of the goal of SEM and can also be challenging for the program because capital project savings need to be backed out of SEM savings. Second, this analysis was an update to a prior analysis by Dan Rubado that had a small sample size. Third, the program sees value in SEM beyond immediate energy savings: it is a pipeline for capital projects. The evaluator analyzed 2012-2018 data for about 100 SEM sites. They compared SEM to non-SEM customers in the two years before and after SEM participation, looking at the number of projects and total energy savings. The evaluator found that SEM is associated with one additional capital project compared to sites not enrolled in SEM, with average additional savings of 159,000 kWh. There was no significant difference in therm savings between SEM and non-SEM customers. These results are similar to findings for commercial SEM in the 2018 Existing Buildings process evaluation. Phil Degens noted that these were not continuous SEM participants – they were participants in first-year SEM engagements.

Findings from the free ridership analysis: Since Energy Trust is moving from reporting net savings to gross savings, this analysis is potentially less relevant, but still interesting. The primary question was: “Is repeated participation and/or participation in SEM associated with higher or lower free ridership?” Before the analysis, we hypothesized that the effect could go either way. The evaluator analyzed 2011-2018 data, representing 1,300 projects that were surveyed through Fast Feedback, including 200 projects done at SEM sites. The analysis compared free-ridership for participants’ first projects with later projects, participants that had done multiple projects versus just one project, participants before and after SEM participation, and SEM and non-SEM participants

There were no differences in average free ridership. Alan Meyer asked if we weren't assessing spillover because of SEM. Erika Kociolek said we have asked before if SEM leads people to do more things and the answer is yes. Savings from spillover are hard to estimate with survey results. The evidence is clear that there is an effect, we're just not sure of the size of the effect. Phil Degens clarified that this analysis didn't involve new surveys, interviews, or data collection. Fred Gordon said we will continue to gauge influence with Fast Feedback, just not trying to quantify it and apply to savings. We are still interested in our influence in the market.

Findings from staff interviews: Nineteen program and PDC staff were interviewed, and the interviews happened at multiple points in time, partly because of the custom PDC re-bid and transition. There were many topics covered in the interviews. Interview findings noted the changes to SEM and emphasized benefits to changes, including reduced customer confusion, and improvement in customer recruitment, cost control, and savings accountability. The changes to the custom PDC role and the streamlined TAS had similar benefits to the changes to SEM. There were some initial challenges with incentive processing in early 2019, but things are going better now. The lighting buy-down has not had as much uptake as in other sectors, which may be due to the lighting types not being as relevant to the industrial sector. Additionally, the sales tracking requirements were challenging, and larger companies can't change their tracking systems to accommodate the buy-down requirements. At the time of staff interviews, staff were still working to define the meaning of the DEI initiative for the program. They noted some challenges to serving small and medium businesses, including staffing limits at small companies. Marketing was reported to be working well and using a lot of different activities to reach customers. Communication between the program staff and PDCs was very good all around. The evaluation did not gather much feedback on measure development; the evaluator suggested separate, focused research on this topic. The most significant program challenges identified were serving smaller customers cost-effectively and providing more granular forecasts, but there are tools available to help with these issues.

Findings from contractor and distributor interviews: These interviews were focused on the lighting buy-down. Six contractors and three distributors were interviewed. They reported there are still substantial opportunities in industrial and agricultural lighting, especially in controls. Two interviewees cited challenges with program paperwork. There was not much awareness of the DEI initiative, which makes sense given the point in time the interviews happened. Almost all the contractors and distributors were satisfied with their program experience. There was some dissatisfaction with the time needed to obtain pre-approval for projects and with instances when the incentive was less than expected. They noted recent improvements in the lighting calculator tool.

Findings from participant surveys: Sixty-five participants in the lighting, streamlined, custom and SEM tracks were surveyed. We experienced the previously noted issues with emails from Qualtrics being caught in spam filters, so it was hard to get enough responses. The evaluator also had trouble getting people on the phone to complete the survey. There were only four SEM respondents, which is a result of other evaluations that had already touched SEM customers. We wanted to avoid participant survey fatigue. There was a mix of market segments and newer and repeat participants.

Just under half reported hearing about the program through a contractor or supplier, and 27% heard about the program through direct outreach. More than half (59%) of non-SEM participants reported at least one energy management practice in place at their company and 46% said there is opportunity to save more energy at their company.

Overall satisfaction is high at 81%. This is lower than the satisfaction reported in Fast Feedback, and Erika Kociolek said there were a couple of potential reasons for the difference. Fast Feedback is on 5-point scale, while the evaluation used an 11-point scale, which probably led to more "neutral" ratings. For Fast Feedback, we also exclude "don't know" answers from the denominator but didn't do the same in this evaluation report. We will address this in the final report. We continue to track satisfaction through Fast Feedback and haven't seen negative trends there.

Findings from nonparticipant surveys: Thirty-one nonparticipants were surveyed. Ninety percent had heard of Energy Trust. Two thirds (68%) reported at least one energy management practice in place at their company and three quarters reported "some" opportunities to save more energy, but many of these reported they don't need help to do it.

Recommendations: On the lighting buy-down, the evaluator recommended simplifying the application requirements, improving communication and training with distributors and conducting additional research on the structure of the industrial lighting market. For the cannabis market, the evaluator recommended training (or facilitating training) of lighting contractors to better serve that market, providing outreach materials to educate growers and exploring the relationship between large agricultural distribution companies and cannabis growers. They also recommended additional research to assess the measure development process.

Based on the evaluation results, Energy Trust feels the program is operating well and is set up to continue working well. Recent changes have addressed some issues and challenges and are benefiting customers. The SEM follow-through analysis demonstrates that SEM provides benefits in addition to direct savings which should be considered when assessing SEM costs. The free ridership analysis concluded that there is not a difference in free ridership between SEM, repeat, and single-project customers. The program works primarily with lighting manufacturers, not contractors, on lighting projects for cannabis growers. Jessica Kramer noted that electricians don't have the horticulture background that other contractors do.

The lighting buy-down has had less uptake in the industrial sector than anticipated, for reasons already noted. The program is working to finalize a five-year commercial and industrial lighting strategy, a key part of which is a midstream offering. The program plans to phase out the lighting buy-down. The program will also undertake a focused assessment of the streamlined TAS to understand if the savings estimated by the streamlined TAS are reasonable. They are looking to potentially increase the thresholds for project size for the streamlined TAS. A review of the measure development process was completed in 2018 and several workgroups were formed to focus on resolving issues identified in that review.

Existing Buildings Program 2017 Impact Evaluation

Presented by Sarah Castor

Background: DNV GL conducted the 2015 and 2016 Existing Buildings impact evaluation. The 2017 Existing Buildings impact evaluation started in May 2018 and wrapped up in July 2019. The Existing Buildings program is comprised of three capital measure tracks (Lighting, Standard, and Custom) and SEM. The object of this impact evaluation was to estimate realized savings and realization rates to be used in budget development and true-up reporting.

2017 Existing Buildings claimed measures and savings

Program Track	Unique Measure Lines	Working kWh	% of kWh Grand Total	Working therms	% of therms Grand Total
Lighting	6,675	80,527,411	61%		
Standard	1,678	20,127,512	15%	900,864	48%
Custom	218	24,452,156	19%	780,488	41%
Capital Measures Only	**8,571**	**125,107,079**	**95%**	**1,681,352**	**89%**
SEM Cohort	166	6,014,681	5%	209,043	11%
All Existing Buildings	**8,737**	**131,121,760**		**1,890,395**	

The table above shows 2017 claimed measures and savings for the Existing Buildings program. The Lighting track accounts for a significant majority of overall program electric savings (80 million of a total of 131 million kWh). The Standard track accounts for 15% of overall program electric savings, but 48% of overall program gas savings. The Custom track accounts for a large portion of overall program electric and gas savings: 19% and 41%, respectively. SEM typically accounts for a larger portion of program savings in a given year, however, in 2017, the program only booked savings for Continuous SEM participants. The savings for year one participants was booked in 2018.

Methods: The evaluator reviewed program data, developed a sample design, and then selected the sample and requested project files. A few projects only received a file review, but others involved some form of data collection – i.e., a phone interview or site visit. Once data collection was complete, the evaluator performed analysis, which, depending on the project, included review of any engineering calculations, running calibrated simulation models, or performing regression analysis. The evaluator provided memos summarizing findings along the way and provided a final report.

For the Lighting track, a big part of the program is standard lighting. A smaller component is direct-install lighting, delivered through a subcontract with SmartWatt. In this evaluation, the evaluator looked at tube LEDs (TLEDs) which are a newer technology. For SEM, as noted previously, in 2017 only Continuous SEM measures were evaluated, as no savings for year one participants was booked. For sites that had done measures through other tracks, the capital measures were evaluated. Other priorities included boilers (which have had issues for several years), strip curtains (a significant measure in 2017), and purchased power strips (as part of the 2015-2016 impact evaluation, power strips provided as leave-behinds were evaluated, but none that were purchased by customers and received incentives from Energy Trust were evaluated). The largest gas-saving project (a heat recovery chiller which saved an estimated 134,000 therms) was removed from this evaluation. It was the first phase of a two-phase project; savings from the second phase were booked in 2018. In addition, the customer had to shut the equipment down – they did not have enough load for the chiller and were concerned about the effects of short-cycling on the equipment. Given this, we will evaluate this project at a later date.

The savings shown in the table above include the chiller, but this project was removed from the evaluation.

Findings: As noted previously, the Lighting track accounted for savings of over 80 million kWh. TLEDs accounted for about 23 million kWh, which was double that of 2016. The evaluation sample was 48 projects, and the evaluator was able to complete data collection for 88% of the overall sample. This was an improvement from the 2015-2016 impact evaluation (75%). The realization rate for the Lighting track was 98% overall. Realization rates were 98% for standard lighting, 103% for direct-install, and 100% for street lighting. Almost all customers who installed TLEDs were satisfied with them, and only one had experienced a failure. None were removed.

Jamie Woods commented that small cell sizes can bias results. It would be simpler to treat each individual unit as its own study and do a meta-analysis. Sarah Castor will follow up with Jamie Woods to get more information about this approach.

For the Lighting track, the evaluator recommended trying to get accurate hours of use, because this has a big influence on estimated savings. They also recommended quantifying and reporting changes in energy use related to interactions between lighting and HVAC systems. This is challenging for Energy Trust for several reasons discussed at prior evaluation committee meetings – we recognize that we hear this recommendation frequently. The evaluator recommended that Energy Trust continue to support TLEDs, and did not see a need to conduct further interviews about customers' experience with TLEDs moving forward.

The Standard track accounted for savings of over 20 million kWh and over 900,000 therms. The track contains a variety of measure types, such as refrigeration, cooking, HVAC, shell, and power strips. The evaluation sample was 68 projects, and the evaluator was only able to complete data collection for 72% of the overall sample. The evaluator also reviewed measure approval documents (MADs). The electric realization rate for the Standard track was 88% overall, and the gas realization rate for the Standard track was 105% overall. Electric realization rates were 55% for power strips, 84% for refrigeration, and 98% for other. Gas realization rates were 80% for boilers, 53% for gas fryers, 368% for refrigeration, and 54% for other. Six power strip projects were evaluated, but these were completed at two school districts. One of the districts was handing out power strips upon request, and not many were handed out at the time of the evaluation, which lowered the realization rate. For refrigeration, in several cases, strip curtains were cut or tied back in a way that reduced or eliminated energy savings. Boilers have seen lower realization rates over the past few years for a few reasons, including the installation of boilers as backups to other boilers in non-space heating applications, and in ways that don't allow the condensing features to be used. Likewise, gas fryers have seen lower realization rates over the past few years for a few reasons, including the MAD assuming large vats (whereas most are standard vats) and the installation of gas fryers in non-restaurant sites (where fryers are infrequently used). A few insulation measures were installed in buildings considered to be major renovations (and therefore subject to code). The very high realization rate for gas refrigeration was due to the program not accounting for interactive effects with HVAC from cooler door measures: the reduced cold air leakage saved on the need to heat with gas.

As part of the evaluation of the Standard track, the evaluator reviewed relevant MADs. The evaluator had already reviewed most of the MADs as part of the 2015-2016 impact evaluation, so many of these recommendations are the same as those presented in the 2015-2016 impact evaluation. The evaluator found that newer MADs look better than older MADs. The evaluator had a difficult time matching MADs to measure codes. In the future, this will be much easier due to some upcoming changes in Energy Trust's systems. The evaluator found that in some cases,

the MADs did not include enough sources or references for assumptions, and deviations from standard calculators like Energy Start were not well justified. They also noted that there were unclear baselines in some cases.

For the Standard track, the evaluator recommended working to improve the MADs, and make sure the project files have good contacts for evaluation, which may not be the person who was paid the incentive. The evaluator recommended ensuring that interactive effects for cooler doors are symmetric: They were accounted for on the electric side, but not on the gas side. The evaluator also recommended reviewing the gas fryer assumptions. Regarding boilers, the evaluator recommended developing a boiler measure for non-space heating applications and adjusting space heating boiler measures for lead/lag sequencing. Finally, the evaluator recommended ensuring projects are not subject to code.

Jackie Goss commented that the gas fryer measure was updated in 2018 for use in 2019. That update including changing the vat size specified in the MAD and accounting for high use and low use applications. She also noted that the boiler measure has, since 2017, had a requirement for boilers to be primary and used in space heating applications. The MAD was revised this year for use in 2020, and now includes a pool heater measure.

The Custom track accounted for savings of over 24 million kWh and over 780,000 therms. The evaluation sample was 38 projects, and the evaluator was able to complete data collection for 95% of the overall sample. Fifteen projects received site visits, and the rest were phone interviews. The electric realization rate for the Custom track was 90% overall, and the gas realization rate for the Custom track was 87% overall.

For the Custom track, the evaluator noted that the models and analysis were good quality overall. There were no systemic errors, but there were a few one-off errors. The evaluator noted that Trane Trace models were not as high-quality, and they also noted that some projects used non-standard weather files. There were no clear differences in project performance among allied technical assistance contractors (ATACs). The drivers of project performance included changes in operating hours, changes in setpoints, and changes in load.

For the Custom track, the evaluator recommended using standard weather files or including special weather files with models. They also recommended improving Trane Trace modeling and working with ATACs to improve their skill and documentation, and provide final models. The evaluator recommended taking a closer look at simulation inputs for projects with estimated energy savings of more than 20% of total consumption of the building. Finally, the evaluator recommended increasing documentation of changes to building controls – in particular, the pre- and post-project control setpoints.

The SEM track accounted for savings of over 6 million kWh and over 209,000 therms. The evaluation sample was 48 sites, and the evaluator was able to complete data collection for only 75% of the overall sample. There was a lot of non-response or refusals, likely due to the large number of interviews completed with these continuation participants over the past few years. About a third of the sites received site visits, and the rest were phone interviews. The evaluator had to create new models to comply with program guidelines; the program is actively working to re-baseline customer models, so this will be less of a problem for the evaluator in the future.

The electric realization rate for the SEM track was 92% overall, and the gas realization rate for the SEM track was 66% overall. The evaluator had to make changes to models to comply with program guidelines; this was a significant driver of the low gas realization rate. In addition, the

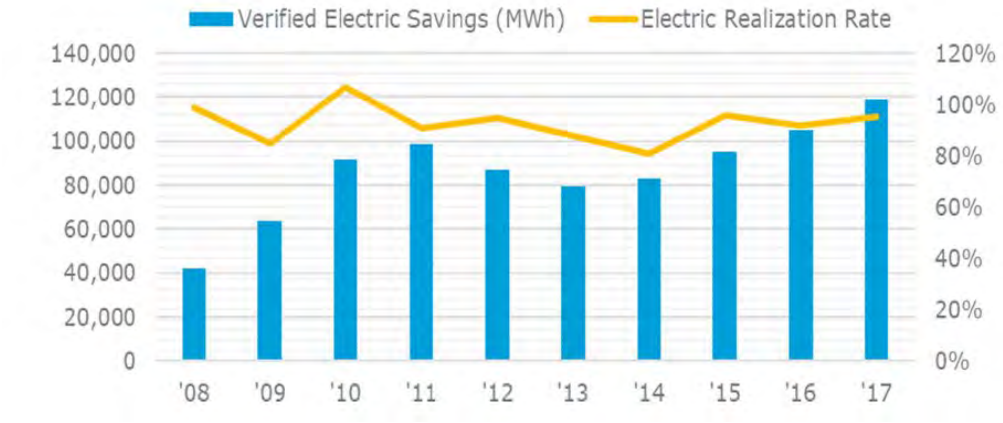
evaluator removed savings from some sites that did not report any substantial program engagement, as it's not enough to show savings from regression analysis. The program does not claim savings that could be due to random fluctuations in energy consumption. It is worth noting that the site-level realization rates varied greatly, from 0%-154% on the electric side and from 0%-202% on the gas side.

The evaluator noted that most models predated the program's modeling guidelines. Sometimes, there was little documentation about why a model was chosen other than improved sit, and sometimes deviations from the program's modeling guidelines were not explained. The evaluator noted that participants value the SEM energy coaches and peer learning. In 2017, the program experimented with a "mega" cohort – having larger workshops with more participants from more program years. Participants had mixed reactions to the "mega" cohort – some liked it, and some felt it did not provide value. Finally, the evaluator noted that the level of activity documentation varies greatly by project – some provide a lot of information and some provide relatively little information.

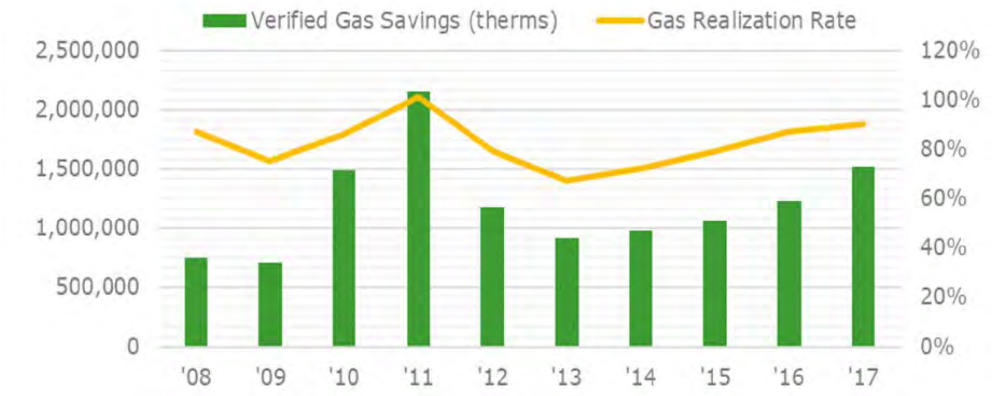
For the SEM track, the evaluator recommended continuing to emphasize coaching. The evaluator also recommended putting low-engagement participants into an inactive status and re-engage them at a later time. Finally, the evaluator recommended reviewing and enhancing documentation requirements for activities and continue working to re-baseline models.

Conclusions: Overall, the program achieved an electric realization rate of 95% and a gas realization rate of 87%. The graphs below show savings and realization rates over time.

Electric capital measure savings and realization rates over time:



Gas capital measure savings and realization rates over time:



On the electric side, capital measure realization rates have been fairly consistent over time – ranging from 80% to 100%. On the gas side, capital measure realization rates have been more variable, but there has been a steady increase in realization rates over the last five years. SEM realization rates have been relatively stable on the electric side and have been more variable on the gas side. In 2017, we saw a dip in the SEM gas realization rate but expect the program's re-baselining work to help stabilize that realization rate.

Energy Trust feels the program is performing well. There is ongoing work to update and improve MADs, and to re-baseline SEM models. The 2018 impact evaluation has kicked off, and data collection will occur in Fall 2019, with a report expected in Q1 2020.

Meeting adjourned at 2:53pm.

Sarah Castor will send out a poll to schedule the next two meetings – one at the end of October 2019 and one in early December 2019.

PINK PAPER

Impact Evaluation of the 2017 Existing Buildings Program

Energy Trust of Oregon

Date: 8/8/2019

0 EXECUTIVE SUMMARY

Energy Trust of Oregon (Energy Trust) hired DNV GL to complete an impact evaluation of Energy Trust's 2017 Existing Buildings program. This report presents the methods, results, and findings of the evaluation. The goal of the evaluation was to improve savings estimates and enhance the Existing Buildings program's effectiveness in delivering savings to customers.

0.1 Program overview

The Existing Buildings program began in March 2004 and is implemented by a program management contractor. ICF International has been the PMC since January 1, 2013. The program has four main tracks: Custom, Lighting (including standard, direct-install, and street lighting measures), Standard (prescriptive), and Strategic Energy Management (SEM).

0.2 Savings claimed

Table 0-1 shows the gross claimed program savings by track and fuel included in the program tracking data provided to DNV GL. The values shown are the site-level "working" savings listed in the data provided. These savings do not include adjustments for prior realization rates, net-to-gross, or transmission and distribution.

Table 0-1: Claimed energy savings, by fuel, and track

Program Track	Unique Measure Lines	Working kWh	% of kWh Grand Total	Working therms	% of therms Grand Total
Lighting	6,675	80,527,411	61%		
Standard	1678	20,127,512	15%	900,864	48%
Custom	218	24,452,156	19%	780,488	41%
Capital Measures Only	**8,571**	**125,107,079**	**95%**	**1,681,352**	**89%**
SEM Cohort	166	6,014,681	5%	209,043	11%
All Existing Buildings	**8,737**	**131,121,760**		**1,890,395**	

0.3 Evaluation results

Table 0-2 shows the evaluated savings by fuel and track. Table 0-3 provides the final program and track level realization rates achieved. Note that the evaluated savings for Custom Gas is not equal to the realization rate times the claimed energy savings. Due to information learned through this evaluation, one large project was removed from the sample frame and will be evaluated separately.

Table 0-2: Evaluated energy savings by fuel and track

Program Track	Electricity Savings (kWh)	Gas Savings (therms)
	2017	2017
Lighting	79,302,959	
Standard	17,711,325	950,155
Custom	21,987,514	565,279
Capital Measures Only	**119,001,799**	**1,515,434**
Strategic Energy Management	5,539,687	137,968
Grand Total	**124,541,486**	**1,653,402**

Table 0-3: Program realization rates by fuel and track

Program Track	Electricity Realization Rates	Gas Realization Rates
	2017	2017
Lighting	99%	
Standard	88%	105%
Custom	90%	87%
Capital Measures Only	**95%**	**90%**
Strategic Energy Management	92%	66%
Existing Buildings Program	**95%**	**87%**

0.4 Historic capital measure performance

Table 0-4, Figure 1 and Figure 2 show historic program performance for capital measures. The table and charts do not include the SEM track, which was added to the Existing Buildings program impact evaluations in 2015.

Table 0-4: Historic program performance, excluding SEM

Program Year	Verified Electric Savings (MWh)	Electric Realization Rate	Verified Gas Savings (therms)	Gas Realization Rate
2008	41,887	99%	746,564	87%
2009	63,537	85%	705,644	75%
2010	91,884	107%	1,486,729	86%
2011	98,776	91%	2,148,020	101%
2012	86,911	95%	1,174,676	79%
2013	79,612	88%	911,922	67%
2014	82,699	81%	973,143	72%
2015	94,992	96%	1,061,316	79%
2016	104,962	92%	1,228,416	87%
2017	119,002	95%	1,515,434	90%

Figure 1: Historic Non-SEM program electric savings and realization rates

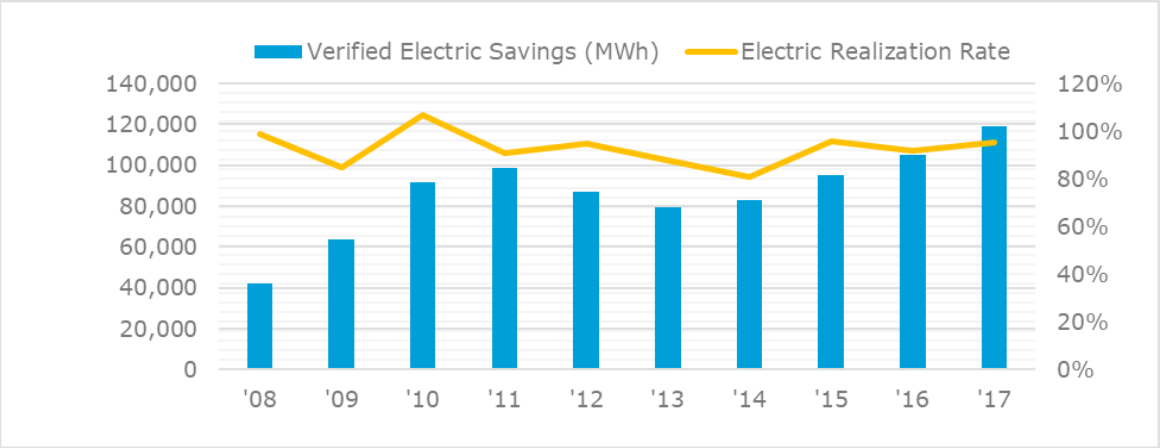
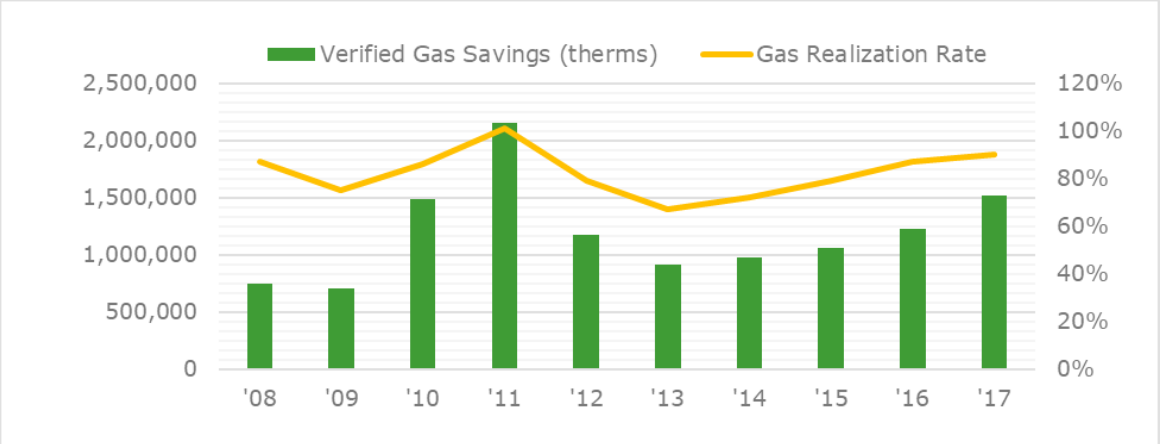


Figure 2: Historic Non-SEM program gas savings and realization rates



0.5 Historic SEM performance

Table 0-5, Figure 3 and Figure 4 show historic SEM performance over time.

Table 0-5: Historic SEM program performance

Program Year	Verified Electric Savings (MWh)	Electric Realization Rate	Verified Gas Savings (Therms)	Gas Realization Rate
2012	7,351	139%	-18,452	-15%
2013	8,988	103%	174,390	47%
2014	11,514	89%	690,639	160%
2015	9,217	89%	446,946	83%
2016	9,039	92%	546,458	113%
2017	5,540	92%	128,402	66%

Figure 3: Historic SEM program electric savings and realization rates

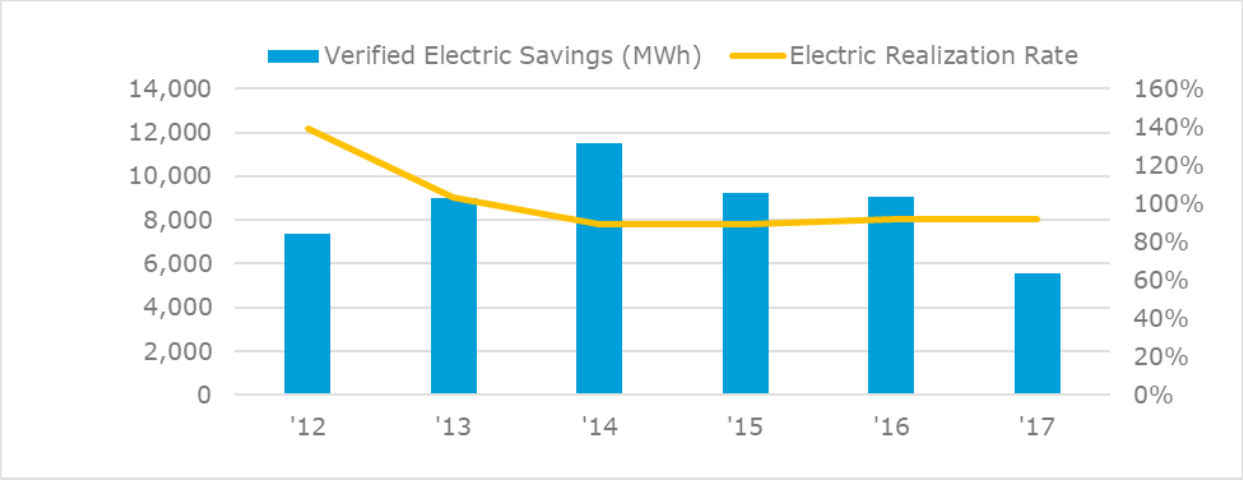
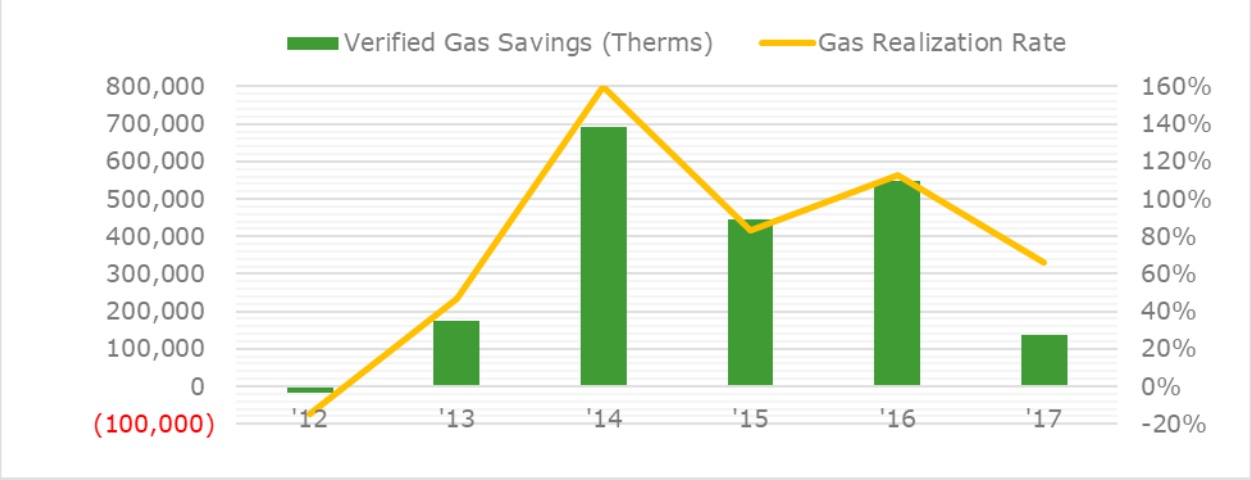


Figure 4: Historic SEM program gas savings and realization rates



0.6 Evaluation findings and recommendations

This section provides key findings and recommendations resulting from this study. Additional findings are presented within each track-specific section.

0.6.1 Lighting recommendations

- **Finding** – The estimated kWh savings differed by at least 10% from the reported savings for only four lighting projects. Two projects had lower evaluated savings than reported savings; two had higher. Overall, the program accurately estimated lighting end-use energy savings.
  - **Recommendation** – Program staff should continue to emphasize the importance of accurate estimates of operating hours during training for trade allies.
- **Finding** – General satisfaction with tubular LEDs (TLEDs) is high and performance issues are minimal. The twenty-three survey participants gave their TLEDs an average rating of 4.7 out of 5, with all but one giving either a 4 or 5. One participant gave a 3 rating, saying his new TLED fixtures were bright enough but he wasn't sure he was saving money on his electric bill. Only one customer indicated that he'd had a problem with any of his TLEDs (a fixture stopped working), and he had not yet contacted his contractor to resolve it. No respondents had removed any lamps or fixtures since the retrofit, another indication of high satisfaction with lighting system performance.
  - **Recommendation** – Continue supporting the installation of TLEDs. No systematic concerns were identified. DNV GL recommends not including these TLED specific questions in future impact evaluations of this program.

0.6.2 Measure Approval Documents recommendations

- **Finding -** For the 2017 evaluation there was only one MAD we had not already reviewed, the 2014 MAD for variable-speed drives on vent hoods. As with the MADs we reviewed for the 2015-16 program years, we found that the MAD does not provide sufficient transparency and traceability to support reliable savings estimates.
  - **Recommendation** – DNV GL understands that Energy Trust has been updating the format and content of these documents over time. While creating, maintaining, and updating prescriptive measure assumption documentation is a time-consuming process without a perfect solution, DNV GL recommends that Energy Trust continue to explore opportunities to improve the transparency, content, and application of its prescriptive measure supporting documentation system.

0.6.3 Standard measure recommendations

- **Finding** – *Space Heating Boilers.* The evaluation team found several sites with multiple boilers operating in lead/lag sequencing. In these cases, boiler operators said that the lag boiler typically only operates under the coldest weather conditions. We were unable to collect specific runtimes or load of boilers, but we believe it likely that the lag boiler will operate much less than the measure savings assume. Measure savings are currently for a single boiler providing the entire load.
  - **Recommendation** – Measure savings should be adjusted to assume that most sites with mutiple boilers will operate with lead/lag sequencing and the lag boiler load will be signficantly less than the lead load. Measure savings documentation should be updated to transpartenly communicate the basic assumptions and structure used to estimate measure savings.
- **Finding** – *Space Heating Boilers.* DNV GL found a number of boilers are providing functions other than space heating. The measure savings documentation assumes that boilers provide space heating only.

- **Recommendation** – Consider identifying and developing savings estimates for non-space-heating uses or adjust the program design for non-space-heating boiler applications to improve the accuracy of savings estimation.

- **Finding** – *Space Heating Boilers.* DNV GL found boilers operating in conditions that made it unlikely that they operate in condensing mode. Operating outside the condensing zone reduces the operational efficiency of the installed boiler and reduces savings.
  - **Recommendation** – The program could require sites to demonstrate that boilers will operate in condensing mode based on loading and estimated setpoints on the application. Any verification activities completed on boiler installations should include a review of the operating setpoints.

0.6.4 Custom recommendations

Overall, the evaluation found the custom project models developed by the program to be robust. DNV GL identified the following opportunities for improvement in model development that should increase the accuracy of individual project estimates.

- **Finding** – Evaluating savings based on Trane Trace simulation models continues to be more challenging than other methodologies. There were multiple cases for which the evaluation could not replicate the savings estimates using the models provided.
  - **Recommendation** – Energy Trust should require the PMC to keep the final models within their database and a record of the software version used to estimate final savings. This should save the time and budget needed to identify and locate the final models used for the project.
- **Finding** – Program models continue to estimate savings that suggest a significant reduction in annual consumption. In some cases, the savings were found to exist. In other cases, the savings did not materialize.
  - **Recommendation** – Energy Trust should complete additional review of simulation inputs for sites expecting savings greater than 20% of consumption.

0.6.5 Strategic Energy Management recommendations

- **Finding –** The site specific realization rate for eight gas sites is below 20%. Six of these sites achieved a site realization rate of 0%. These results are the primary driver of the 66% gas realization rate for this track. These sites did not have capital project adjustments and only one has a baseline/other adjustment. In most cases, these sites are achieving cumulative savings over the baseline, but no incremental savings were achieved in program year 2017. DNV GL believes cases like this will continue to exist until all sites have baseline models meeting the current guidelines.
  - **Recommendation** – DNV GL recommends that Energy Trust continue its efforts to re-baseline continuation participants with average mean temperature baselines. Reducing differences in the baseline modelling approach will reduce this variance in continuation participants.
  - **Recommendation** – DNV GL also recommends that Energy Trust consider not claiming continuation savings that are a small percent (less than 2%) of total consumption for participants in their 3rd year or later if the baseline model does not meet the current guidelines. Based on this evaluation, the degree-day baseline modelling approach is more likely to not support the savings claim than to support the claim.
- **Finding** – Participants continue to value energy coaches and peer-to-peer learning. Participants cite benefits from the insights provided by working closely with energy coaches to identify and execute

operational and capital improvement opportunities. Participants also commented on perceiving value from the peer-to-peer information exchanges with participants of a similar facility type. These learning exchanges provide participants with practical 'case study' examples to draw upon, as well as benchmarking and competitive motivation across organizations with similar facilities.

- **Recommendation** – DNV GL recommends that Energy Trust continue to identify program improvements that allow energy coaches to spend more time working with participant staff to support energy conservation opportunities.

Memo

To: Board of Directors

From: Jay Olson, Sr. Program Manager – Commercial
Kathleen Belkhayat, Program Manager – Commercial
Sarah Castor, Evaluation Sr. Project Manager

cc:

Date: September 19, 2019

Re: Staff Response to the Impact Evaluation of the 2017 Existing Buildings Program

The 2017 Existing Buildings program impact evaluation confirmed that the program is doing a good job of estimating electric and gas savings from capital measures, with savings realization rates of 95% and 90%, respectively. This finding is important given that the program has been increasing its activity and savings steadily since 2013.

The impact evaluation included the program's four tracks: custom, lighting, standard and Strategic Energy Management (SEM). The SEM portion of the 2017 impact evaluation included SEM continuation participants only, those participants that were in their second or later year of engagement in SEM, and demonstrated a good realization rate for electric savings (92%) and a lower gas realization rate than expected or found in recent program years (66%). A key factor in the SEM gas realization rate was the fact that many of the savings models used for participating sites were out of date and do not conform to current Energy Trust guidelines for modeling energy savings. For the past two years, the Existing Buildings program has been replacing older savings models with new ones that conform to program guidelines, which should help improve savings estimation. A review of SEM projects for the 2018 Existing Buildings impact evaluation, currently in progress, revealed that 65% of projects had models less than a year old and these new models account for more than 70% of the electric and gas savings claimed by SEM in 2018.

Energy Trust is committed to regularly updating the savings estimates and documentation for its standard measures, as recommended by the evaluator. In 2019, Existing Buildings program staff updated standard measures for boilers and boiler burners, grocery refrigeration, and various lighting technologies, in additional to many other measures. The updates will take effect with the 2020 program year and address many of the suggestions made by the evaluator with respect to these measures.

Interviews with participants who installed tube light-emitting diodes (TLEDs) in 2017 confirm the findings from a similar investigation in the 2015-2016 program year evaluation: TLED participants are satisfied with the performance of their lighting and have experienced almost no issues with the technology. This finding is reassuring given the rapid growth in the installation of TLEDs over the last four years, and Energy Trust does not see a need to continue to collect in-depth information on satisfaction with TLEDs in future impact evaluations.

Tab 8

Notes on October 2019 Financial Statements

November 21, 2019

Revenue

Revenue is 2% of budgeted amounts. We remain ahead of budget primarily because we have received more PGE 838 funding than we expected.

	YTD Actual	YTD Budget	YTD Var	YTD %	PY
PGE Efficiency	71,044,205	68,769,854	2,274,352	3%	81,379,124
PGE Renewables	7,372,194	7,430,567	(58,373)	-1%	7,293,140
PAC Efficiency	46,028,551	46,153,255	(124,704)	0%	46,633,915
PAC Renewables	5,214,233	5,457,359	(243,127)	-4%	5,361,521
NWN	23,648,435	23,726,536	(78,101)	0%	19,113,343
CNG	2,643,988	2,149,244	494,744	23%	1,885,480
Avista	1,743,225	1,743,225	-	0%	1,096,393
Community Solar Revenue	210,574	267,217	(56,643)	-21%	
Grant Revenue	38,169		38,169	0%	76,636
Investment Income	1,372,933	500,000	872,933	175%	825,328
Total	159,316,507	156,197,257	3,119,249	2%	163,664,879

Reserves

Reserve levels decreased $0.9 million over the prior month. We have about $5.2 million more in reserves than we did last year at this time. Community Solar is modestly accumulating net assets, which may be utilized by the program for unforeseen costs or released for other purposes.

In the remaining quarter of the year expenditure activity peaks, which is projected to bring reserve balances down below 2018 levels overall.

In the table below, we show an estimate of the interest attribution that will be made at year end. The 12/31/19 forecast balances include the estimated attributed interest.

	12/31/19 Forecast	10/31/19 current	12/31/18 Year End	10/31/18 one year ago	2019 Interest
PGE	19,039,427	34,849,143	22,328,018	32,962,028	509,733
PacifiCorp	8,940,974	15,686,210	9,319,633	16,520,744	225,009
NW Natural	3,040,776	5,268,811	3,591,597	6,369,698	81,725
Cascade	908,562	1,029,301	373,597	952,860	15,799
Avista	40,492	371,685	(45,817)	123,827	(66)
NWN Industrial	779,497	2,644,621	772,993	1,518,436	19,130
NWN Washington	234,448	1,230,489	501,071	1,082,226	9,063
PGE Renewables	12,281,987	12,156,753	9,510,800	9,048,227	268,532
PAC Renewables	6,172,229	6,791,196	6,490,682	7,141,578	156,033
Program Reserves	51,438,393	80,028,209	52,842,574	75,719,603	1,284,958
Other Reserves	19,188	18,645	24,897	26,155	543
Community Solar Reserves	159,069	82,033	-		1,960
Program Loans	1,800,000	1,800,000	1,800,000	1,800,000	
Emergency Reserve	5,000,000	5,000,000	5,000,000	5,000,000	124,758
Contingency Available	3,340,339	4,510,234	3,137,301	3,666,637	78,280
Total	61,756,977	91,439,109	62,804,754	86,212,398	1,490,499

Contingent Liabilities

Energy Trust commits program reserves and expected revenue to fund future efficiency and renewable projects and other agreements. Each of these commitments is contingent on the project being completed according to the milestones established in the agreement. Once a project is complete, the commitment becomes a liability and is paid as quickly as possible from the then-available program reserves.

Current reserves plus future revenue ensure funds are available when commitments come due. Controls prevent over-committing against future revenue.

Contingent liabilities as of October 31, 2019 are as follows:

Efficiency Incentive commitments to be paid in the future	88,600,000
Renewables Incentive commitments to be paid in the future	12,300,000
In-force contracts for delivery and operations, to be paid in the future	28,700,000
Total contingent liabilities for future commitments	129,600,000

OPUC Financial Performance Measures

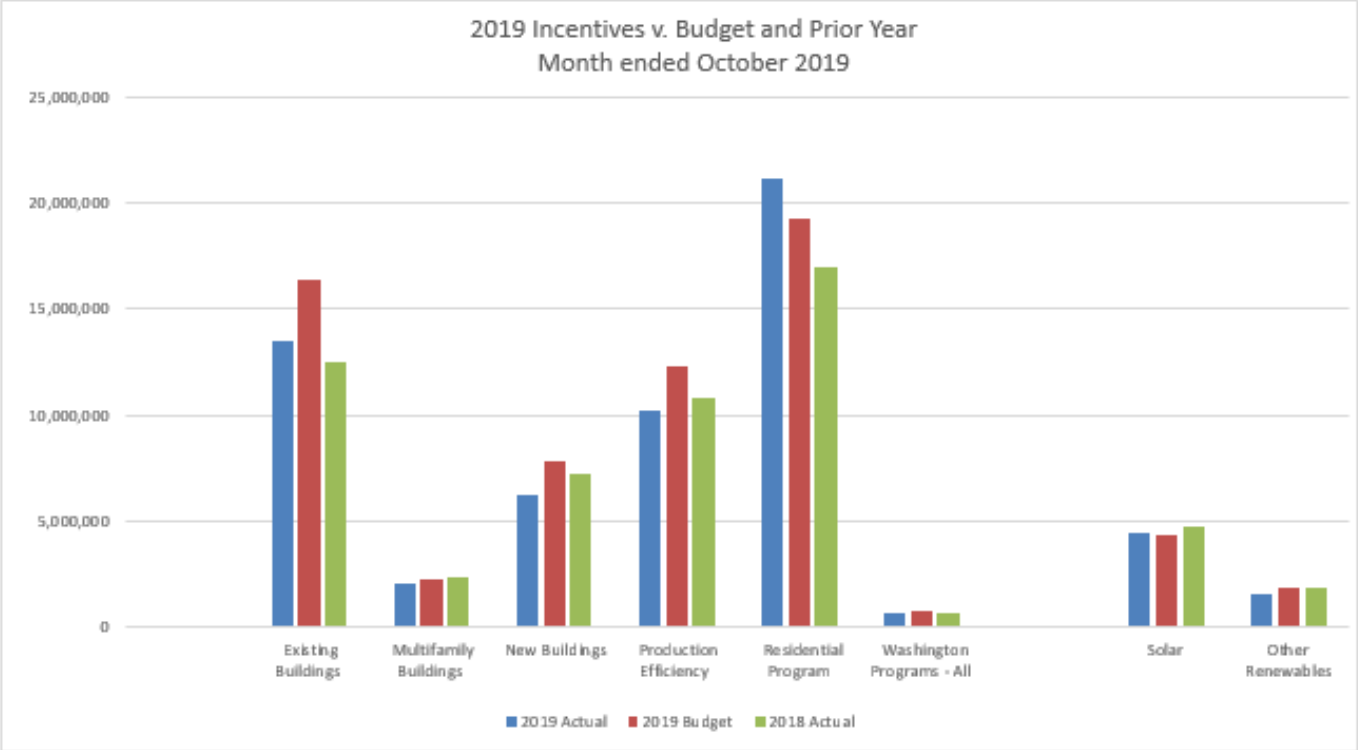
The two OPUC financial performance measures deal with administrative and program support (as defined by OPUC) and staffing cost (Employee Salaries and Fringe Benefits). We are operating well within the two measures.

Administrative and Program Support	less than 8% of revenue	6.2%	✓
	less than 10% increase over prior year	6%	✓
Employee Salaries and Fringe	less than 10% increase over prior year	4%	✓

Details	YTD 2019	YTD 2018	Y/Y Change
Revenue	155,463,910	160,334,104	
Administrative and Program Support	9,576,302	9,008,077	6%
Percent of Revenue	6.2%	5.6%	
Employee Salaries and Fringe Benefits	11,360,694	10,934,441	4%

Expenses

Total year-to-date spending at the end of October is about $11.4 million (8%) below budget. YTD incentives remain at $5.2 million below budget. Incentives are $1.2 million above last year at this time.

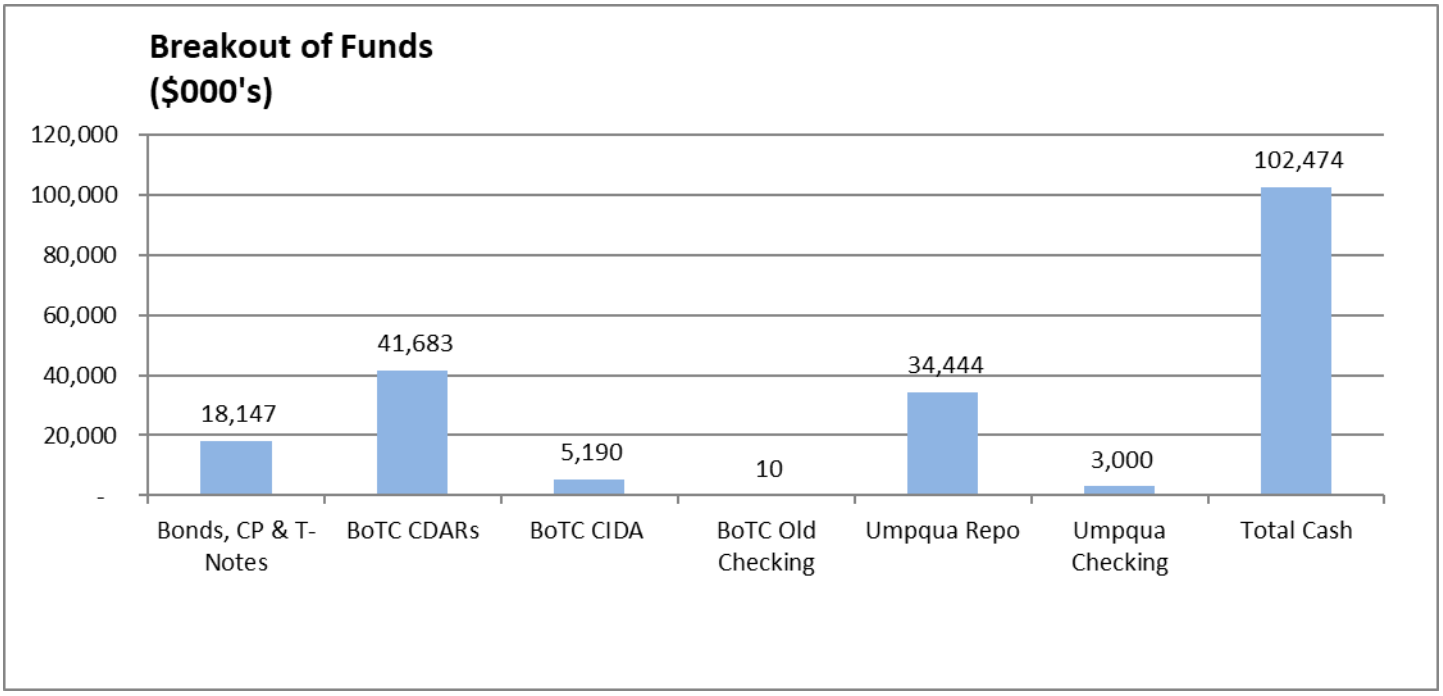


Total Incentives
Year-to-Date 2019

	2019 Actual	2019 Budget	2018 Actual
Existing Buildings	13,486,121	16,382,064	12,478,744
Multifamily Buildings	2,018,087	2,252,758	2,383,003
New Buildings	6,209,394	7,785,124	7,272,294
Production Efficiency	10,232,474	12,319,080	10,854,630
Residential Program	21,207,785	19,301,751	16,995,335
Washington Programs - All	625,545	726,101	688,533
Solar	4,453,577	4,347,371	4,758,909
Other Renewables	1,580,798	1,807,683	1,829,720
Total Incentives	59,813,782	64,921,932	57,261,168
Energy Efficiency Only	**53,779,406**	**58,766,878**	**50,672,539**

Investment Status

The graphs below show the types of investments we hold and the locations where our funds are held. Cash levels increased slightly. Our investments are primarily in CDARs (a bundle of FDIC insured CDs) with maturities of 13 weeks. We are expecting that we can continue rolling them over until year-end. Our yield dropped slightly because CDAR rates declined by 0.2% (from 2% to 1.8%).



Average Days to Maturity:	29
Average Portfolio Yield:	1.55%

PINK PAPER

Energy Trust of Oregon
BALANCE SHEET
October 31, 2019
(Unaudited)

	Oct 2019	Sep 2019	DEC 2018	Oct 2018	Change from one month ago	Change from Beg. of Year	Change from one year ago
Current Assets							
Cash & Cash Equivalents	42,655,735	34,140,961	53,104,536	35,958,523	8,514,775	(10,448,801)	6,697,212
Investments	59,768,628	65,703,843	38,440,394	58,536,874	(5,935,215)	21,328,234	1,231,754
Receivables	277,343	255,984	78,531	88,275	21,358	198,812	189,068
Prepaid Expenses	551,177	665,800	222,217	366,876	(114,623)	328,960	184,301
Advances to Vendors	1,639,433	2,459,149	2,238,777	1,468,528	(819,716)	(599,344)	170,904
Total Current Assets	**104,892,316**	**103,225,737**	**94,084,454**	**96,419,077**	**1,666,579**	**10,807,862**	**8,473,239**
Fixed Assets							
Computer Hardware and Software	3,925,582	3,875,285	3,869,226	3,934,165	50,297	56,356	(8,583)
Software Development in Progress	198,760		0	0	198,760	198,760	198,760
Leasehold Improvements	617,915	617,915	615,557	605,621	0	2,358	12,294
Office Equipment and Furniture	803,782	803,782	831,612	819,795	0	(27,830)	(16,013)
Total Fixed Assets	**5,546,039**	**5,296,982**	**5,316,395**	**5,359,581**	**249,057**	**229,644**	**186,458**
Less Depreciation	(4,778,453)	(4,760,635)	(4,658,292)	(4,796,909)	(17,819)	(120,161)	18,455
Net Fixed Assets	**767,586**	**536,347**	**658,103**	**562,672**	**231,239**	**109,483**	**204,914**
Other Assets							
Deposits	267,559	258,653	258,653	258,653	8,906	8,906	8,906
Deferred Compensation Asset	987,448	984,488	967,280	987,596	2,960	20,168	(148)
Note Receivable, net of allowance	763,669	763,669	430,669	430,669	0	333,000	333,000
Total Other Assets	**2,018,676**	**2,006,811**	**1,656,602**	**1,676,919**	**11,866**	**362,074**	**341,758**
Total Assets	**107,678,578**	**105,768,895**	**96,399,160**	**98,658,668**	**1,909,683**	**11,279,418**	**9,019,910**
Current Liabilities							
Accounts Payable and Accruals	12,868,838	10,218,338	30,565,097	9,387,062	2,650,500	(17,696,259)	3,481,776
Salaries, Taxes, & Benefits Payable	978,848	800,198	931,049	964,479	178,650	47,799	14,369
Total Current Liabilities	**13,847,686**	**11,018,535**	**31,496,146**	**10,351,541**	**2,829,150**	**(17,648,460)**	**3,496,145**
Long Term Liabilities							
Deferred Rent	1,397,749	1,408,743	1,133,461	1,111,269	(10,995)	264,287	286,480
Deferred Compensation Payable	982,732	979,772	962,564	981,215	2,960	20,168	1,518
Other Long-Term Liabilities	11,310	20,325	2,235	2,235	(9,015)	9,075	9,075
Total Long-Term Liabilities	**2,391,791**	**2,408,840**	**2,098,260**	**2,094,719**	**(17,049)**	**293,531**	**297,072**
Total Liabilities	**16,239,477**	**13,427,376**	**33,594,406**	**12,446,260**	**2,812,101**	**(17,354,930)**	**3,793,217**
Net Assets							
Unrestricted Net Assets	91,439,101	92,341,519	62,804,754	86,212,408	(902,418)	28,634,347	5,226,693
Total Net Assets	**91,439,101**	**92,341,519**	**62,804,754**	**86,212,408**	**(902,418)**	**28,634,347**	**5,226,693**

Energy Trust of Oregon
Cash Flow Statement-Indirect Method
Monthly 2019

	January	February	March	April	May	June	July	August	September	October	Year to Date
Operating Activities:											
Revenue less Expenses	$ 12,037,369	$ 8,616,210	$ 6,368,168	$ 6,175,429	$ (955,899)	$ (3,352,949)	$ 3,003,837	$ (1,636,018)	$ (719,381)	$ (902,418)	$ 28,634,347
Non-cash items:											
Depreciation	21,164	20,911	16,739	16,463	16,463	20,944	16,463	16,463	16,422	17,819	179,850
Change in Reserve on Long Term Note											-
(Gain) Loss on disposal of assets		(17,265)						1,150			(16,116)
Receivables	(690)	4,224	(46,689)	(30,886)	9,957	(12,946)	5,568	2,732	(39,570)	(13,369)	(121,668)
Interest Receivable	6,540	(27,555)	(74,445)	10,719	39,996	(19,852)	29,148	(38,852)	5,148	(7,990)	(77,143)
Advances to Vendors	746,259	746,259	(1,556,553)	767,604	767,604	(1,840,321)	869,308	869,308	(1,589,841)	819,716	599,344
Prepaid expenses and other costs	(707,517)	60,974	(345,625)	281,664	85,380	(102,955)	(81,250)	89,481	(73,944)	102,757	(691,035)
Accounts payable	(18,806,695)	(713,165)	(705,741)	(1,416,005)	(2,276,491)	4,497,952	(5,522,131)	1,900,930	3,494,776	2,829,149	(16,717,421)
Payroll and related accruals	(212,773)	57,285	118,962	17,034	158,606	(10,470)	63,753	(324,754)	(761,159)	(6,054)	(899,570)
Deferred rent and other	10,100	10,100	10,099	10,100	10,940	10,100	71,561	71,561	68,486	(10,995)	262,053
Cash rec'd from / (used in) Operating Activities	(6,906,243)	8,757,978	3,784,915	5,832,122	(2,143,442)	(810,497)	(1,543,742)	952,000	400,937	2,828,616	11,152,644
Investing Activities:											
Investment Activity (1)	(2,035,756)	(4,000,472)	(9,238,890)	(5,568,183)	(7,087,432)	(2,087,422)	2,922,783	(96,506)	(71,571)	5,935,215	(21,328,234)
(Acquisition)/Disposal of Capital Assets	20	(5,929)	(1,963)						(16,279)	(249,057)	(273,208)
Cash rec'd from / (used in) Investing Activities	(2,035,736)	(4,006,401)	(9,240,853)	(5,568,183)	(7,087,432)	(2,087,422)	2,922,783	(96,506)	(87,850)	5,686,158	(21,601,442)
Cash at beginning of Period	53,104,536	44,162,558	48,914,136	43,458,198	43,722,137	34,491,263	31,593,346	32,972,380	33,827,873	34,140,961	53,104,536
Increase/(Decrease) in Cash	(8,941,979)	4,751,577	(5,455,938)	263,939	(9,230,874)	(2,897,919)	1,379,041	855,494	313,087	8,514,774	(10,448,803)
Cash at end of period	$ 44,162,558	$ 48,914,136	$ 43,458,198	$ 43,722,137	$ 34,491,263	$ 31,593,346	$ 32,972,386	$ 33,827,873	$ 34,140,961	$ 42,655,735	$ 42,655,735

(1) As investments mature, they are rolled into the Repo account.
Investments that are made during the Six Months reduce available cash.

Energy Trust of Oregon
Cash Flow Projection
January 2019 - December 2020

	Actual										Budget	
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Cash In:												
Public purpose and Incr funding	19,862,886	20,022,600	18,823,067	17,904,001	14,136,700	12,284,057	13,319,944	12,606,537	13,210,998	15,524,041	11,999,827	14,395,945
Investment Income	116,780	75,970	54,380	141,560	196,541	148,455	169,273	123,334	144,550	124,947	-	-
From Other Sources	(690)	14,377	(24,879)	699	34,935	12,260	45,929	23,326	(948)	22,065	22,257	22,257
Total cash in	19,978,976	20,112,947	18,852,568	18,046,260	14,368,176	12,444,772	13,535,145	12,753,198	13,354,600	15,671,054	12,022,084	14,418,202
Cash Out:	(26,885,198)	(11,360,899)	(15,069,615)	(12,214,140)	(16,511,621)	(13,255,269)	(15,078,887)	(11,801,206)	(12,969,941)	(13,091,495)	(19,824,275)	(26,175,651)
Net cash flow	(6,906,222)	8,752,048	3,782,953	5,832,120	(2,143,445)	(810,497)	(1,543,742)	951,991	384,659	2,579,559	(7,802,191)	(11,757,448)
Cash Flow from/to Investments	(2,035,756)	(4,000,472)	(9,238,890)	(5,568,183)	(7,087,432)	(2,087,422)	2,922,783	(96,506)	(71,571)	5,935,215		5,000,000
Beginning Balance: Cash & MM	53,104,536	44,162,559	48,914,137	43,458,200	43,722,137	34,491,263	31,593,346	32,972,386	33,827,873	34,140,961	42,655,735	34,853,544
Ending cash & MM	**44,162,559**	**48,914,136**	**43,458,198**	**43,722,137**	**34,491,263**	**31,593,346**	**32,972,386**	**33,827,873**	**34,140,961**	**42,655,735**	**34,853,544**	**28,096,095**
Future Commitments												
Renewable Incentives	10,100,000	10,400,000	10,300,000	10,500,000	11,000,000	10,000,000	11,700,000	11,800,000	12,300,000	11,300,000	11,000,000	10,800,000
Efficiency Incentives	77,500,000	79,500,000	79,800,000	80,000,000	85,600,000	86,300,000	86,500,000	86,500,000	88,600,000	89,600,000	90,200,000	97,900,000
Emergency Contingency Pool	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
Total Commitments	92,600,000	94,900,000	95,100,000	95,500,000	101,600,000	101,300,000	103,200,000	103,300,000	105,900,000	105,900,000	106,200,000	113,700,000

Dedicated funds adjustment: reduction in available cash for commitments to Renewable program projects with board approval, or when board approval not required, with signed agreements
Committed funds adjustment: reduction in available cash for commitments to Efficiency program projects with signed agreements
Cash reserve: reduction in available cash to cover cashflow variability and winter revenue risk
Escrow: dedicated funds set aside in separate bank accounts

Energy Trust of Oregon
Cash Flow Projection
January 2019 - December 2020

	2020 R2 Projection											
	January	**February**	**March**	**April**	**May**	**June**	**August**	**October**	**October**	**October**	**November**	**December**
Cash In:												
Public purpose and Incr funding	18,064,283	22,460,282	17,528,184	17,103,269	15,068,412	14,477,318	12,206,703	12,954,548	13,515,339	15,190,343	12,822,199	15,481,895
Investment Income	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
From Other Sources	43,923	43,923	45,905	45,905	45,905	45,905	45,905	45,905	45,905	45,905	45,905	45,905
Total cash in	18,114,283	22,510,282	17,578,184	17,153,269	15,118,412	14,527,318	12,256,703	13,004,548	13,565,339	15,240,343	12,872,199	15,531,895
Cash Out:	(31,184,436)	(9,939,194)	(12,023,319)	(12,490,189)	(13,084,084)	(14,187,697)	(14,848,233)	(13,251,158)	(13,890,535)	(14,869,489)	(15,544,853)	(18,680,168)
Net cash flow	(13,070,154)	12,571,088	5,554,865	4,663,080	2,034,328	339,622	(2,591,530)	(246,610)	(325,196)	370,854	(2,672,654)	(3,148,273)
Cash Flow from/to Investments	12,500,000		-	-	-	-	-	-	-	-	-	-
Beginning Balance: Cash & MM	28,096,095	27,525,942	40,097,030	45,651,895	50,314,975	52,349,302	52,688,924	50,097,394	49,850,784	49,525,588	49,896,442	47,223,788
Ending cash & MM	**27,525,942**	**40,097,030**	**45,651,895**	**50,314,975**	**52,349,302**	**52,688,924**	**50,097,394**	**49,850,784**	**49,525,588**	**49,896,442**	**47,223,788**	**44,075,515**
Future Commitments												
Renewable Incentives	10,800,000	11,200,000	11,400,000	11,400,000	11,400,000	11,400,000	11,400,000	11,400,000	11,400,000	11,400,000	11,400,000	11,400,000
Efficiency Incentives	97,900,000	97,600,000	97,000,000	97,300,000	97,600,000	98,300,000	98,300,000	98,500,000	98,600,000	98,800,000	99,100,000	99,400,000
Emergency Contingency Pool	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
Total Commitments	113,700,000	113,800,000	113,400,000	113,700,000	114,000,000	114,700,000	114,700,000	114,900,000	115,000,000	115,200,000	115,500,000	115,800,000

Dedicated funds adjustment: reduction in available cash for commitments to Renewable program projects with board approval, or when board approval not required, with signed agreements
Committed funds adjustment: reduction in available cash for commitments to Efficiency program projects with signed agreements
Cash reserve: reduction in available cash to cover cashflow variability and winter revenue risk
Escrow: dedicated funds set aside in separate bank accounts

Energy Trust of Oregon
Income Statement - Actual and YTD Budget Comparison
For the Ten Months Ending October 31, 2019
(Unaudited)

	October				YTD			
	Actual	**Budget**	**Budget Variance**	**Variance %**	**Actual**	**Budget**	**Budget Variance**	**Variance %**
OREGON PPC REVENUE								
Public Purpose Funds-PGE	3,203,573	3,308,050	(104,477)	-3%	33,019,853	33,328,941	(309,087)	-1%
Incremental Funds - PGE	4,074,113	4,027,067	47,046	1%	45,396,546	42,871,480	2,525,066	6%
Public Purpose Funds-PacifiCorp	2,215,629	2,378,355	(162,726)	-7%	23,515,498	24,492,683	(977,185)	-4%
Incremental Funds - PacifiCorp	2,597,051	2,269,591	327,460	14%	27,727,285	27,117,931	609,354	2%
Public Purpose Funds-NW Natural	685,621	676,244	9,376	1%	17,647,856	17,762,607	(114,751)	-1%
NW Natural - DSM	1,500,000	1,500,000	-	-	3,769,658	3,769,769	(111.00)	0%
Public Purpose Funds-Cascade	142,810	87,859	54,951	63%	2,643,988	2,149,244	494,744	23%
Public Purpose Funds-Avista	174,323	174,323	-	-	1,743,225	1,743,225	-	0%
Total Oregon PPC Revenue	**14,593,120**	**14,421,489**	**171,631**	**1%**	**155,463,910**	**153,235,880**	**2,228,029**	**1%**
NW Natural - Washington	930,921	694,160	236,761	-	2,230,921	2,194,160	36,761	2%
Grant Revenue	-	-	-	-	38,169	-	38,169	-
Community Solar Revenue	35,434	33,402	2,032	6%	210,574	267,217	(56,643)	-21%
Revenue from Investments	132,937	50,000	82,937	166%	1,372,933	500,000	872,933	0%
Total Other Sources of Revenue	**1,099,292**	**777,562**	**321,730**	**41%**	**3,852,597**	**2,961,377**	**891,220**	**30%**
TOTAL REVENUE	**15,692,412**	**15,199,051**	**493,361**	**3%**	**159,316,507**	**156,197,257**	**3,119,249**	**2%**
EXPENSES								
Incentives	8,981,416	8,874,467	(106,949)	-1%	59,813,782	64,921,932	5,108,150	8%
Program Delivery Subcontracts	5,351,553	5,248,707	(102,846)	-2%	49,815,477	51,515,030	1,699,553	3%
Employee Salaries & Fringe Benefits	1,242,838	1,223,819	(19,019)	-2%	11,729,615	12,098,965	369,350	3%
Agency Contractor Services	188,530	155,089	(33,442)	-22%	1,237,472	1,617,787	380,315	24%
Planning and Evaluation Services	178,262	308,573	130,311	42%	1,800,183	3,085,727	1,285,543	42%
Advertising and Marketing Services	234,571	264,708	30,138	11%	2,085,022	2,666,033	581,011	22%
Other Professional Services	211,970	399,772	187,803	47%	2,319,041	3,944,245	1,625,203	41%
Travel, Meetings, Trainings & Conferences	39,691	38,381	(1,310)	-3%	308,808	393,848	85,040	22%
Dues, Licenses and Fees	20,440	14,292	(6,148)	-43%	165,402	188,676	23,274	12%
Software and Hardware	27,747	43,255	15,508	36%	291,822	440,480	148,658	34%
Depreciation & Amortization	17,819	25,602	7,784	30%	179,850	216,319	36,468	17%
Office Rent and Equipment	90,432	88,328	(2,104)	-2%	840,513	883,278	42,765	5%
Materials Postage and Telephone	9,531	12,079	2,548	21%	88,707	113,292	24,585	22%
Miscellaneous Expenses	32	250	218	87%	6,465	4,000	(2,465)	-62%
TOTAL EXPENSES	**16,594,830**	**16,697,321**	**102,491**	**1%**	**130,682,159**	**142,089,611**	**11,407,451**	**8%**
TOTAL REVENUE LESS EXPENSES	**(902,418)**	**(1,498,270)**	**595,852**	**40%**	**28,634,347**	**14,107,647**	**14,526,700**	**103%**

Energy Trust of Oregon
Income Statement - Actual and Prior Yr Comparison
For the Ten Months Ending October 31, 2019
(Unaudited)

	October				YTD			
	Actual	Actual Prior Year	Prior Year Variance	Variance %	Actual	Actual Prior Year	Prior Year Variance	Variance %
OREGON PPC REVENUE								
Public Purpose Funds-PGE	3,203,573	3,272,567	(68,993)	-2%	33,019,853	32,577,909	441,945	1%
Incremental Funds - PGE	4,074,113	5,207,565	(1,133,451)	-22%	45,396,546	56,094,355	(10,697,809)	-19%
Public Purpose Funds-PacifiCorp	2,215,629	2,290,549	(74,920)	-3%	23,515,498	24,083,302	(567,803)	-2%
Incremental Funds - PacifiCorp	2,597,051	2,550,250	46,801	2%	27,727,285	27,912,134	(184,849)	-1%
Public Purpose Funds-NW Natural	685,621	652,627	32,994	5%	17,647,856	16,164,507	1,483,350	9%
NW Natural - DSM	1,500,000	520,024	979,976	-	3,769,658	520,024	3,249,634	
Public Purpose Funds-Cascade	142,810	88,488	54,322	61%	2,643,988	1,885,480	758,507	40%
Public Purpose Funds-Avista	174,323	114,370	59,952	52%	1,743,225	1,096,393	646,832	59%
Total Oregon PPC Revenue	**14,593,120**	**14,696,440**	**(103,320)**	**-1%**	**155,463,910**	**160,334,103**	**(4,870,194)**	**-3%**
NW Natural - Washington	930,921	822,690	108,231	13%	2,230,921	2,428,812	(197,891)	-8%
Grant Revenue		7,864	(7,864)	-	38,169	76,636	(38,467)	-50%
Community Solar Revenue	35,434		35,434	-	210,574		210,574	
Revenue from Investments	132,937	118,385	14,552	12%	1,372,933	825,328	547,605	66%
Total Other Sources of Revenue	**1,099,292**	**948,939**	**150,353**	**16%**	**3,852,597**	**3,330,775**	**521,822**	**16%**
TOTAL REVENUE	**15,692,412**	**15,645,379**	**47,033**	**0%**	**159,316,507**	**163,664,879**	**(4,348,372)**	**-3%**
EXPENSES								
Incentives	8,981,416	7,580,521	(1,400,895)	-18%	59,813,782	57,261,168	(2,552,614)	-4%
Program Delivery Subcontracts	5,351,553	4,831,502	(520,051)	-11%	49,815,477	48,052,116	(1,763,361)	-4%
Employee Salaries & Fringe Benefits	1,242,838	1,190,442	(52,396)	-4%	11,729,615	11,197,630	(531,985)	-5%
Agency Contractor Services	188,530	110,867	(77,663)	-70%	1,237,472	1,076,639	(160,833)	-15%
Planning and Evaluation Services	178,262	368,293	190,031	52%	1,800,183	2,124,484	324,301	15%
Advertising and Marketing Services	234,571	137,693	(96,878)	-70%	2,085,022	2,083,771	(1,251)	0%
Other Professional Services	211,970	167,937	(44,033)	-26%	2,319,041	1,718,611	(600,430)	-35%
Travel, Meetings, Trainings & Conferences	39,691	33,041	(6,650)	-20%	308,808	315,030	6,223	2%
Dues, Licenses and Fees	20,440	6,906	(13,534)	-196%	165,402	117,078	(48,324)	-41%
Software and Hardware	27,747	40,948	13,202	32%	291,822	323,524	31,702	10%
Depreciation & Amortization	17,819	22,937	5,119	22%	179,850	354,488	174,638	49%
Office Rent and Equipment	90,432	84,188	(6,243)	-7%	840,513	862,099	21,586	3%
Materials Postage and Telephone	9,531	11,256	1,726	15%	88,707	93,315	4,608	5%
Miscellaneous Expenses	32	533	501	0%	6,465	5,142	(1,323)	-26%
TOTAL EXPENSES	**16,594,830**	**14,587,065**	**(2,007,765)**	**-14%**	**130,682,159**	**125,585,095**	**(5,097,064)**	**-4%**
TOTAL REVENUE LESS EXPENSES	**(902,418)**	**1,058,314**	**(1,960,732)**	**-185%**	**28,634,347**	**38,079,784**	**(9,445,437)**	**-25%**

Energy Trust of Oregon
Statement of Functional Expenses
For the Ten Months Ending October 31, 2019
(Unaudited)

	Energy Efficiency Total	Washington	Renewable Energy	Low and Moderate Income Solar Grant	Community Solar Operations	**Total Programs**	Management and General	Communications and Customer Service	Fund Development	**Supporting Centers**	TOTAL
Incentives	$53,153,861	$625,545	$6,034,376			$59,813,782				$0	$59,813,782
Program Delivery Subcontracts	49,038,938	522,032	254,507			49,815,477				0	49,815,477
Employee Salaries & Fringe Benefits	5,763,859	196,854	1,229,687	4,852	104,741	7,299,993	2,461,603	1,961,768	6,252	4,429,623	11,729,616
Agency Contractor Services	542,868	6,173	176,311	30,566	2,462	758,380	388,104	90,989		479,093	1,237,473
Planning and Evaluation Services	1,757,573	6,715	43,670			1,807,958	274	(8,050)		(7,776)	1,800,182
Advertising and Marketing Services	1,089,970	628	144,562			1,235,160		849,862		849,862	2,085,022
Other Professional Services	893,172	7,577	890,781	7	139	1,791,676	461,621	65,744		527,365	2,319,041
Travel, Meetings, Trainings&Conferences	121,279	4,006	31,614	8	273	157,180	85,448	66,179		151,627	308,807
Dues, Licenses and Fees	42,376	35,460	21,427	-	6	99,269	46,141	19,992		66,133	165,402
Software and Hardware	105,345	2,877	150,112	55	1,162	259,551	16,157	16,115		32,272	291,823
Depreciation & Amortization	97,274	2,682	21,024	76	1,775	122,831	30,150	26,869		57,019	179,850
Office Rent and Equipment	329,017	9,251	113,739	426	10,760	463,193	205,191	172,128		377,319	840,512
Materials Postage and Telephone	42,357	1,330	9,663	34	817	54,201	20,110	14,397		34,507	88,708
Miscellaneous Expenses	1,558	18	2,187	1	21	3,785	2,339	341		2,680	6,465
TOTAL FUNCTIONAL EXPENSE	**112,979,450**	**1,421,148**	**9,123,659**	**36,025**	**122,156**	**123,682,437**	**3,717,139**	**3,276,334**	**6,252**	**6,999,727**	**130,682,159**

Energy Trust of Oregon
Administrative and Program Support Subject to OPUC Performance Measure
For the Ten Months Ending October 31, 2019
(Unaudited)

	PUC Grant Funded Total	Program Costs	Administrative and Program Support
Incentives	59,188,237	59,188,237	-
Program Delivery Subcontracts	49,293,445	49,293,445	-
Employee Salaries & Fringe Benefits	11,360,694	5,676,763	5,683,930
Agency Contractor Services	1,192,181	467,489	724,694
Planning and Evaluation Services	1,793,567	1,801,245	(7,676)
Advertising and Marketing Services	2,073,597	1,234,532	839,065
Other Professional Services	2,304,614	1,769,680	534,932
Travel, Meetings, Trainings & Conferences	302,593		302,593
Dues, Licenses and Fees	129,095		129,095
Software and Hardware	287,318		287,318
Depreciation & Amortization	174,593		174,593
Office Rent and Equipment	815,280		815,280
Materials Postage and Telephone	86,088		86,088
Miscellaneous Expenses	6,390		6,390
TOTAL FUNCTIONAL EXPENSE	**129,007,695**	**119,431,391**	**9,576,302**
OPUC Grant / Utility Funded Revenue			155,463,910

Performance against OPUC Measure

Program support and administative cost may not exceed 8% of Revenue

Maximum allowed under the performance measure	8%	12,437,113
Actual program support and administrative cost	6.2%	9,576,302
Unspent below the maximum allowed		2,860,811

Energy Trust of Oregon
Program Expense by Service Territory
For the Ten Months Ending October 31, 2019
(Unaudited)

	PGE	Pacific Power	Subtotal Elec.	NWN Industrial	NW Natural Gas	Cascade	Avista	Subtotal Gas	Oregon Total	NWN WA	Solar LMI	Fund Development	Community Solar Operations	ETO Total	YTD Budget	Variance	% Var
Energy Efficiency																	
Commercial																	
Existing Buildings	$16,394,764	$10,011,797	$26,406,561	$512,171	$2,402,483	$593,360	$406,378	$3,914,392	$30,320,953	$532,765				$30,853,718	$36,680,714	$5,826,996	16%
Multifamily Buildings	4,399,976	1,493,859	5,893,835	7,369	931,641	19,324	111,447	1,069,782	6,963,617					6,963,617	7,822,672	859,055	11%
New Buildings	8,175,833	3,663,991	11,839,824	61,207	1,296,606	232,152	122,438	1,712,403	13,552,227					13,552,227	15,513,751	1,961,524	13%
NEEA	1,764,994	1,331,487	3,096,481		216,739	24,082		240,821	3,337,302					3,337,302	3,023,061	(314,241)	-10%
Total Commercial	**30,735,568**	**16,501,134**	**47,236,702**	**580,747**	**4,847,469**	**868,918**	**640,263**	**6,937,397**	**54,174,099**	**532,765**				**54,706,864**	**63,040,198**	**8,333,334**	**13%**
Industrial																	
Production Efficiency	11,868,087	10,903,630	22,771,717	1,317,280	300,973	176,093	25,814	1,820,159	24,591,876					24,591,876	27,333,410	2,741,534	10%
NEEA	59,689	45,029	104,718						104,718					104,718	113,059	8,341	7%
Total Industrial	**11,927,776**	**10,948,658**	**22,876,435**	**1,317,280**	**300,973**	**176,093**	**25,814**	**1,820,159**	**24,696,594**					**24,696,594**	**27,446,469**	**2,749,875**	**10%**
Residential																	
Residential Combined	14,174,389	10,940,780	25,115,169		9,964,067	847,925	659,647	11,471,639	36,586,808	968,741				37,555,549	37,279,540	(276,009)	-1%
NEEA	1,685,348	1,271,402	2,956,750		858,131	95,348		953,479	3,910,229					3,910,229	4,001,556	91,327	2%
Total Residential	**15,859,736**	**12,212,183**	**28,071,919**		**10,822,198**	**943,273**	**659,647**	**12,425,118**	**40,497,037**	**968,741**				**41,465,778**	**41,281,096**	**(184,682)**	**0%**
Energy Efficiency Program Costs	**58,523,080**	**39,661,974**	**98,185,052**	**1,898,030**	**15,970,642**	**1,988,284**	**1,325,723**	**21,182,678**	**119,367,735**	**1,501,503**				**120,869,238**	**131,767,763**	**10,898,527**	**8%**
Renewables																	
Solar Electric (Photovoltaic)	3,848,827	2,678,345	6,527,172						6,527,172					6,527,172	6,925,559	398,387	6%
Solar LMI											38,169			38,169			
Other Renewable	877,415	2,235,372	3,112,787						3,112,787					3,112,787	3,222,415	109,628	3%
Renewables Program Costs	**4,726,241**	**4,913,719**	**9,639,960**						**9,639,960**		**38,169**			**9,678,128**	**10,147,974**	**469,846**	**5%**
Cost Grand Total	**63,249,322**	**44,575,693**	**107,825,014**	**1,898,030**	**15,970,642**	**1,988,284**	**1,325,723**	**21,182,678**	**129,007,695**	**1,501,503**	**38,169**			**130,547,366**	**125,392,289**	**11,368,371**	**9%**
Community Solar Operations													128,541	128,541	173,873	45,332	26%
Fund Development												6,252		6,252		(6,252)	
Cost Grand Total	**63,249,322**	**44,575,693**	**107,825,012**	**1,898,030**	**15,970,642**	**1,988,284**	**1,325,723**	**21,182,678**	**129,007,695**	**1,501,503**	**38,169**	**6,252**	**128,541**	**130,682,159**	**142,089,611**	**11,407,450**	**8%**

ENERGY TRUST OF OREGON
Summary of All Units
For the Ten Months Ending October 31, 2019

	ENERGY EFFICIENCY							RENEWABLE ENERGY			OPUC Funded Programs
	PGE	PacifiCorp	NWN Industrial	NW Natural	Cascade	Avista	Total	PGE	PacifiCorp	Total	
REVENUES											
Public Purpose Funding	25,647,659	18,301,266		17,647,856	2,643,988	1,743,225	65,983,994	7,372,194	5,214,233	12,586,427	78,570,421
Incremental Funding	45,396,546	27,727,285	3,769,658				76,893,489				76,893,489
Grant Revenue											
Community Solar Revenue											
Revenue from Investments											
TOTAL PROGRAM REVENUE	**71,044,205**	**46,028,551**	**3,769,658**	**17,647,856**	**2,643,988**	**1,743,225**	**142,877,483**	**7,372,194**	**5,214,233**	**12,586,427**	**155,463,910**
EXPENSES											
Incentives	25,192,441	17,700,295	854,032	7,795,940	962,889	648,261	53,153,861	2,969,052	3,065,323	6,034,375	59,188,236
Program Delivery Subcontracts	25,046,732	16,218,002	760,180	5,780,801	748,888	484,335	49,038,938	151,435	103,072	254,507	49,293,445
Employee Salaries and Fringe Benefits	1,495,502	1,059,288	65,869	386,397	46,349	32,903	3,086,307	432,661	508,725	941,386	4,027,693
Agency Contractor Services	157,310	117,274	8,931	29,219	4,736	2,992	320,461	84,052	58,491	142,543	463,004
Planning and Evaluation Services	824,820	570,546	38,939	134,088	20,543	12,293	1,601,230	21,683	15,089	36,773	1,638,003
Advertising and Marketing Services	512,035	360,134	15,928	165,495	18,952	13,280	1,085,827	78,455	65,880	144,335	1,230,162
Other Professional Services	320,947	233,778	3,667	176,456	15,962	12,303	763,113	363,948	476,844	840,792	1,603,905
Travel, Meetings, Trainings and Conferences	30,689	23,921	1,454	9,943	1,132	751	67,891	14,179	11,819	25,997	93,888
Dues, Licenses and fees	7,470	4,545	244	1,151	247	158	13,814	11,502	8,400	19,902	33,716
Software and Hardware	-	-	-	-	-	-	-	79,106	55,049	134,155	134,155
Materials Postage and Telephone	912	838	101	23	14	2	1,890	47	14	60	1,950
Miscellaneous Expenses	351	271	0	247	21	16	906	1,157	805	1,962	2,868
Shared Office Space	183,619	131,149	8,440	46,408	5,584	3,947	379,144	60,349	70,718	131,067	510,211
Shared Information Technology	764,567	494,261	18,411	253,909	27,215	20,922	1,579,287	108,804	133,457	242,262	1,821,549
Customer Service Management	91,323	59,840	2,106	31,037	3,493	2,654	190,455	6,180	4,300	10,480	200,935
Trade Ally Management	78,401	56,276	301	47,063	4,119	3,311	189,469	54,779	38,120	92,899	282,368
Planning & Evaluation Management	683,943	508,938	17,848	257,753	21,730	16,645	1,506,857	35,683	34,481	70,164	1,577,021
TOTAL PROGRAM EXPENSES	**55,391,062**	**37,539,356**	**1,796,451**	**15,115,930**	**1,881,874**	**1,254,773**	**112,979,450**	**4,473,072**	**4,650,587**	**9,123,659**	**122,103,109**
ADMINISTRATIVE COSTS											
Management & General	1,664,716	1,128,205	53,991	454,293	56,558	37,711	3,395,472	134,552	139,851	274,404	3,669,876
Communications & Customer Svc	1,467,302	994,413	47,588	400,419	49,852	33,239	2,992,813	118,617	123,281	241,897	3,234,710
Total Administrative Costs	**3,132,018**	**2,122,618**	**101,579**	**854,712**	**106,410**	**70,950**	**6,388,285**	**253169**	**263132**	**516,301**	**6,904,586**
TOTAL PROG & ADMIN EXPENSES	**58,523,080**	**39,661,974**	**1,898,030**	**15,970,642**	**1,988,284**	**1,325,723**	**119,367,735**	**4,726,241**	**4,913,719**	**9,639,960**	**129,007,695**
TOTAL REVENUE LESS EXPENSES	**12,521,125**	**6,366,577**	**1,871,628**	**1,677,214**	**655,704**	**417,502**	**23,509,748**	**2,645,953**	**300,514**	**2,946,467**	**26,456,215**
NET ASSETS - RESERVES											
Rollforward from beginning of year											
Beginning Total Net Assets at 1/1/2019	22,328,018	9,319,633	772,993	3,591,597	373,597	(45,817)	36,340,021	9,510,800	6,490,682	16,001,482	52,341,503
Current Year Revenue Less Expenses	12,521,125	6,366,577	1,871,628	1,677,214	655,704	417,502	23,509,748	2,645,953	300,514	2,946,467	26,456,215
Attribution of Investment income this year (est)	521,099	227,897	31,147	80,752	12,786	2,970	876,651	197,473	121,048	318,521	1,195,172
Ending Net Assets	**35,370,242**	**15,914,107**	**2,675,768**	**5,349,563**	**1,042,087**	**374,655**	**60,726,420**	**12,354,226**	**6,912,244**	**19,266,470**	**79,992,890**
Net Assets Breakdown											
Efficiency Program Reserves by Utility	35,370,242	15,914,107	2,675,768	5,349,563	1,042,087	374,655	60,726,422				60,726,422
Renewable Reserves by Utility								12,354,226	6,912,244	19,266,470	19,266,470
Net Assets by Other Funding Source											
Net Assets Loaned through Craft3 Program											
Operational Contingency Reserve											
Emergency Contingency Reserve											
Ending Net Assets / Reserves	**35,370,242**	**15,914,107**	**2,675,768**	**5,349,563**	**1,042,087**	**374,655**	**60,726,420**	**12,354,226**	**6,912,244**	**19,266,470**	**79,992,890**

ENERGY TRUST OF OREGON
Summary of All Units
For the Ten Months Ending October 31, 2019

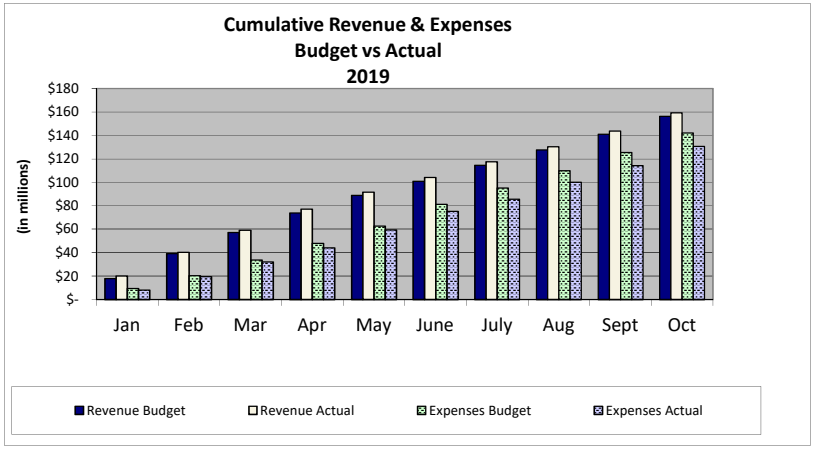
	NWN Washington	OTHER FUNDING SOURCES			Investment Income	TOTAL ORGANIZATION	Approved budget	Change	% Change
		Solar LMI	Fund Development	Community Solar					
REVENUES									
Public Purpose Funding						78,570,421	79,476,700	(906,279)	-1%
Incremental Funding	2,230,921					79,124,410	75,953,340	3,171,070	4%
Grant Revenue		38,169				38,169		38,169	
Community Solar Revenue				210,574		210,574	267,217	(56,643)	
Revenue from Investments					1,372,933	1,372,933	500,000	872,933	175%
TOTAL PROGRAM REVENUE	**2,230,921**	**38,169**	**-**	**210,574**	**1,372,933**	**159,316,507**	**156,197,257**	**3,119,250**	**2%**
EXPENSES									
Incentives	625,545	-	-	-	-	59,813,781	64,921,932	5,108,151	8%
Program Delivery Subcontracts	522,032	-	-	-	-	49,815,477	51,515,030	1,699,554	3%
Employee Salaries and Fringe Benefits	84,405	4,249.00	6,252	91,907	-	4,214,506	4,340,439	125,933	3%
Agency Contractor Services	-	30,450	-	-	-	493,454	718,619	225,166	31%
Planning and Evaluation Services	-	-	-	-	-	1,638,003	2,731,560	1,093,556	40%
Advertising and Marketing Services	-	-	-	-	-	1,230,162	1,734,782	504,623	29%
Other Professional Services	3,975	-	-	-	-	1,607,880	2,594,066	986,184	38%
Travel, Meetings, Trainings and Conferences	316	-	-	95	-	94,299	148,624	54,324	37%
Dues, Licenses and fees	34,038	-	-	-	-	67,754	77,464	9,710	13%
Software and Hardware	-	-	-	-	-	134,155	142,833	8,678	6%
Materials Postage and Telephone	-	-	-	-	-	1,950	6,416	4,466	70%
Miscellaneous Expenses	-	-	-	-	-	2,868	-	(2,868)	-
Shared Office Space	10,660	491	-	12,400	-	533,762	582,006	48,245	8%
Shared Information Technology	43,138	834	-	17,754	-	1,883,275	2,218,696	335,422	15%
Customer Service Management	28,867.00	-	-	-	-	229,802	288,135	58,334	20%
Trade Ally Management	-	-	-	-	-	282,368	244,174	(38,194)	-16%
Planning & Evaluation Management	68,170	-	-	-	-	1,645,191	1,851,728	206,539	11%
TOTAL PROGRAM EXPENSES	**1,421,146**	**36,024**	**6,252**	**122,156**	**-**	**123,688,687**	**134,116,504**	**10,427,823**	**0**
ADMINISTRATIVE COSTS									
Management & General	42,711	1,167	-	3,385	-	3,717,139	4,493,493	776,357	17%
Communications & Customer Svc	37,646	978	-	3,000	-	3,276,334	3,479,611	203,276	6%
Total Administrative Costs	**80,357**	**2,145**	**-**	**6,385**	**-**	**6,993,473**	**7,973,104**	**979,633**	**0**
TOTAL PROG & ADMIN EXPENSES	**1,501,503**	**38,169**	**6,252**	**128,541**		**130,682,159**	**142,089,607**	**11,407,448**	**8%**
TOTAL REVENUE LESS EXPENSES	**729,418**	**-**	**(6,252)**	**82,033**	**1,372,933**	**28,634,347**	**14,107,650**	**14,526,697**	**103%**
NET ASSETS - RESERVES									
Rollforward from beginning of year									
Beginning Total Net Assets at 1/1/2019	501,071	-	24,897	-	9,937,301	62,804,772	43,871,177	18,933,595	43%
Current Year Revenue Less Expenses	729,418	-	(6,252)	82,033	1,372,933	28,634,347	14,107,650	14,526,697	103%
Attribution of Investment income this year (est)	15,781	-	397	748	(1,212,098)	-			0.0%
Ending Net Assets	**1,246,270**	**-**	**19,042**	**82,781**	**10,098,136**	**91,439,109**	**57,978,827**	**33,460,292**	**58%**
Net Assets Breakdown									
Efficiency Program Reserves by Utility						60,726,422			
Renewable Reserves by Utility						19,266,470			
Net Assets by Other Funding Source	1,246,270	-	19,042	82,781		1,348,092			
Net Assets Loaned through Craft3 Program					1,800,000	1,800,000			
Operational Contingency Reserve					3,298,136	3,298,136			
Emergency Contingency Reserve					5,000,000	5,000,000			
Ending Net Assets / Reserves	**1,246,270**	**-**	**19,042**	**82,781**	**10,098,136**	**91,439,109**			

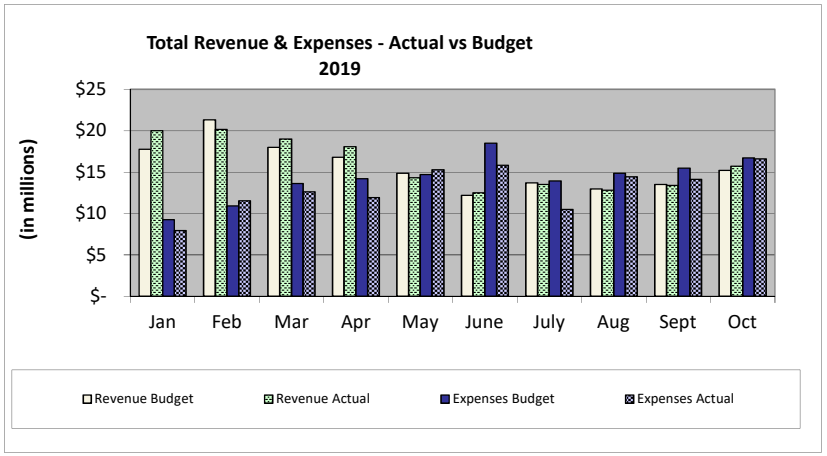
Energy Trust of Oregon
Administrative Expenses
For the Quarter and Ten Months Ending October 31, 2019
(Unaudited)

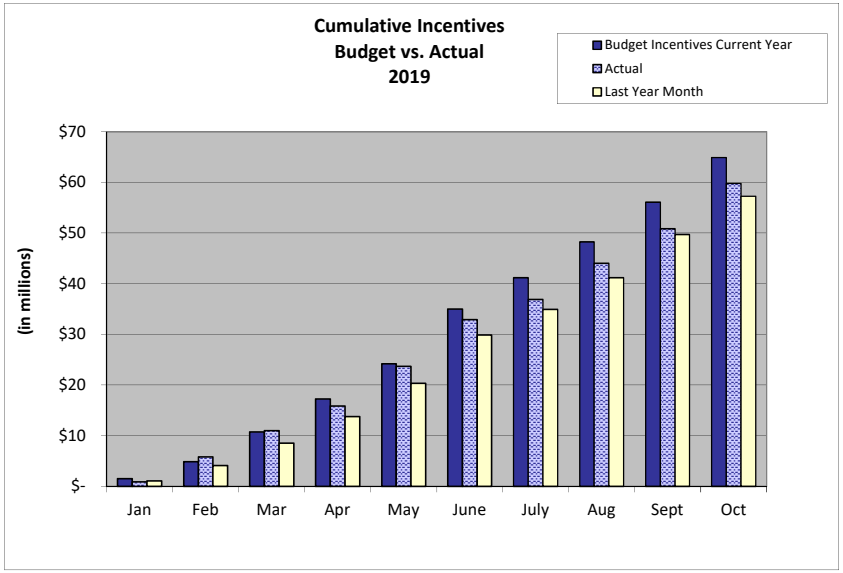
	MANAGEMENT & GENERAL						COMMUNICATIONS & CUSTOMER SERVICE					
	QUARTERLY			YTD			QUARTERLY			YTD		
	ACTUAL	BUDGET	REMAINING	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	REMAINING	ACTUAL	BUDGET	VARIANCE
EXPENSES												
Outsourced Services	$18,222	$240,354	$222,132	$437,374	$954,514	$517,139	$102,280	$323,000	$220,720	$897,104	$1,076,667	$179,563
Legal Services	6,230	13,500	7,270	7,319	45,000	37,681						
Salaries and Related Expenses	298,513	858,765	560,252	2,647,141	2,821,794	174,653	189,155	507,111	317,956	1,765,193	1,732,673	(32,520)
Supplies	59	750	691	1,769	2,500	731		125	125	1,796	417	(1,379)
Postage and Shipping Expenses		2,500	2,500	510	833	323						
Printing and Publications		2,000	2,000	3,398	6,667	3,269		875	875		2,917	2,917
Travel	6,898	14,100	7,202	40,381	46,400	6,019	1,836	9,500	7,664	43,517	31,667	(11,850)
Conference, Training & Mtngs	5,114	13,075	7,961	42,479	44,583	2,104	737	7,625	6,888	18,918	25,417	6,498
Interest Expense and Bank Fees				1,915	1,500	(415)						
Miscellaneous Expenses				18		(18)						
Dues, Licenses and Fees	770	2,400	1,630	45,990	26,505	(19,485)	1,138	4,125	2,987	18,129	13,750	(4,379)
Shared Allocation (Note 1)	26,896	73,034	46,138	236,452	245,646	9,193	18,956	59,001	40,045	198,352	198,447	95
IT Service Allocation (Note 2)	29,991	88,648	58,657	249,607	294,101	44,495	29,726	87,866	58,140	247,407	291,509	44,102
Planning & Eval	276	1,032	756	2,785	3,452	667	8,526	31,735	23,209	85,919	106,147	20,228
TOTAL EXPENSES	**392,968**	**1,310,158**	**917,190**	**3,717,139**	**4,493,495**	**776,357**	**352,354**	**1,030,963**	**678,609**	**3,276,334**	**3,479,611**	**203,276**

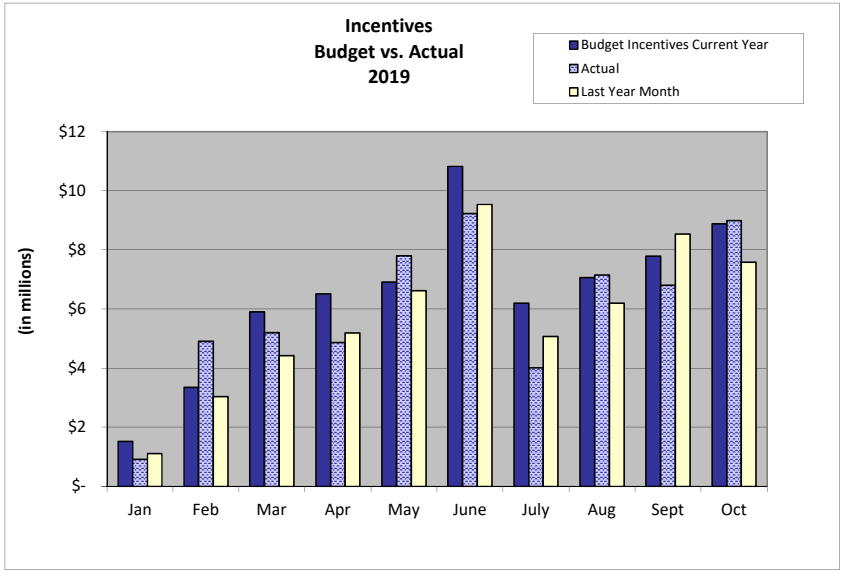
Note 1) Represents allocation of Shared (General Office Management) Costs
Note 2) Represents allocation of Shared IT Costs

Administrative Expenses 1st Month of Quarter


Cumulative Revenue & Expenses
Budget vs Actual
2019
(in millions)
$180
$160
$140
$120
$100
$80
$60
$40
$20
$-
Jan
Feb
Mar
Apr
May
June
July
Aug
Sept
Oct
Revenue Budget
Revenue Actual
Expenses Budget
Expenses Actual


Total Revenue & Expenses - Actual vs Budget
2019
(in millions)
$25
$20
$15
$10
$5
$-
Jan
Feb
Mar
Apr
May
June
July
Aug
Sept
Oct
Revenue Budget
Revenue Actual
Expenses Budget
Expenses Actual


Cumulative Incentives
Budget vs. Actual
2019
Budget Incentives Current Year
Actual
Last Year Month
(in millions)
$70
$60
$50
$40
$30
$20
$10
$-
Jan
Feb
Mar
Apr
May
June
July
Aug
Sept
Oct


Incentives
Budget vs. Actual
2019
Budget Incentives Current Year
Actual
Last Year Month
(in millions)
$12
$10
$8
$6
$4
$2
$-
Jan
Feb
Mar
Apr
May
June
July
Aug
Sept
Oct

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R00407

Energy Trust of Oregon
Contract Status Summary Report

Report Date: 11/18/2019

For contracts with costs through: 11/1/2019

CONTRACTOR	Description	City	EST COST	Actual TTD	Remaining	Start	End
Administration							
		Administration Total:	**13,944,803**	**6,719,178**	**7,225,625**		
Communications							
		Communications Total:	**3,968,425**	**2,762,785**	**1,205,640**		
Energy Efficiency							
Northwest Energy Efficiency Alliance	NEEA Funding Agreement	Portland	40,386,000	0	40,386,000	1/1/2020	8/1/2025
Northwest Energy Efficiency Alliance	Regional EE Initiative Agmt	Portland	36,142,871	33,630,216	2,512,655	1/1/2015	7/1/2020
ICF Resources, LLC	2019 BE PMC	Fairfax	17,010,123	12,366,302	4,643,821	1/1/2019	12/31/2019
CLEAResult Consulting Inc	2019 Residential PMC	Austin	8,138,843	5,784,832	2,354,011	1/1/2019	12/31/2019
CLEAResult Consulting Inc	2019 NBE PMC	Austin	6,477,804	5,278,180	1,199,624	1/1/2019	12/31/2019
Northwest Energy Efficiency Alliance	Regional Gas EE Initiative	Portland	5,864,530	4,430,270	1,434,260	1/1/2015	7/1/2020
Lockheed Martin Corporation	2019 MF PMC	Grand Prairie	4,728,273	3,509,857	1,218,416	1/1/2019	12/31/2019
Energy 350 Inc	PE PDC 2019	Portland	3,583,989	2,734,678	849,311	1/1/2019	12/31/2019
Cascade Energy, Inc.	PE PDC 2019	Walla Walla	2,401,712	2,021,148	380,564	1/1/2019	12/31/2019
Intel Corporation	EE Project Incentive Agmt	Hillsboro	2,400,000	1,600,000	800,000	11/13/2015	12/31/2019
Evergreen Consulting Group, LLC	PE Lighting PDC2019	Tigard	2,271,740	1,816,240	455,500	1/1/2019	12/31/2019
RHT Energy Inc.	PE PDC 2019	Medford	2,199,922	1,727,658	472,264	1/1/2019	12/31/2019
TRC Engineers Inc.	2019 EPS New Const PDC	Irvine	2,135,341	1,703,019	432,322	1/1/2019	12/31/2019
Cascade Energy, Inc.	PE PDC 2019	Walla Walla	1,921,485	1,575,662	345,823	1/1/2019	12/31/2019
Northwest Power & Conservation Council	RTF Funding Agreement		1,825,000	1,695,057	129,943	2/25/2015	12/31/2019
CLEAResult Consulting Inc	2019 Retail PDC	Austin	1,403,837	1,115,361	288,476	1/1/2019	12/31/2019
Craft3	Manufactured Home Pilot Loan	Portland	1,000,000	0	1,000,000	9/20/2018	9/20/2033
Michaels Energy, Inc.	PE 16 &17 Impact Eval	La Crosse	539,000	535,044	3,956	7/1/2018	9/1/2019
Craft3	Loan Agreement	Portland	500,000	500,000	0	1/1/2018	12/31/2019
Pivotal Energy Solutions LLC	License Agreement	Gilbert	490,500	369,925	120,575	3/1/2014	12/31/2019
Uplight, Inc.	Optix Engage Online Audit Tool		467,000	405,538	61,462	6/1/2016	5/31/2020
CLEAResult Consulting Inc	2019 Residential PMC - Pilots	Austin	400,790	175,959	224,831	1/1/2019	12/31/2019
Open Energy Efficiency, Inc.	Automated Meter Data Analysis	Mill Valley	400,000	355,467	44,533	1/1/2018	12/31/2019
Balanced Energy Solutions LLC	New Homes QA Inspections	Portland	381,575	226,912	154,663	4/27/2015	12/31/2019
DNV GL Energy Services USA Inc	EB 2018 Impact Eval	Oakland	350,000	78,919	271,081	5/9/2019	5/31/2020
Craft3	Loan Agreement	Portland	300,000	300,000	0	6/1/2014	6/20/2025
ICF Resources, LLC	2019 BE NWN WA PMC	Fairfax	270,876	224,453	46,423	1/1/2019	12/31/2019
The Cadmus Group LLC	2017 NB Impact Eval	Portland	250,000	184,897	65,103	3/4/2019	3/31/2020
CLEAResult Consulting Inc	2019 Residential PMC - WA	Austin	222,790	155,210	67,580	1/1/2019	12/31/2019
ICF Resources, LLC	2019 BE DSM PMC	Fairfax	215,972	96,962	119,010	1/1/2019	12/31/2019

Energy Trust of Oregon
Contract Status Summary Report

Report Date: 11/18/2019

For contracts with costs
through: 11/1/2019

CONTRACTOR	Description	City	EST COST	Actual TTD	Remaining	Start	End
CLEAResult Consulting Inc	2019 Residential PMC - CustSvc	Austin	176,490	126,139	50,351	1/1/2019	12/31/2019
The Cadmus Group LLC	Site Speciific Impact Evals	Portland	170,000	6,253	163,748	2/8/2019	1/31/2021
DNV GL Energy Services USA Inc	Ind O&M Persistence Study	Oakland	157,980	113,732	44,248	9/4/2018	10/1/2019
Opinion Dynamics Corporation	PE Process Evaluation	Waltham	150,850	140,910	9,940	4/2/2018	11/15/2019
TRC Engineers Inc.	2019 EPS New Const PDC - WA	Irvine	124,474	105,719	18,755	1/1/2019	12/31/2019
SBW Consulting, Inc.	BPA Air Source HP Study	Bellevue	119,500	39,896	79,604	11/26/2018	11/30/2019
Portland General Electric	Intel Mega project transition	Portland	110,000	92,613	17,387	1/1/2019	12/31/2019
Alternative Energy Systems Consulting, Inc.	PE Technical Review Assistance	Carlsbad	100,000	28,305	71,695	5/8/2019	4/30/2021
Cadeo Group LLC	Propensity Model	Washington	99,840	99,840	0	3/15/2019	12/31/2019
WegoWise Inc	benchmarking license	Boston	90,000	44,228	45,772	6/15/2014	12/31/2019
EES Consulting, Inc	Professional Services Agmt	Kirkland	83,630	35,638	47,993	10/1/2016	9/30/2020
Evergreen Economics	EM Process Evaluation	Portland	72,000	62,734	9,266	5/6/2019	12/31/2019
Earth Advantage, Inc.	Decrease REA to EA	Portland	70,500	27,750	42,750	11/1/2018	10/31/2020
Battele Memorial Institute	PNNIL Services Agreement		70,142	70,142	0	5/9/2019	3/30/2020
Opinion Dynamics Corporation	Evaluation MHR Pilot	Waltham	66,000	36,973	29,027	5/1/2017	3/31/2020
SBW Consulting, Inc.	Streamlined TAS Assessment	Bellevue	60,000	0	60,000	10/31/2019	4/15/2020
BASE zero LLC	Quality Assurance Services	Bend	58,825	57,553	1,273	3/1/2016	12/31/2019
Craft3	SWR Loan Origination/Loss Fund	Portland	55,000	0	55,000	1/1/2018	12/31/2019
Northwest Energy Efficiency Alliance	SmartThermostatPerformance	Portland	50,000	50,000	0	9/15/2019	9/14/2021
TRC Engineers Inc.	2019 EPS New Const-Grid Harmon	Irvine	50,000	49,943	57	1/1/2019	12/31/2019
Verde	Community based EE	Portland	50,000	17,000	33,000	3/22/2019	12/31/2019
RWDI USA LLC	Net Zero Fellowship Grant		40,500	12,500	28,000	9/1/2018	12/31/2019
Apex Analytics LLC	WhiskerLabs Optimization Pilot	Boulder	40,000	35,763	4,238	3/20/2019	12/31/2019
FMYI, INC	Subscription Agreement	Portland	39,650	39,650	0	4/25/2016	2/1/2020
INCA Energy Efficiency, LLC	Intel Mega Projects Eval	Grinnell	35,000	651	34,349	8/1/2019	7/1/2021
KEMA Incorporated	Billing Analysis Review	Oakland	35,000	8,084	26,916	3/15/2015	12/31/2019
MetaResource Group	Intel Mod 1&2 Megaproject	Portland	35,000	12,417	22,583	3/1/2018	12/31/2019
Northwest Energy Efficiency Council	Tool Lending Library	Seattle	30,500	30,500	0	1/1/2019	12/31/2019
American Council for and Energy Efficient Economy	2019 Research Sponsorships		30,000	0	30,000	1/1/2019	12/31/2019
INCA Energy Efficiency, LLC	Red Rock Evaluation	Grinnell	30,000	1,587	28,413	6/10/2018	6/9/2020
Community Energy Project, Inc.	Grant for MF Heating Workshops	Portland	26,050	24,500	1,550	4/24/2019	12/31/2019
University of Oregon	NB 2018 Net Zero Fellows Grant	Eugene	26,000	9,398	16,602	10/1/2018	3/30/2020
Cadeo Group LLC	RetailLightingTrackingAnalysis	Washington	21,120	11,690	9,430	4/1/2019	12/31/2019
Michaels Energy, Inc.	Large NB Impact Evaluation	La Crosse	18,000	16,002	1,998	8/1/2018	3/31/2020

For contracts with costs
through: 11/1/2019

CONTRACTOR	Description	City	EST COST	Actual TTD	Remaining	Start	End
Rocky Mountain Institute	Innovation Team training E-Lab	Boulder	16,000	0	16,000	10/1/2019	12/31/2019
Efficiency for Everyone, LLC	Benefit Outreach- Appliances	Portland	15,000	11,250	3,750	1/1/2019	12/31/2019
Ekotrop, Inc.	Alternative Modeling Software		15,000	10,000	5,000	6/30/2019	1/31/2020
DNV GL Energy Services USA Inc	NBProgram Techincal Guidelines	Oakland	12,000	11,200	800	8/14/2019	10/30/2019
HST&V, LLC	SEM Territory 3 Recruitment	Portland	10,000	0	10,000	8/15/2019	12/31/2019
LightTracker, Inc.	POS data development lighting	Boulder	10,000	7,500	2,500	4/1/2019	12/31/2019
Northwest Earth Institute	2019 EcoChallenge	Portland	10,000	10,000	0	7/23/2019	12/31/2019
The Cadmus Group Inc.	NB Evaluation Plan	Watertown	9,500	4,945	4,555	10/1/2017	3/30/2020
Demand Side Analystics, LLC	TheromstatOpitmizationStudy OR		8,600	0	8,600	10/10/2019	5/30/2020
Resource Innovation Institute	2019 EE PETraining Sponsorhip	Portland	7,500	7,500	0	2/6/2019	12/31/2019
Northwest Energy Efficiency Council	2019 BOC Technical Webinar	Seattle	6,780	6,780	0	1/1/2019	12/31/2019
		Energy Efficiency Total:	**147,192,404**	**86,075,051**	**61,117,353**		
Joint Programs							
Apex Analytics LLC	ResidentialPayPerformance P4P	Boulder	83,000	5,245	77,755	8/1/2019	4/30/2022
Structured Communications Systems, Inc.	ShoreTel Phone System Install	Clackamas	72,845	65,287	7,559	1/1/2017	12/31/2019
Pivot Advertising	TLM Pilots		40,000	22,532	17,468	5/7/2019	9/15/2020
Illume Advising, LLC	Customer Insights Study	Verona	34,000	16,451	17,549	7/20/2019	12/31/2019
Infogroup Inc	Data License & Service Agmt	Papillion	26,114	19,877	6,237	2/12/2018	2/12/2020
Consortium for Energy Efficiency	Benchmarking Project 2019	Boston	20,000	0	20,000	1/1/2019	12/31/2019
Daniel E. Ledezma	DEI Project Management	Portland	19,100	0	19,100	1/1/2019	12/31/2019
The Cadmus Group LLC	Capacity Savings Peak Periods	Portland	8,500	8,499	1	5/1/2019	12/31/2019
Empress Rules LLC	DEI Training & Consulting		7,500	0	7,500	9/1/2019	8/31/2020
		Joint Programs Total:	**311,059**	**137,890**	**173,169**		
Renewable Energy							
Sunway 3, LLC	Prologis PV installation	Portland	3,405,000	3,261,044	143,956	9/30/2008	9/30/2028
City of Salem	Biogas Project - Willow Lake	Salem	3,000,000	0	3,000,000	9/4/2018	9/4/2038
Clean Water Services	Project Funding Agreement	Hillsboro	3,000,000	2,013,106	986,894	11/25/2014	11/25/2039
Oregon Institute of Technology	Geothermal Resource Funding	Klamath Falls	1,550,000	1,550,000	0	9/11/2012	9/11/2032
Farm Power Misty Meadows LLC	Misty Meadows Biogas Facility	Mount Vernon	1,000,000	1,000,000	0	10/25/2012	10/25/2027
Farmers Conservation Alliance	Irrigation Modernization	Hood River	1,000,000	426,008	573,992	4/1/2019	3/31/2021
Three Sisters Irrigation District	TSID Hydro	Sisters	1,000,000	1,000,000	0	4/25/2012	9/30/2032
Farmers Irrigation District	FID - Plant 2 Hydro	Hood River	900,000	900,000	0	4/1/2014	4/1/2034

Energy Trust of Oregon
Contract Status Summary Report

Report Date: 11/18/2019

For contracts with costs
through: 11/1/2019

CONTRACTOR	Description	City	EST COST	Actual TTD	Remaining	Start	End
Three Sisters Irrigation District	Mckenize Reservoir Irrigation	Sisters	865,000	0	865,000	3/18/2019	3/17/2038
Klamath Falls Solar 2 LLC	PV Project Funding Agreement	San Mateo	850,000	382,500	467,500	7/11/2016	7/10/2041
Old Mill Solar, LLC	Project Funding Agmt Bly, OR	Lake Oswego	490,000	490,000	0	5/29/2015	5/28/2030
City of Medford	750kW Combined Heat & Power	Medford	450,000	450,000	0	10/20/2011	10/20/2031
City of Pendleton	Pendleton Microturbines	Pendleton	450,000	150,000	300,000	4/20/2012	4/20/2032
Deschutes Valley Water District	Opal Springs Hydro Project	Madras	450,000	0	450,000	1/1/2018	4/1/2040
RES - Ag FGO LLC	Biogas Manure Digester Project	Washington	441,660	441,660	0	10/27/2010	10/27/2025
RES - Ag FGO LLC	Biogas Manure Digester - FGO	Washington	441,660	438,660	3,000	10/27/2010	10/27/2025
Three Sisters Irrigation District	TSID Funding Agreement	Sisters	400,000	300,000	100,000	1/1/2018	12/31/2038
Farmers Conservation Alliance	Program Support	Hood River	367,000	366,909	91	1/1/2018	12/31/2019
SunE Solar XVI Lessor, LLC	BVT Sexton Mtn PV	Bethesda	355,412	355,412	0	5/15/2014	12/31/2034
CIty of Gresham	City of Gresham Cogen 2		350,000	334,523	15,477	4/9/2014	7/9/2034
Clean Power Research, LLC	PowerClerk License	Napa	303,601	303,601	0	7/1/2017	5/31/2020
Energy Assurance Company	Solar Verifier	Milwaukie	200,000	147,560	52,440	11/15/2018	10/14/2020
City of Astoria	Bear Creek Funding Agreement	Astoria	143,000	143,000	0	3/24/2014	3/24/2034
Gary Higbee DBA WindStream Solar	Solar Verifier	Eugene	100,000	10,714	89,286	10/15/2018	10/14/2020
Kendrick Business Services LLC	Small Business Financial Dev	Albany	84,750	16,940	67,810	8/1/2018	6/30/2020
Wallowa County	Project Funding Agreement	Enterprise	80,000	0	80,000	4/1/2018	3/31/2038
SPS of Oregon Inc	Project Funding Agreement	Wallowa	75,000	74,513	488	10/15/2015	10/31/2036
Craft3	NON-EEAST OBR Svc Agrmt	Portland	60,000	60,000	0	1/1/2018	12/31/2019
Clean Power Research, LLC	WattPlan Software	Napa	56,000	56,000	0	11/17/2017	5/31/2020
Oregon Solar Energy Industries Association	Solar soft costs install price	Portland	54,200	30,525	23,675	12/21/2018	6/30/2020
TRC Engineers Inc.	2019 EPS New Const PDC-Solar	Irvine	53,016	41,554	11,462	1/1/2019	12/31/2019
Site Capture LLC	SiteCapture Subscription	Austin	42,000	36,000	6,000	2/1/2018	1/31/2020
Wallowa Resources Community Solutions, Inc.	Renewables Field Outreach	Enterprise	40,000	36,658	3,342	2/1/2018	1/31/2020
Clean Energy States Alliance	MOU Membership 2019-20	Montpelier	39,500	39,500	0	7/1/2019	6/30/2020
Faraday Inc	Software Services Subscription	Burlington	36,000	36,000	0	1/15/2019	12/14/2019
Oregon Solar Energy Industries Association	SolarTechicalTraining Recruit	Portland	33,500	0	33,500	9/15/2019	10/31/2020
University of Oregon	UO SRML Contribution 2019	Eugene	24,999	24,999	0	3/9/2019	3/8/2020
Robert Migliori	42kW wind energy system	Newberg	24,125	24,125	0	4/11/2007	1/31/2024
Warren Griffin	Griffin Wind Project	Salem	13,150	9,255	3,895	10/1/2005	10/1/2020
Mid Columbia Economic Development	2019 LMI Solar Grant	The Dalles	10,000	6,000	4,000	1/25/2019	3/31/2020

Energy Trust of Oregon
Contract Status Summary Report

Report Date: 11/18/2019

For contracts with costs
through: 11/1/2019

CONTRACTOR	Description	City	EST COST	Actual TTD	Remaining	Start	End
Sustainable Northwest	LMI Solar Innovation Grant	Portland	10,000	6,000	4,000	1/25/2019	4/30/2020
Verde	2019 LMI Solar Grant	Portland	10,000	6,000	4,000	1/25/2019	4/30/2020
Wallowa Resources Community Solutions Inc	LMI Solar Innovation Grant	Enterprise	10,000	8,000	2,000	1/25/2019	11/30/2019
Umpqua Community Development Corp.	LMI Solar Innovation Grant	Roseburg	9,000	7,200	1,800	1/25/2019	3/21/2020
Seeds for the Sol	2019 LMI Solar Grant		8,350	6,680	1,670	1/25/2019	10/30/2019
African American Alliance for Homeownership	LMI Solar Innovation Grant	Portland	8,000	4,800	3,200	1/25/2019	11/30/2019
Oregon Clean Power Cooperative	2019 LMI Solar Grant	Corvallis	6,250	3,750	2,500	1/25/2019	10/30/2019
Rocky Mountain Institute	Membership to Elab 2019	Boulder	6,000	6,000	0	7/15/2019	7/30/2020
		Renewable Energy Total:	**22,306,173**	**15,005,194**	**7,300,979**		
		Grand Total:	**187,722,864**	**110,700,098**	**77,022,766**		
		Contracts without incentives & without 2020-2025 NEEA:	**123,604,257**	**94,870,240**	**28,734,017**		
		Renewable Energy Incentive Total:	**21,332,607**	**14,229,857**	**7,102,750**		
		Energy Efficiency Incentive Total:	**2,400,000**	**1,600,000**	**800,000**		

Tab 9

Policy Committee Meeting Notes

November 14, 2019

Attending at Energy Trust offices
Alan Meyer (committee chair), Eric Hayes

Adam Bartini, Shelly Carlton, Amber Cole, Michael Colgrove, Tara Crookshank, Cheryle Easton, Fred Gordon, Betsy Kauffman, Steve Lacey, Debbie Menashe , Amanda Potter, Zabyn Towner, Peter West, Mark Wyman (Energy Trust),

Attending by teleconference
Henry Lorenzen, Anne Root, Roger Hamilton (ex-officio)

Policies Reviewed

1. **Diversity, Equity and Inclusion Policy 4.08.000-P**

By its terms, the Diversity, Equity and Inclusion Policy is set up for annual review through 2020. In reviewing the policy at the end of 2019, staff recommended two revisions:

- First, in the introduction to the policy, there is reference to the Energy Trust vision statement. Since the vision statement was changed in the newly adopted 2020-2024 Energy Trust Strategic Plan, staff proposes that the vision language in the policy is revised to be consistent with the new vision statement language.
- Second, in consultation with Debbie Kitchin, chair of the board nominating committee, an additional revision is suggested to reflect that the board nominating committee, and not an ad hoc committee, address goals and objectives for board diversity.

Committee members discussed the suggested revisions and suggested additional revisions. First, at Alan Meyer's suggestion, the committee consensus was to add the word "efficient" into the reference to Energy Trust's vision. In addition, committee members agreed with revising the reference to an ad hoc committee to the board's nominating committee but also recommended that the policy language clearly state that any nominating committee goals and objectives for board diversity be approved by the board. Finally, committee members suggested a change to the policy language on the Diversity Advisory Council (DAC) to reflect that the DAC has been established and is operating.

Debbie will revise the policy language consistent with the discussion and circulate the revisions to committee members for review. Committee members agreed that the proposed revisions are appropriate to present to the full board on the Consent Agenda for the next full board meeting.

2. **Using Reserve Accounts Policy 5.05.010-P**

The Using Reserve Accounts Policy was up for its regular three-year review in September 2019 and was presented to the committee at its September meeting. At that time staff did not recommend changes to the policy language. Committee members had questions about the policy and suggested that staff review the policy to make it clearer and more explicit on how reserves are established and maintained. Staff are revising the policy based on policy committee comments and engaging the

finance committee in this review, given the subject matter of the policy. Staff expect to bring a proposal for a revised policy back to the committee at its next meeting. Committee members expressed appreciation for the follow up and the status update. Given that staff suggested no changes to the policy previously, but committee members raised several questions about how program and organization emergency and contingency reserves work in practice, how and what amounts of reserves in all categories are set, and whether additional detail should be included in the policy, committee members asked staff to review the policy again with an eye to revising it so a more casual reader, less familiar with Energy Trust, could gain a better sense of how reserves are established, maintained and used. Committee members also asked if the policy had been reviewed by the organization finance committee. Staff and committee members then discussed how this board policy relates to financial procedures and reports to the finance committee.

Energy Trust staff will review the current Using Reserve Accounts Policy, seek input from the finance committee, and propose revisions to the policy committee at a future committee meeting date. No changes to the policy were proposed at this meeting, but future changes may be proposed and presented to the full board at a later date.

New Funding Opportunity Presentation

Mike Colgrove, Betsy Kauffman and Jeni Hall presented information to the committee about a new funding opportunity. In 2018, staff and policy committee members worked through a process for advising the policy committee and board of new funding opportunities that would potentially exceed $50,000 in additional revenue to Energy Trust. This process emerged after discussions on Energy Trust's decision to proceed in responding to proposals for participation in the Oregon Public Utility Commission's Community Solar Program. To ensure that board members are provided early notification and an opportunity to weigh in on whether to proceed, the New Funding Opportunities Process was adopted. The New Funding Opportunities Process contemplates a two-step process: First, make the Energy Trust executive team and policy committee aware of the opportunity in an "Appendix A" form on "Awareness or Ideation." Then, after more detail about the opportunity becomes available, staff would return to the policy committee to provide more detail about the opportunity and staff's intention with respect to it in an "Appendix B" on "Intention." In Appendix B, staff would seek approval to expend funds to proceed with a proposal or other next steps.

Given timing, Betsy and Jeni presented information on a possible upcoming opportunity, providing both the Appendix A on Awareness and Appendix B on Intention. Staff also asked the policy committee whether they had enough information to approve going forward to the full board with information and a request for proposal development funding. Committee members asked several questions about the opportunity and offered staff suggestions on ways to prepare for questions that might come up in a full board presentation. Committee members also recommend that staff check in with the board before a proposal is formally submitted to fill in any additional details.

Board Presentation Previews

Mark Wyman and Dan Rubado previewed their presentation on a proposal for approval of a contract amendment and extension with Recurve Analytics, Inc. Recurve Analytics provides data analytics software to assist in analysis of utility usage data. Recurve's product informs program design, including for Energy Trust's pay-for-performance program, and evaluation. Committee members provided comments on the previewed presentation and suggested that staff make time at the board meeting to show the product.

Amanda Potter previewed her presentation on a proposal for approval of project funding for a production efficiency project requiring waiver of project incentive funding caps. Committee members commended Amanda on her presentation and look forward to the discussion at the board meeting.

Fred Gordon previewed a proposal for approval of a 5-year funding agreement with the Regional Technical Forum (RTF). Committee members discussed how Energy Trust with RTF is foundational and expressed hope for a continued productive working relationship.

Shelly Carlton previewed a presentation for two proposals for media buying contracts, one for traditional media buying and one for digital media buying.

Proposal for a Diversity Advisory Council Stipend Process

Debbie Menashe presented staff's proposed Diversity Advisory Council (DAC) stipend payment process to the policy committee. The DAC charter, approved by the board in July 2019, authorizes payment of stipends to DAC members. The charter also requires that payment for process for a DAC stipend be presented to the board for approval. Policy committee members expressed support for a DAC stipend and the benefits of stipends in reducing barriers to participation on the DAC. Staff noted that the stipend is assisting in recruiting efforts for the DAC. The committee asked staff to return to the policy committee at its next meeting with more detailed comparison information about stipend amounts and considerations from other agencies. Staff will provide additional information to the policy committee at its next meeting.

Staff Updates

Mike Colgrove informed the committee of a report on the public purpose charge that Cascade Policy Institute is preparing.

The meeting adjourned at approximately 3:00 p.m.

Tab 10

Renewable Energy Advisory Council Meeting Notes

Wednesday, October 16, 2019

Attending from the council

Erik Anderson, Pacific Power
Josh Halley, Portland General Electric
Alexia Kelly, Electric Capital Management (phone)
Anna Kim, Oregon Public Utility Commission
Suzanne Leta, SunPower
Michael O'Brien
Rebecca Smith, Oregon Department of Energy
Jaimes Valdez, Portland Clean Energy Community Benefits Fund
Dick Wanderscheid, Bonneville Environmental Foundation

Attending from Energy Trust

Shelly Carlton
Shayna Choulet
Ryan Cook
Grace Diller
Matt Getchell
Samuel Girma
Betsy Kauffman
Dave McClelland
Dave Moldal
Lizzie Rubado
Thaddeus Steerman
Julianne Thacher
Peter West

Others attending

Evan Ramsay, Bonneville Environmental Foundation
Ryan Sheehy, Fleet Development (phone)

1. Welcome, Introductions, Reading

Dave McClelland called the meeting to order at 12:03 p.m. Staff provided an updated version of the Community Solar Development Assistance Briefing Memo for RAC members to review at the beginning of the meeting. Presentations and conversations began at 12:16 pm.

The agenda, notes and presentation materials are available on Energy Trust's website at: https://www.energytrust.org/about/public-meetings/renewable-energy-advisory-council-meetings/. The meeting was recorded on GoToMeeting. If you'd like to refer to the meeting recording for further detail on any of these topics, email info@energytrust.org.

2. Staff proposal for Community Solar development assistance incentives

Topic Summary

Staff reviewed the recent history of the community solar program and presented their proposed design and timing for development assistance incentives for public and nonprofit-led Community Solar projects.

Discussion

Staff fielded some clarifying questions, but quickly moved into full discussion.

3. Discussion on staff's Community Solar incentive proposal

Topic Summary
Staff gathered feedback on their proposal, facilitated a discussion on design choices and tradeoffs and addressed clarifying questions. Attendees provided feedback on prepared questions referenced in the briefing memo during the second half of the conversation. Feedback and discussion topics are grouped by theme below.

Discussion
Budget Allocation and Incentive Design
Members asked clarifying questions about general budget impact and the basis of the proposed incentive design (Jaimes Valdez, Suzanne Leta, Michael O'Brien). Staff explained that it was not necessary to de-prioritize or reduce funding for the standard program to be able to fund this offering. Staff also addressed the history of providing project development assistance in Other Renewables for more than ten years, and solar development assistance since 2018. Staff continued to explain that the incentive design elements included in the proposal (total amounts, percentages of cost, target audience) are a starting place. Staff want to evaluate key learnings as they go and adaptively manage the offering.

Members asked for clarification on the budget split between utilities (Josh Halley, Jaimes Valdez). Staff responded that a traditional split is likely on the installation incentives side (60% PGE, 40% Pacific Power), but the goal will be to have a more even split for development assistance, especially given the consideration that demand in Pacific Power territory is likely to be higher, and early development assistance funding is important. Members also asked how Energy Trust proposes to report on eligible activities (Evan Ramsay), to which staff responded that there would be an enrollment form and a line item evaluation by staff to approve specific activities and a reserved incentive amount. This raised the additional point that this process will enable Energy Trust to gain some key learnings about this market and how much this kind of work actually costs.

Eligible Services Covered
Staff and members discussed what services should be eligible to receive assistance funding (Jaimes Valdez, Michael O'Brien, Alexia Kelly, Evan Ramsay, Josh Halley, Erik Anderson). Generally, staff proposed covering expenses related to capacity-building, development and staff time related to advancing a specific project, or comparing and evaluating the merits of a short list of projects to identify a path forward. Conversations around ideation (cultivating interest in or coming up with ideas for new projects) and market development, while important, will need to be addressed separately from the current offering.

Members discussed the barriers around interconnection, zoning and permitting, and the variability of possible related expenses, and asked for clarification about whether fees are included as eligible expenses (Alexia Kelly, Jaimes Valdez, Evan Ramsay). Staff clarified that design and consultation expenses related to preparing and doing the work would be eligible, but not the explicit fees themselves.

Participant Roles and Priorities
Staff collected feedback on who should be eligible to apply for this funding. Members shared the early challenges many nonprofits and public entities may face in identifying a *Project Manager* (a specific, registered role in the Oregon Community Solar Program that comes with certain long-term duties and responsibilities) to apply for funding and deliver services. Identifying this role is a challenge simply from a resources and capacity standpoint (Alexia

Kelly, Jaimes Valdez). Members also shared the risk of working without a third-party project manager, given that the expertise does not exist in-house for most organizations. Communities and community-based organizations are interested in partnering with whomever will be able to help them get their project across the finish line (Alexia Kelly). Additionally, members discussed the potential concern for a for-profit entity using a non-profit to access funds that aren't intended for them (Erik Anderson). However, it was raised that no project is likely to be successful unless it finds a way to monetize the tax credits, implying that a third-party, private involvement may be necessary for any project, even if the project champion is not-for-profit (Ryan Sheehy).

Staff clarified that the initial intent of the Project Manager distinction is to mirror what was previously put forward by the Oregon Public Utility Commission, and that a "third-party" is someone who is not an employee of the Project Manager and is compensated for some services. Members raised the possibility of whether different caps on assistance funding raised equity concerns with regards to who is applying (Michael O'Brien). Staff were advised to not discriminate too much based on ownership or Project Manager and encouraged to consider opening access for development assistance to nonprofits in general who are interested in becoming "Project Managers," but haven't yet (Jaimes Valdez). Staff assured that if feedback and ongoing learnings drive Energy Trust to consider a different entity than the project manager, then that is a possibility.

Ongoing Learning and General Support

Members and staff both acknowledged that a great deal is unknown about this possible market, and we should remain flexible in the first year of this offering, and open to any entity that wants to step up and see if it works (Dick Wanderscheid). Members encouraged staff to consider metrics or questions that need to be answered a year from now, to frame a focus for key learnings (Josh Halley).

When asked if Energy Trust should be doing this and continue development, members responded in the affirmative (Jaimes Valdez, Evan Ramsay, Michael O'Brien). In response to an inquiry of whether Energy Trust had received any negative feedback on the proposal, staff responded that they had received none, and only had urging from the OPUC to remain cautious about possible roles crossing over. No members voiced any concerns about supporting development work for projects larger than 360kW-AC.

Next Steps

Staff will incorporate feedback and work to launch a revised version of the program design, reporting out to the RAC in November.

4. Public comment

There was no public comment.

5. Adjourn

The meeting adjourned at 1:30 p.m.

The final Renewable Energy Advisory Council meeting of the year will be held on November 20, 2019.