

Agenda

Conservation Advisory Council

Friday, September 14, 2018

1:30 p.m. - 5:00 p.m.

421 SW Oak St., #300, Portland, OR 97204

1:30 Welcome, Old Business and Short Takes (*information*)

Introductions, agenda review and approve August meeting notes

Welcome new member: Anna Kim from the OPUC

Organizational updates

1:45 NW Power and Conservation Council Underserved Populations Study (*information*)

Guest speaker Charlie Grist will provide an overview of the Council's Northwest Underserved Energy Efficiency Markets Assessment. In collaboration with regional electric utilities and Energy Trust, the Council facilitated analysis on underserved markets and summarized the results. Charlie will review the findings and staff recommendations.

A copy of the assessment is posted on the Council's website at

<https://www.nwcouncil.org/reports/northwest-under-served-energy-efficiency-markets-assessment>.

2:00 Review of How Energy Trust is Expanding Participation with a Focus on Diversity, Equity and Inclusion (*discussion*)

Staff will discuss the organization's approach to expanding participation, including a focus on how to increase our understanding of diversity, equity and inclusion (DEI) and improve delivery of our services and incentives to reach and serve customers.

We will look at how Energy Trust kicked off research and focus groups to implement the 2015-2019 Strategic Plan objective of expanding participation. You will hear from members of a cross-functional group of staff who established a data baseline approach this year to characterize our service territory based on diversity, equity and inclusion characteristics. The group vetted the approach with other organizations, analyzed participation with available data and established baselines. This work will support the organization in measuring progress to 10 DEI-specific goals. We will describe actions we have implemented and our process for incorporating this DEI data baseline approach and findings into 2019 action plans.

An executive summary of Energy Trust's Diversity, Equity and Inclusion operations plan is included as part of the meeting packet.

2:45 Break

2:55 Mid-year progress (*Q&A*)

Director of Energy Programs Peter West will briefly highlight the Quarter 2 report and mid-year forecast. Questions welcome from members.

The Quarter 2 report is posted online at <https://www.energytrust.org/wp-content/uploads/2018/08/ETO.Q2.18.Quarterly.Report.pdf>.

3:05 Draft 2019 Program Action Plans (*background*)

Sector Leads Thad Roth, Oliver Kesting and Amanda Potter will provide an overview of draft 2019 action plans for the residential, commercial and industrial sectors, respectively. They will focus on what is changing, new or different from 2018 to 2019, potential risk areas and notable trends.

Draft program action plans are included as part of the meeting packet.

3:55 Break

4:00 Break-out Session: Q&A with Program Staff on Draft Action Plans (*discussion*)

CAC members will have an opportunity to talk with program staff on their draft action plans. The room will be setup with five program stations (Residential, Existing Multifamily, Existing Buildings, New Buildings and Production Efficiency) and there will be time for CAC members to visit three stations. Then all CAC members will reconvene as a group, and discuss takeaways and potential staff follow-ups. Combined with the sector lead presentations, this activity is to prepare CAC to participate and inform the board at the October 17 budget workshop.

4:45 Public Comment

5:00 Adjourn

Meeting materials (agendas, presentations and notes) are available online

<https://www.energytrust.org/about/public-meetings/conservation-advisory-council-meetings/>.

Next CAC Meeting: Friday, October 12, 2018. The agenda tentatively includes a 2020-2024 strategic plan engagement session and measure changes for 2019.

Special note: There will be a board of directors budget workshop on Wednesday, October 17 that CAC members are encouraged to attend. The workshop was added this year to replace a series of budget-related presentations and ensure CAC, RAC and the board are receiving and commenting on the same information through the budget development process. More information on the workshop is forthcoming as we plan the agenda for that day. Please consider holding that time on your calendar as you would a CAC meeting.

Conservation Advisory Council Meeting Notes

August 1, 2018

Attending from the council:

JP Batmale, Oregon Public Utility
Commission
Holly Braun, NW Natural
Will Gehrke, Citizens' Utility Board of
Oregon
Danny Grady, City of Portland Bureau of
Planning and Sustainability
Kari Greer, Pacific Power
Charlie Grist, NW Power and Conservation
Council
Julia Harper, Northwest Energy Efficiency
Alliance

Jason Klotz, Portland General Electric
Roger Kainu, Oregon Department of Energy
(for Warren Cook)
Oriana Magnera, NW Energy Coalition (for
Wendy Gerlitz)
Lisa McGarity, Avista
Kerry Meade, Northwest Energy Efficiency
Council
Dave Moody, Bonneville Power
Administration
Al Spector, Cascade Natural Gas

Attending from Energy Trust:

Kathleen Belkhatat
Mike Bailey
Quinn Cherf
Amber Cole
Mike Colgrove
Ryan Crews
Chris Crockett
Hannah Cruz
Becky Engel
Sue Fletcher
Fred Gordon
Jackie Goss
Oliver Kesting
Jessica Kramer
Steve Lacey

Scott Leonard
Spencer Moersfelder
Alex Novie
Jon Pauly
Amanda Potter
Thad Roth
Kate (Scott) Wellington
Kenji Spielman
Cameron Starr
John Volkman
Katie Wallace
Peter West
Mariah Wills
Mark Wyman

Others attending:

Jon Eicher, ICF
Beth Glynn, Cascade Energy
Lindsey Hardy, Energy Trust board
Karla Hendrickson, ICF
Rick Hodges, NW Natural
Anna Kim, OPUC
Joe Marcotte, LM Energy

Alan Meyer, Energy Trust board
John Molnar, Rogers
Lonny Peet, Nexant
Whitney Rideout, Evergreen
Susan Steward, BOMA
Josh Weissert, Energy350

RAC/CAC Joint Session: 2020-2024 Strategic Plan Development

Prior to the meeting, members of the Conservation Advisory Council and Renewable Energy Advisory Council met with staff working on development of the 2020-2024 Strategic Plan. The joint meeting included an interactive discussion on Energy Trust's unique strengths and value to the marketplace.

Facilitator Holly Valkama opened the session and John Volkman introduced the process for developing Energy Trust's 2020-2024 Strategic Plan. Compared with past plans, which have focused largely on quantitative energy goals, the strategic plan in development will consider qualitative goals as well. The planning process will incorporate a staged approach to develop various components of the plan.

RAC and CAC members contributed to the first stage of the strategic planning process by participating in an exercise to revise a draft "strengths and capabilities map" about Energy Trust. John reviewed a preliminary map of strengths with the group, which included scale, credibility, design and execution, and innovation. The members gathered in small groups to discuss the map and report feedback and recommended changes.

Some groups proposed additional strengths such as money management, nonprofit status, transparency, customer satisfaction and Energy Trust's key position in an ecosystem of other clean energy-focused organizations. Other groups wanted to qualify strengths or discuss how they might evolve over the course of the strategic plan. For example, a few groups called out innovation and credibility as characteristics that should be considered in context and may take on new meaning over time.

A revised map incorporating the members input will be provided to the councils before the October CAC and RAC meetings.

1. Welcome, Old Business and Short Takes

Hannah Cruz convened the meeting at 1:44 p.m. The agenda, notes and presentation materials are available on Energy Trust's website at www.energytrust.org/about/public-meetings/conservation-advisory-council-meetings/.

Tony Galluzzo from BOMA will step down from his role as a CAC member, and BOMA is identifying a replacement representative for staff to send to the board Policy Committee for approval. Hannah described Energy Trust's budget and action planning process underway for 2019. CAC members should expect to discuss the draft action plans at September's meeting. Hannah also updated CAC members about the findings of a performance audit conducted by the Oregon Secretary of State's office. The audit evaluated the Oregon Public Utility Commission's (OPUC) oversight of Energy Trust, with a focus on administrative costs. The auditors found that Energy Trust's administrative costs were reasonable.

2. Production Efficiency Program Delivery Contractor RFP Results

Production Efficiency Sector Lead Amanda Potter reviewed the results of a competitive request for proposals for three Production Efficiency program delivery contractors and the Energy Trust board decision to approve contracts with Energy 350, Cascade Energy and RHT Energy Solutions. Energy Trust received multiple proposals for each territory.

Holly Braun: What were the savings of the custom track?

Amanda Potter: The custom track contributes 50 percent of electric savings and 70 percent of gas savings.

Holly Braun: How did you differentiate the first criteria for selection, "energy and costs savings," from "strength of proposal"?

Amanda Potter: The first criteria was around price and our confidence in the contractor's ability to deliver energy savings.

Peter West: You can see more detail on our website about how we evaluated each category.

Amanda noted that all three contract winners presented strong industrial energy efficiency experience, cost-effective proposals, clear strategies to achieve energy savings and evolve the program, and new ideas on how to reach diverse and underserved customers.

Oriana Magnera: You said the proposers you chose had strengths in diversity, equity and inclusion. What did their proposals include?

Amanda Potter: The winning bidders demonstrated strong organizational commitments to diversity. They had set diversity goals and expanded their hiring practices to bring in diverse candidates. They also described their abilities and strategies to reach diverse customers. Small- to medium-sized businesses and rural customers have been a key focus for the Production Efficiency program, and was a focus in the proposals.

3. 2019 Measure Reviews: Introduction and Overview

Director of Energy Programs Peter West introduce the topic of measure reviews, and Engineering Manager Mike Bailey provided an overview of measures that staff are reviewing for 2019, including changing measures, expiring measures and new measures or pilots.

Peter noted that today's presentation contains preliminary analysis and therefore is still under development. However, staff wanted to bring this topic to CAC now in the spirit of providing information earlier. Mike shared an overview of the reviewed measures, and then identified two areas where trends are influencing measure decisions, specifically around lighting and water conservation. Peter said staff use this measure analysis process to know when to exit a market.

Dave Moody: What irrigation measures are being mentioned on the slides?

Jackie Goss: Previously we had cost-effectiveness exceptions for seven measures. With re-analysis, five measures are cost effective, one measure we are gathering more information about and one measure we're canceling. We're asking for an exception for drop tubes.

Jason Klotz: What's the total resource cost on direct install?

Mark Wyman: It's a moving target with variability.

Lisa McGarity: For some of these standard lighting measures that are expiring, could they move into custom, such as industrial lamps?

Mike: Possibly. For lamps, some may be included in other lighting measures.

Peter: In certain circumstances, the measure may work as custom, but not on a mass scale. For most customers looking at these it's not a cost-effective solution.

Mike explained the effects of the federal Energy Independence and Security Act (EISA) on lighting cost-effectiveness and the uncertainties around whether the law will be implemented in 2020 as currently written.

Holly Braun: Overall market trends seem bigger than the impact of EISA. The market is just moving to LEDs. Is EISA a secondary driver, not the catalyst for the market transformation?

Mike: Market adoption is why savings from lighting have declined the way they have been.

Holly: If EISA is capturing laggard adopters, discounting LEDs will only capture the last laggard portion of the market. Would the savings projected only capture laggards?

Mike: It's a different approach than that. We ideally would target those customers who have not yet switched to LEDs. But as part of our program design, we're offering LED lighting as a standard product for everyone going to Lowe's or Home Depot. It's a standard incentive, so as

savings decline, we decrease incentives. Price is also declining from the manufacturers, so it's compelling for someone to buy LEDs.

Peter: When you look at the future, you also have to consider what product options are available to people who have already adopted LEDs. They could revert back to halogen products in their future purchases. We have to consider what will early adopters do in their next round of purchases. So if they have adopted LEDs, and then EISA is in place, they're already going to be in the market.

JP Batmale: What's the magnitude of savings for the programs impacted?

Mike: EISA impacts residential lighting savings more than commercial.

Whitney Rideout: For the Existing Multifamily program, other than direct install, EISA-impacted lighting is 18 percent of total program lighting, and 10-12 percent for the Existing Buildings program.

Thad Roth: In 2017, the Residential program had 115 million kilowatt hours in savings from lighting; this year it's less than 30 million and 2020 will be less.

Ryan Crews: Mike is showing general purpose and reflector lights because those are the two big categories, which make up 75-80 percent of lighting sales but other categories are impacted as well. What it means is that in 2020 there is a chance we'll have no cost-effective lighting savings. Or it will be very small. Five million kilowatt hours might be optimistic.

Lisa: I read in a report that low-income households generally have at least 50 percent incandescent lighting in their homes. Is there a way that we can have equity in that market?

Mike: We do sell through Dollar Store and other outlets to provide efficient lighting options for low-income customers. Part of the challenge with studies like this is that there is a time lag between when items are installed in sockets and what's in the market. People across different incomes are buying LEDs, but if the federal standard goes in effect, no one will be able to buy incandescent or halogen. Incandescent bulbs have short life spans, so the market will replace those in a year or two. With incentives, the current costs are \$1-\$2 for an LED bulb. The price has been falling year over year. They now are more affordable.

Mike explained that for 2019 budgeting, Energy Trust will assume that EISA will be repealed or delayed based on prior experience with implementation of other technology standards. If EISA remains in place in 2019, it will make planning for 2020 difficult. In the spring of 2019, staff will begin to formulate a plan for transitioning lighting support in 2020. Staff is talking to manufacturers as well as to retailers, which will have to plan for shelf stocking months in advance. Staff hopes to find out from retailers what they plan to stock, to give some indication of market demand.

Holly: It doesn't feel good as a CAC member to say that a law on the books will be delayed or repealed. It seems more prudent to assume it will stay in place. I understand you saying that your logic is that you hope the law gets repealed because the program has more value in that condition.

Fred Gordon: A few years ago, I advocated that we not assume that EISA would take effect. Our job is to make sure standards get passed because they're the most cost-effective way to get savings. If we had done work to slow down LEDs before now, we would have slowed down our impact on the market prematurely. If we and our peer organizations around the country did this, it might reduce market acceptance and thus reduce the chance that the standard would hold. We're saying our role is to walk up to the day that standards go into effect and we may influence what happens. The federal government has proved to be unpredictable with past standards. For example, we built plans around T8 standards that we helped promote, but the standard had a loophole that prevented it from being effective. We don't assume we're going to know what the federal government will do.

Alan Meyer: Would an alternative approach be to ask the OPUC for a cost-effectiveness exception that says that if EISA passes we're out of the game and we offer an incentive if given a cost-effectiveness exception?

Anna Kim: Why?

Alan: We're showing numbers that look good now but won't look good later. We're accelerating the pace of transformation.

Holly: I'm hearing there are impacts this year because when we do planning in 2018 for 2019 we have to make assumptions for 2020 for replacement. What happens in 2020 impacts today's cost-effectiveness. We need to have more transparency and integrity. It's not cost effective but it's the right thing to do in 2019.

Peter: Rather than an exception, we also could ask the OPUC if they are comfortable with the use of our assumption, and iterate on that assumption. We stay in this market, and it doesn't matter if EISA is repealed or not, because we've transformed the market. If we exit the market too early, like we did with CFLs, and then EISA is delayed, we would lose savings and relationships with retailers. When you're trying to guess timing and you're working with retailers, they have a memory and they won't forget the decisions we make.

Alan: We don't question whether we should get in the discussion, it's just the premise of the assumption.

Peter: We will talk with the OPUC to decide if there needs to be an exception, and if they're comfortable with our assumptions.

Holly: If we could get something on the books, it would make me feel more supportive.

Mike: This is some of the internal challenge we deal with. We're trying to predict the future, and we don't know.

JP: This would be a major cost-effectiveness exception, which must go in front of the commissioners. It would not be a staff decision. It is good to have a conversation with others at the OPUC to provide some assurance that OPUC staff are in alignment with the assumption. The flip side is you go through an official cost-effectiveness exception process, but I can't guarantee the outcome will be what you want.

Dave: There's risk involved. You have changing technologies and standards, and if Energy Trust couldn't operate until standards change, that upends the apple cart. This is a big example. The goal is standards. If the calculus is that programs operate only when they're standards, that's a big tranche of the portfolio that would be challenging.

[Post meeting note: Energy Trust met with OPUC staff on the assumption of EISA not going into effect as written. Energy Trust included a lighting trends appendix in its Quarter 2 report submitted to the OPUC on August 15, and presented on these trends as well as the EISA assumption to the commissioners in late August. The commissioners and staff supported the use of the assumption. The appendix can be found on Energy Trust's website at <https://www.energytrust.org/wp-content/uploads/2018/08/ETO.Q2.18.Quarterly.Report.pdf>.]

Mike discussed water-savings measures, trends and changes. Water conservation measures are some of Energy Trust's oldest measures. He shared various modeling assumptions and energy savings that come from faucet aerator measures.

Lisa: What is the market penetration for this measure?

Mike: We found 800,000 installs of aerators over the last 10 years. We know a portion of those were for new construction, and some for existing homes. We have changed specifications over

time. Because of that, we may have replaced aerators that we previously installed. I don't have a specific percentage of the market. We will send that after the meeting.

[Post meeting note: Staff estimate there are approximately 7 million faucets in Energy Trust service territory and program volume of 800,000 aerator installations is just over 11 percent of the market. There is some uncertainty in these numbers due to different estimates on the number of faucets per home and estimates of faucets in commercial buildings, and the market share range is estimated between 10 and 15 percent.]

Peter: You asked what the scenarios are. Mike focused on the most uncertain ones and tested out the range. One could argue that the Regional Technical Forum picked the most conservative end of the spectrum, but it's still cost-effective. Our proposal is to stick with the RTF if it stays cost-effective. We may be misunderstanding the range of savings, but it didn't change the answer that the measure is cost-effective. If it dips below the line, we'll have a conversation about what that assumption should be.

Mike expects that for 2019, water measures are expected to be cost-effective.

Holly: Back to the bulbs, since we are an advisory committee, I understand what you're saying is that if the EISA law stays, then 2019 isn't cost effective, and therefore something should be done. That doesn't feel good to say we hope it gets repealed because that way we'll be cost effective. I want to go on the record with that comment.

4. 2019 Measure Reviews: Existing Multifamily Program Market Research and Early Discussions

Existing Multifamily Program Manager Kate (Scott) Wellington reviewed findings from a market analysis and presented the early discussions staff are having about opportunities and impacts for the program. Kate described work underway to understand the total multifamily market in Oregon and current participation rates, using internal and external data sources to provide insights. Staff wanted to learn what Energy Trust has done well and where there is still participation opportunity, so the program can target outreach for identified customer groups. Findings indicate that both project type and customer targets are changing.

Kate described the makeup of Energy Trust's multifamily customers, including types of units most common in Energy Trust service territories (e.g. duplex, triplex, multiunit, etc.), the geographic breakdown of these units, building occupancy trends, and the breakdown of eligible customers in various market segments (e.g. market rate, affordable housing, etc.). Energy Trust used this market data to determine program participation across all types of program tracks – buy down, custom, direct install, lighting and prescriptive.

Al Spector: Are you presenting the percentage of housing that qualifies across the state, or is it 13 percent of available housing?

Kate: It's of those structures in those regions, how many have participated in the region.

Kerry Meade: Did you look at the ages of buildings, and is that data relevant?

Kate: We did look at ages, but I chose not to present it. It was fairly widespread. The largest stock is 1970s and 1980s. We can get the full breakdown together at another date for you.

Kate discussed direct-install trends for multifamily. This is the most common first offering multifamily customers take advantage of with Energy Trust. The average size of direct install projects has decreased over the last several years because Energy Trust has served many of the larger properties throughout the state, and has increased focus on serving smaller

properties with fewer units. With uncertainties in lighting in 2020, staff will watch how this impacts multifamily measures.

Holly: Do overall savings go down or just the overall percent?

Kate: Overall percent.

Lisa: When you work on direct install for smaller units, will that increase your overall costs?

Kate: The average size of a direct install project has changed over time. In 2014, those projects averaged 25 units per site. In 2017 the average site size was 13 dwelling units. There has been a strong shift in reaching smaller units. The cost of acquisition increases with smaller units because there is a fixed cost to find these leads and go out to the sites.

Lisa: Will that put pressure on the program?

Kate: Yes.

Kate also described the overall Existing Multifamily program, its cost-effectiveness, and discussed considerations for 2019, including direct install measure savings reductions from aerators and lighting. Energy Trust plans to evaluate opportunities to redesign the direct install track for 2020, with an eye on how to stay cost effective in the face of savings decreases and rising cost of acquisition.

Kate mentioned the diversity, equity and inclusion lens that Energy Trust is applying for multifamily. Staff have evaluated affordable housing data, geographic data about participation and data about customers with low incomes. In its evaluation, staff found that participation rates were equal between low-income zip codes and overall zip codes; however, direct install and buy down was more popular for those low-income sites because the cost is lower, and larger projects were less common.

Peter: We anticipate hitting our goal because of targeted efforts in multifamily. The future of direct install is a focus. Aerators can't stand on their own as a direct install measure unless we change how we are doing them. We need to look at how we can rearrange the program in 2020 to reach customers that we haven't reached yet. Some customers may not be able to be reached in a cost-effective way, the way we're reaching them today.

JP: Residential was successful at restructuring based on market trends. Can that be done in multifamily in one year?

Peter: We don't know yet. We will do more analysis and see what we learn. It was a multiyear effort to restructure residential, culminating in a complete reorganization by the team. It might mean in 2020 we have to ask for a cost-effectiveness exception for the Existing Multifamily program. We've never done that. It is to be determined.

Charlie: Would it be helpful to think about where the remaining potential participation is? If you segmented based on what you could get for cost-effective participation, and which of those markets are lagging in participation currently, and then looked at how to go get that?

Lisa: On the direct install savings trends, it looks like gas was successful in converting customers over to prescriptive.

Kate: Yes, prescriptive has done well. There also was a showerhead flow rate study that had large showerhead savings reductions, which was applied to 2017 savings numbers, specifically gas. For electric, common-area lighting was a big driver for savings.

CAC took a break from 3:40 – 3:55 p.m.

5. 2019 Measure Reviews: Residential Heat Pump Water Heater Incentive Change

Residential Program Manager Ryan Crews provided information on midstream water heater results. He described how the water heater market has changed in 2018 and requested input on a proposed incentive increase for heat pump water heaters. Current participation rates are below forecast for both electric and gas water heaters.

Holly: Did retailers stock up in Q4?

Ryan: Yes, stocking could have been one variability.

Holly: The numbers are so much more dramatic in Q4. It would seem it would take time to work through the inventory. Is the drop in Q1 because retailers have to work through that inventory?

Ryan: These are actual sales, not stock.

Charlie: That makes it even more unbelievable. I question the data.

Ryan: The spike represents some reporting lag. Typically there are two data points reported in Q1 and Q4. While there were units sold in Q3, they weren't reported until Q4, so there is a lag in the data, which exaggerates the spike. However, there's still a clear drop-off in 2018.

Charlie: What's missing from this data is the whole market. This only shows us efficient water heater units. This chart would look different with that full market data.

Ryan: Yes, this is only efficient units coming through our program.

Ryan described that the drop-off could also be attributed to NEEA discontinuing its manufacturer incentive, as well as state and federal tax credits. Manufacturers also increased prices due to steel tariffs and cost of materials. All that happened in Q1 2018. Customers' price increased by \$300 in this timeframe.

Holly: Why did NEEA drop the incentive?

Julia: The price had come down significantly on the units, and some utilities in the alliance wanted to put incentives on them. They have their own programs. Not so much in Oregon, but for utilities in the other states this was the case.

Holly: Were they able to pay the difference in incentive themselves?

Julia: Some of them are. Also, while we stopped paying a per-unit incentive, we are doing a marketing incentive to manufacturers.

Alan: If people knew incentives were going away, would it pull forward purchases in 2017?

Ryan: Yes, possibly. However, there are not a lot of people who replace a water heater before it breaks. Some customers may have had that foresight, but likely not the full number of people represented here.

Fred: How much did pricing changes affect overall market pricing? Was it a disproportionate cost increase for only efficient units?

Ryan: No, it impacted all units, but proportionally less impact on non-efficient units because they have a lower starting retail price and the price increases were typically done as percentages.

Holly: How does the installer fit in if I buy at Home Depot and choose the unit myself? Is that not the midstream segment of the chain?

Ryan: Distributors sell to contractors, and they stock based on demand. If you have demand you can pull distributors and retailers with you.

Holly: This installer comment is more for distributor not for retail?

Ryan: Yes.

Ryan described the program's proposed actions. These include marketing and direct mail efforts to reach customers and drive them to installers who are familiar with the technology and can install it. Energy Trust also could increase its incentive by \$200.

Holly: How does that help the installer feel more motivated?

Ryan: It doesn't help that, but it makes it an easier sell. It's easier to sell an \$800 unit versus a \$1,000 unit.

Holly: The hurdle sounds like it is on the install margin?

Ryan: It is a mixed bag. It's harder to sell something that's more expensive. The other part is installation complications.

Will Gehrke: What about a payment direct to the installer?

Ryan: The way the incentive is structured, installers control how much of the incentive they pass through to customers. Once it hits installers, they could keep it all. In practice, most of the incentive usually does get passed down to the customer.

Jason: We looked at these numbers at PGE, and what we could put down for incentives. We can put \$600 in incentives for demand response water heaters. We want to talk about how to work with you to make that work with NEEA and OPUC for direct install.

Fred: The question is whether the measure is cost effective. We're serious about giving it a shot to see different streams of install work. If we can make direct install fly, how do we pay for all of it? We don't know.

Peter: I appreciate it, but we have to figure it out.

Jason: We'd like to create a forum to discuss this.

Charlie: One of the things we've seen historically with industry manufacturers and incentive programs is manufacturers set their costs nationally, with regard for what's going on in incentives. If they see more incentives, they will increase cost. You indicated that prices have gone up because of materials costs. That's a big jump for that amount of materials.

Ryan: Manufacturers saw an opportunity to increase cost.

Charlie: There are incentives in efficiency so it's a wash. Until they start lowering prices themselves, we have some questions about incentives and the impact. I'm supportive of increasing incentives, but it's just a shift in cost. It'd be interesting to look at efficient unit sales but also what percentage of efficient sales are of total available market. I think it's in the 3 percent range. It's a long way away from where we should be from a planning process. We're in an early spot in the market. It may have been a premature retreat from the support by NEEA.

Holly: Are retailers losing interest because point of sale got tricky?

Ryan: I haven't heard that from retailers. They often make manufacturers do that work for them. An assumption is that retailers are motivated by demand and sales. If they don't see customers coming in for water heaters, or efficient water heaters, they're not using up the shelf space. Getting price down, and making it an easier decision, may motivate retailers to keep stock.

Holly: I would assume retailers are losing interest. Have we talked to them?

Ryan: More insight would be helpful. This is based on early talks with retailers.

Holly: More insight into what their perspective is would be good.

Julia: Retailers make money when they move volume. If the market has dropped off, that's a driver.

Dave Moody: Our conversations at BPA match these comments and insights. Price and volume play, and it takes a lot of shelf space for water heaters.

Ryan: Asking them is a wise decision, and we'll do that in September at the ENERGY STAR partner meeting. There could be other things on the retail side we can do, and on the install side, to create the demand we want to have.

Alan: Volume dropped off, but I don't see that. I see a spike.

Ryan: I worry that waiting to find out is bad. If we can be pre-emptive and fix it before it gets worse that'd be good.

Julia: NEEA is doing things to get installers over their resistance to change. We're giving them water heaters to install in their homes to get them experience with the benefits and how to install them.

Holly: Has that been working?

Julia: We've had early positive results.

Peter: I hear interest from the group to move forward but that we need to report back. We need to get more information from installers on their behavior.

6. 2019 Measure Reviews: Irrigation Measure Update

Industry and Agriculture Senior Program Manager Jessica Kramer provided an update on the status of irrigation measures. There are currently 15 irrigation measures ranging from gaskets to sprinklers to drains. Because of recent updated data, one measure in 2018 and four in 2019 have been deemed cost effective. One measure that was going to expire in 2018 is now above a 0.8 benefit/cost ratio, and Energy Trust staff understands that the OPUC exception for this measure will be approved.

These measures became cost effective for a variety of reasons. Analyses from both the Regional Technical Forum and Energy Trust found that operating hours changed dramatically from 1,000 hours to 1,600 hours for Western Oregon. Additionally, changes in flow rates and pump heads were influencers.

Two measures expire in 2018. As part of the exit strategy for those measures, staff is providing information to vendors about the expiration, and are working with them to ensure they have time to complete sales and encourage customers to submit paperwork by the end of year.

7. Pay for Performance Pilot Evaluation Findings

Commercial Program Manager Kathleen Belkhat and ICF Engineering Manager Jon Eicher presented an overview of the commercial Pay for Performance pilot and evaluation. The pilot has seen no enrollment in 2018, because of lack of customer and contractor interest or building eligibility. In evaluating barriers to enrollment, staff discovered that contractors believe a wider audience could benefit from this, such as schools and government buildings, which were not the original target market Energy Trust selected. Making the business case to participants was also a challenge, and differentiating it from other Energy Trust initiatives such as SEM was difficult. Staff also heard in the evaluation that the application process and timeline were more than contractors would have liked.

Anna: Do you have requirements for whether people could make dramatic changes to a building? Would regression modeling work in these cases?

Kathleen: The challenge is we want a well-behaved building. Is there such a thing? If we got buildings with less variability the regression modeling would work. We had thresholds on occupancy and changes in building operations.

Kathleen requested input from the CAC around the goal of the program, the value that Energy Trust can deliver to the customer, and what outcomes we want to get out of the pilot, considering redundancies with other programs. Target audience is also of consideration, as is payment structure and eligibility. Input will be sought from CAC at a later date due to meeting time constraints.

Kari Greer: You have no customers participating? Didn't we think there were customers who would do this?

Peter: Through legislative direction from the OPUC we did this offering. Presumably there were customers advocating to do this.

Oliver Kesting: One customer is done from the pilot and is paid out fully (phase I).

Julia: Was measure-level cost effectiveness a barrier?

Josh Weissert: Most buildings we approached were doing SEM so they weren't eligible. If they did SEM they couldn't do Pay for Performance because they can't do both.

Oliver: They're duplicative. SEM serves the same role but is just for larger customers.

Holly: What if we asked the SEM customers what else they'd want to do? In order to have a conversation [to help you make decisions], we [on CAC] might need to have some SEM information, so we understand how SEM and Pay for Performance are distinct and what else is left on the table.

Oliver: What's missing is an offering for smaller customers and a payment option over more than one year. SEM pays end of each year for savings we identified. For Pay for Performance, we're paying over time for those same savings. We heard that's what they wanted. We aren't seeing they want that, however.

JP: Does commercial SEM allow for capital measures?

Oliver: Yes.

8. Public Comment

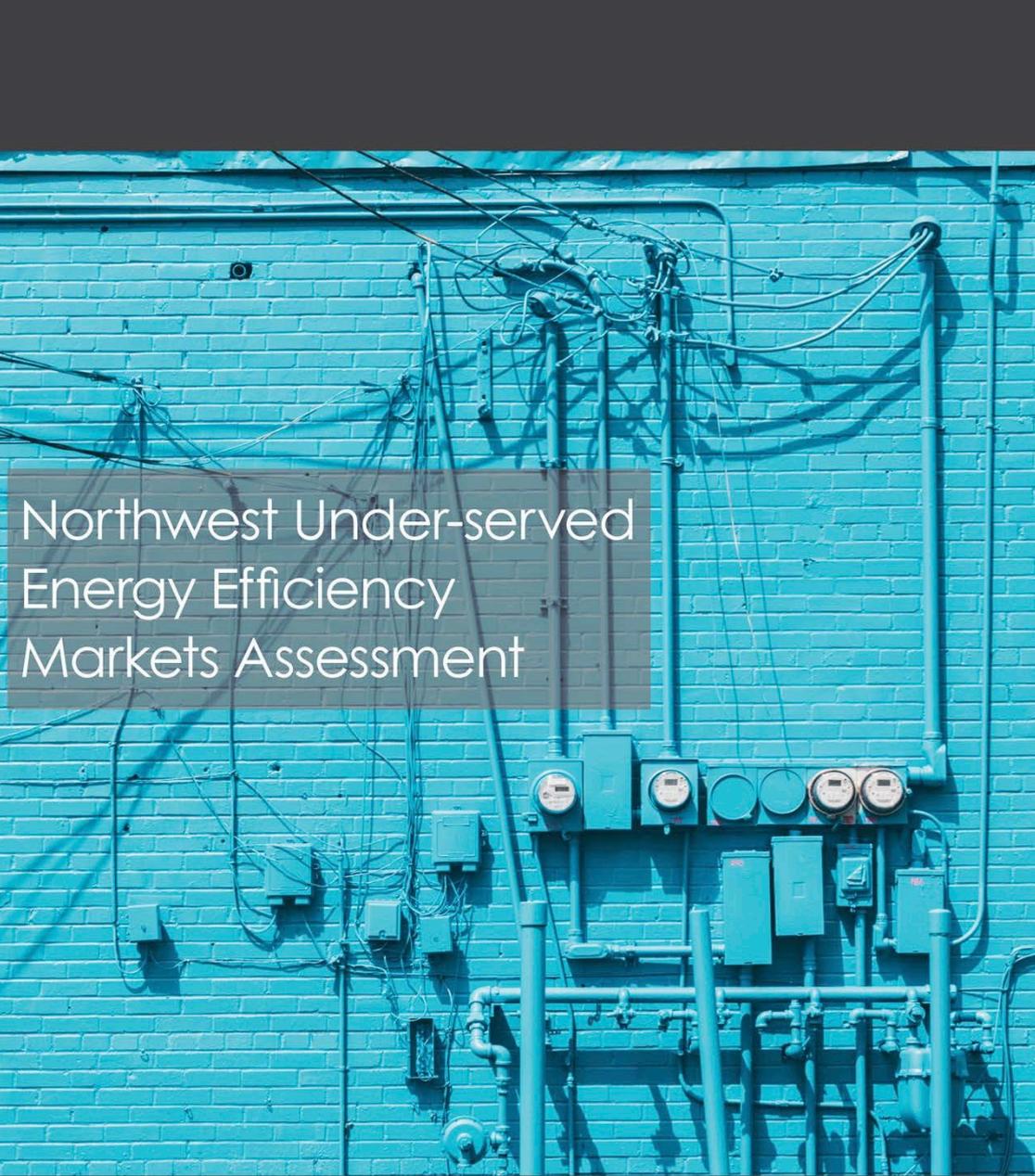
There was no public comment.

9. Meeting Adjournment

Hannah noted Energy Trust's Quarter 2 report will be released August 15. The report will be distributed to CAC, and members are encouraged to read the report and pose questions at the next meeting.

There were no changes to the June notes.

The meeting adjourned at 4:58 p.m. The next Conservation Advisory Council meeting will be held Friday, September 14, 2018.



Northwest Under-served Energy Efficiency Markets Assessment

April 2018
document 2018-5



Northwest Under-served
Energy Efficiency
Markets Assessment

What is it?

Quantitative look at participation by demographics, with comparisons to the population

First NW regional collaboration to assess program participation

Broadest assessment yet of participation in US efficiency programs



Northwest Under-served
Energy Efficiency
Markets Assessment

Why did we do it?

Can't reach all cost-effective EE if some market segments remain untapped

7th Power Plan (MCS1) directed the region to:

- 1) Identify proportionately underserved populations
- 2) Improve participation among underserved segments



Northwest Under-served
Energy Efficiency
Markets Assessment

Who did it?

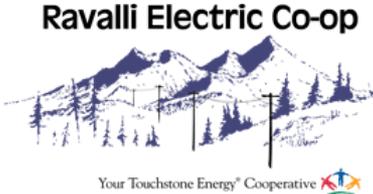
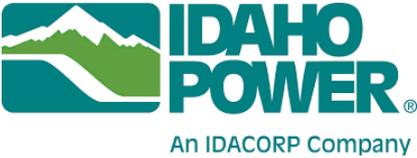
Council

- facilitated process
- wrote report

Utilities/sponsors

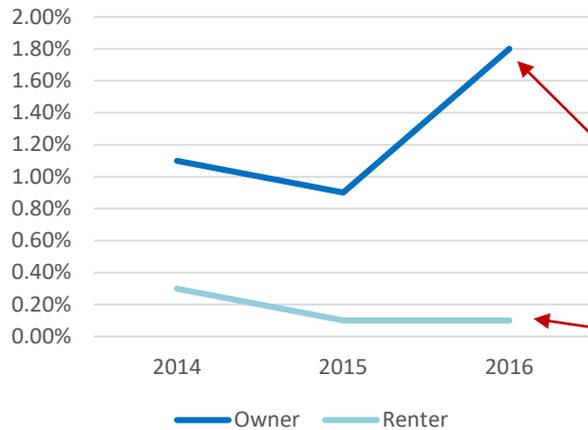
- participated in process
- analyzed data
- reported findings

Who did it?



Methodology

Participation Rate

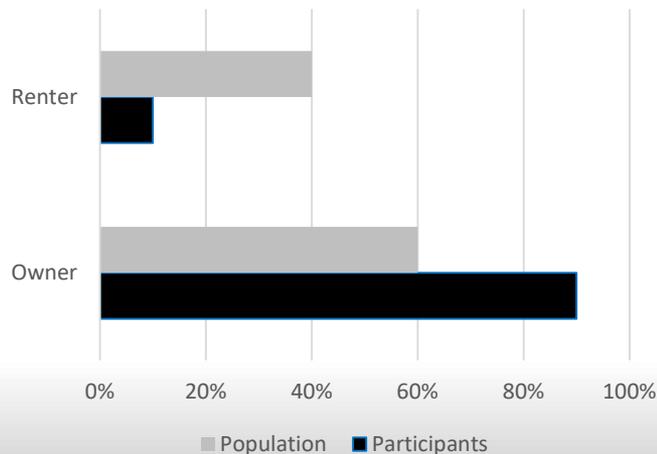


Participation Rate =

$$\frac{\text{Number of Participants in Category}}{\text{Total Customers (In Category)}}$$

e.g., in 2016, 1.8 percent of homeowners participated in programs while only 0.1 percent of renters participated in programs

Participant Distribution



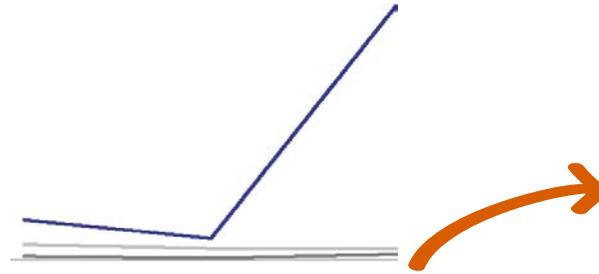
Participant Distribution = (adds to 100%)

$$\frac{\text{Number of Participants in Category}}{\text{Total Participants}}$$

Participant distribution is then compared with population distribution

Methods Two participation metrics

Participation Rate



Good for cumulative analysis

Participant Distribution



Best for short-term analysis

Methods Data sources

Participant Data

Source: utilities

Data fields:

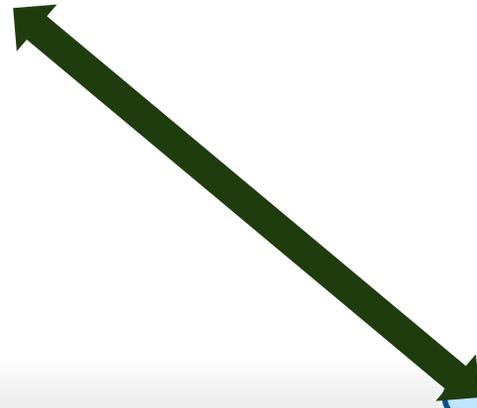
- Measures
- Incentives
- Energy savings
- **Address**

Household Characteristics

Source: third parties (i.e. Experian)

Data fields:

- House type
- Year built
- Heat fuel type
- Heating system
- Size of home
- Income
- Ethnicity
- Number of people in home
- **Address**

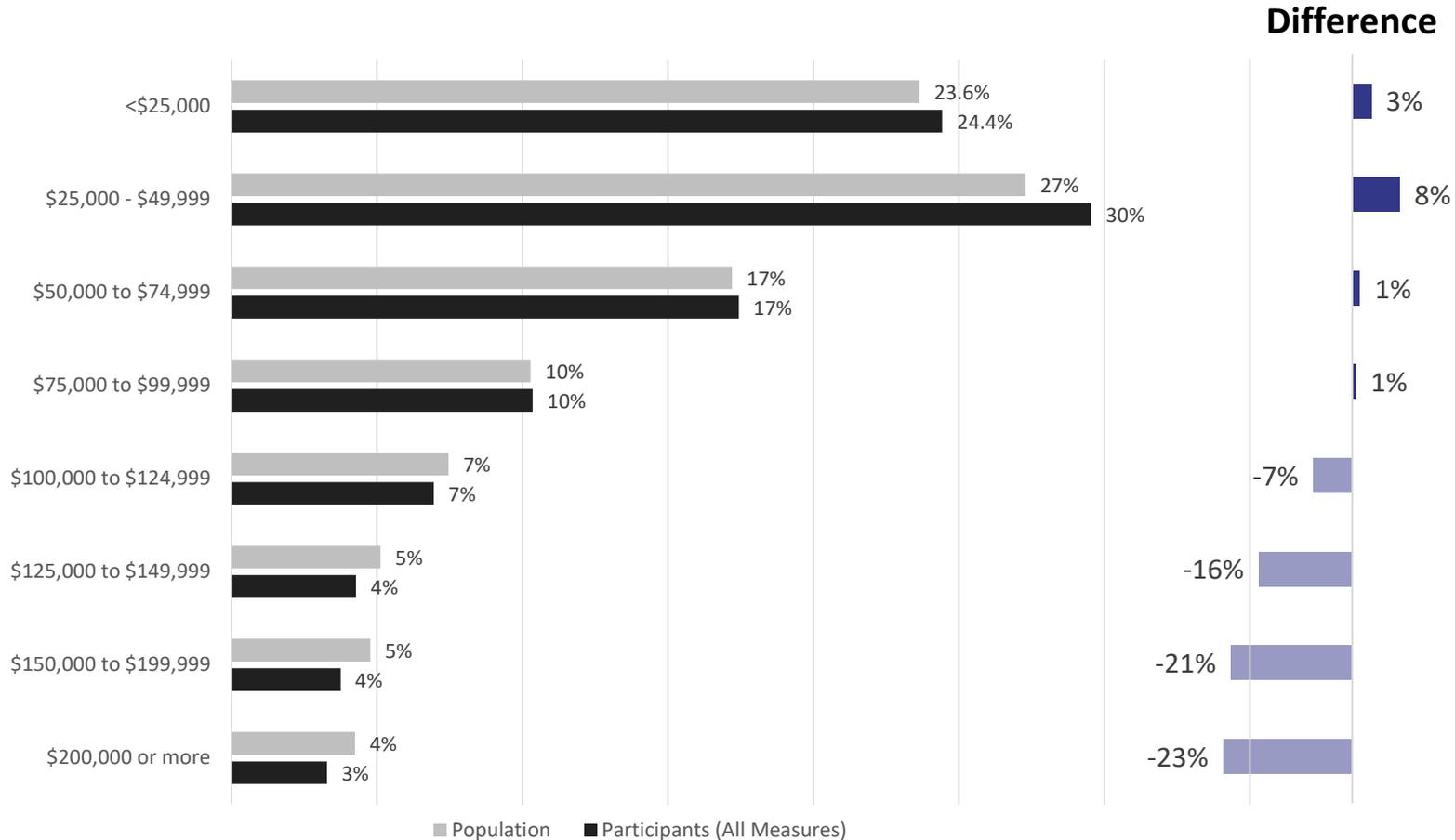


Findings Participation rates, 2014-16

- Overall** Total participation rates ranged from 1 to 8%
- Sector** Most utilities found **residential** had higher participation rates than commercial
- Type** Nearly all utilities found **manufactured** homes had the highest (cumulative) participation rate (4-20%) and **multifamily** had the lowest (<2%)



BPA: EE Participation by Income

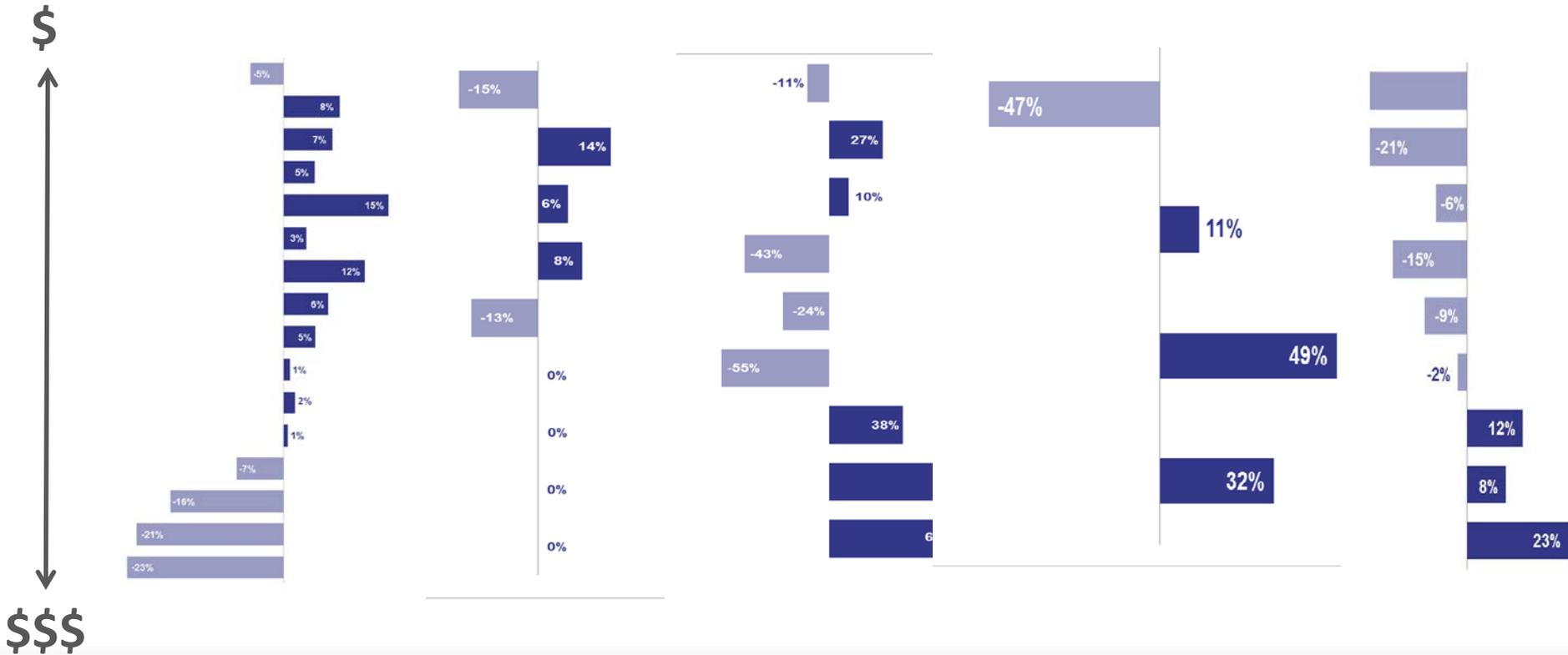


“Population” refers to the characteristics of all households in the utility service area

“Participants” are those who participated in any attributable EE program

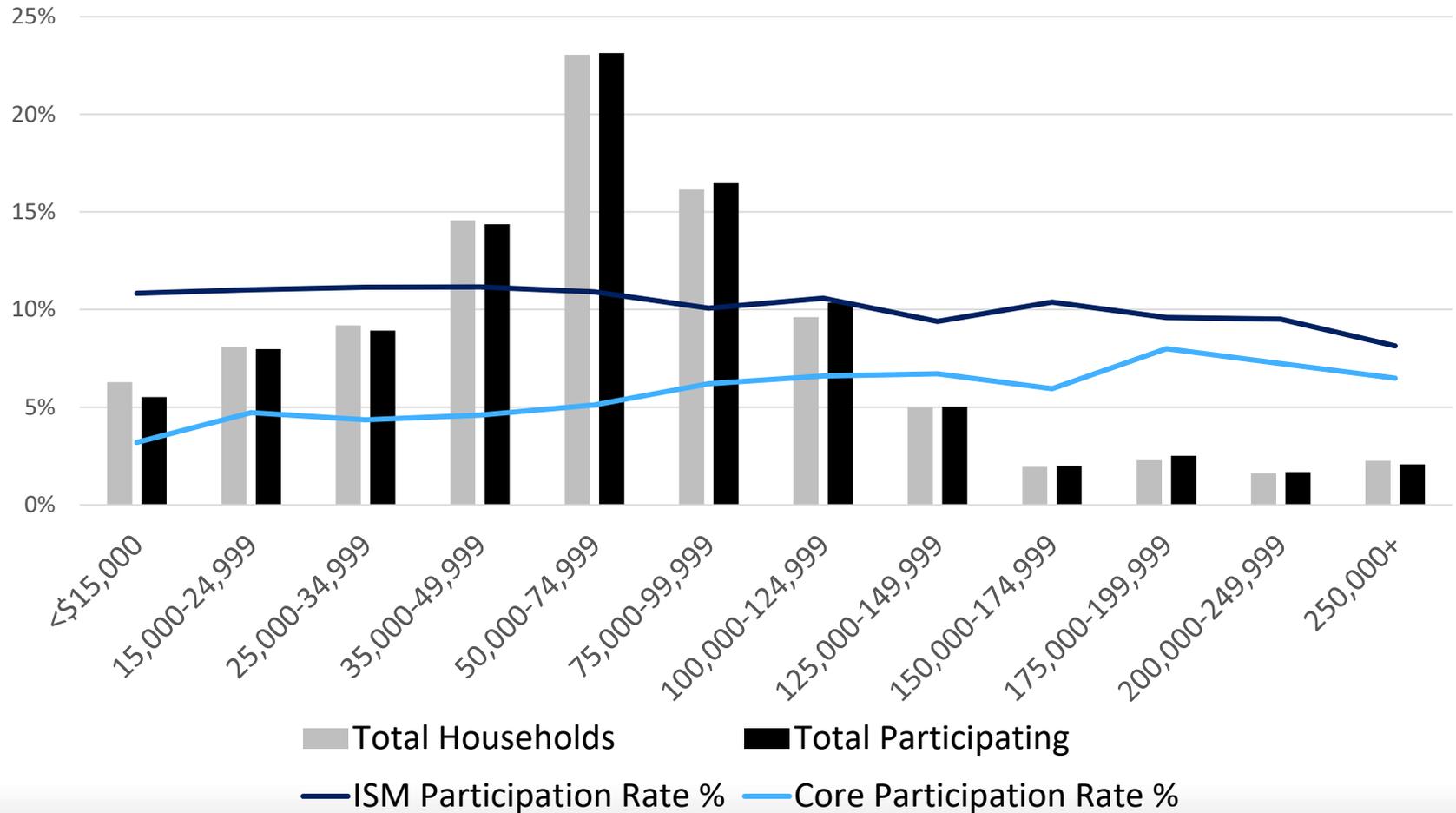
Findings Income

Differences varied by utility & are not consistent across the region





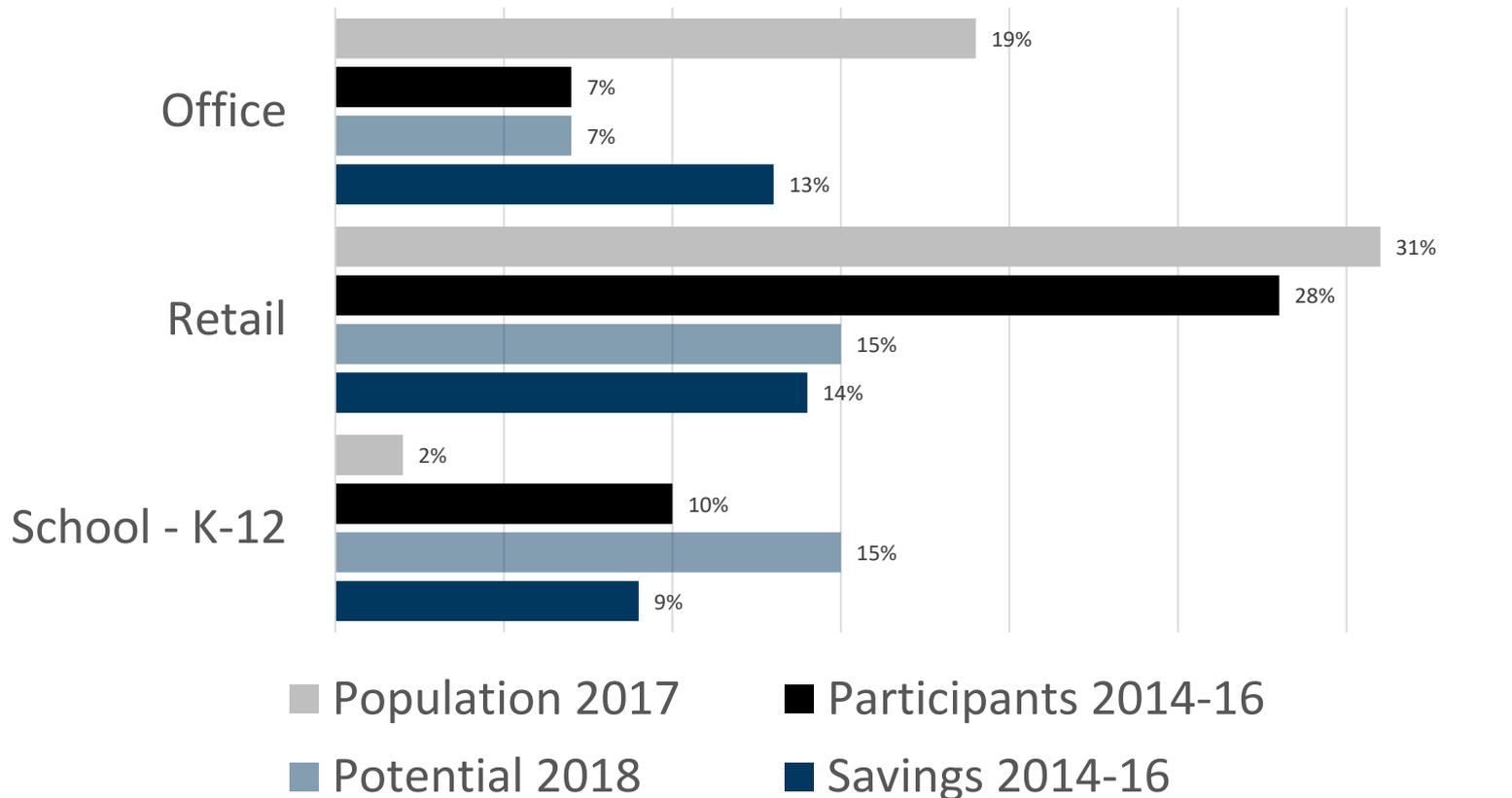
Energy Trust Oregon: Residential Participation Rate by Income





Findings: Other Metrics Valuable

(Tacoma Power looked at EE Potential & Savings)



Note: The chart shows only 2 of the 12 commercial building segments

General Findings

- Developed & demonstrated process for gap analysis
 - Relatively new activity, analysis & process
 - Data are available – but there are challenges (race & ethnicity)
 - Report summarizes methods and data sources
- Evidence of successful “targeted” programs
- Different purposes require different methods and data
 - Proportional to population is an equity consideration
 - Proportional to savings potential is a program efficacy metric
 - Equity & efficacy compete – both are important program design
- Value of continued monitoring & analysis
 - Focus changes over time and
 - Equity accumulates – Need to consider over time

Finding: Every Operator Different

Some Common Themes



■ Income

- The “low income” segments showed a wide range of results, but in general utilities have low income programs which are effective
- The highest income brackets participated at the lowest rates



■ Housing Type

- Most utilities found the multifamily segment somewhat underserved
- Manufactured housing residents typically participated in EE programs at higher rates than single family and multifamily housing residents



■ Urban/Rural

- Rural customers also appear to participate in programs at similar rates as urban customers



■ Home Ownership

- Home owners participated at higher rates than renters

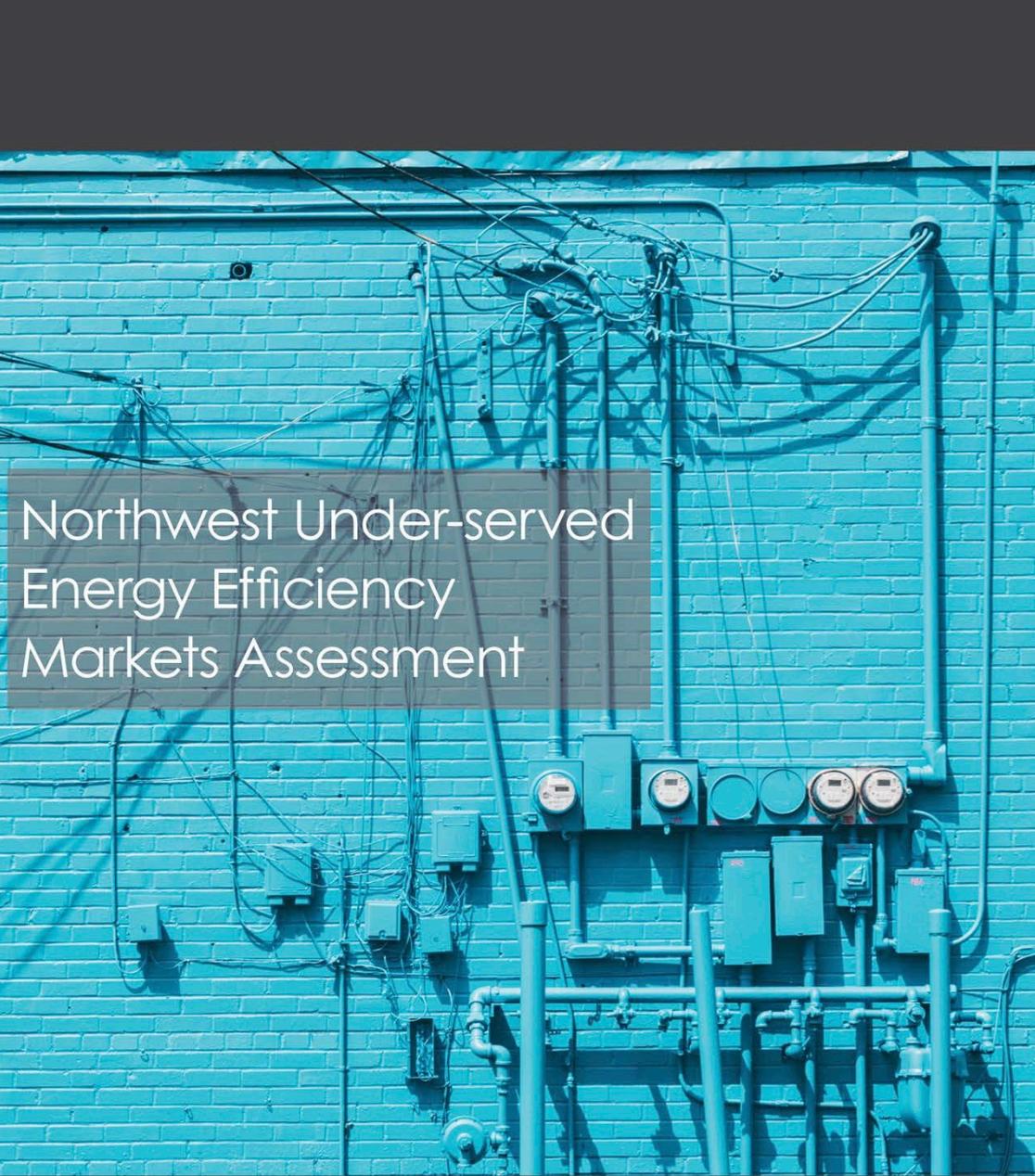


■ Commercial

- Small business customers - slightly to moderately underserved
- Schools tended to have relatively high participation rates

More Findings & Recs

- Look at the midstream delivery measures
- Look at specific measures – not solely “any” measure
- Look at low-cost vs high-cost measures carefully
- Single versus multiple measures at same site
- Look at gaps relative to savings potential
- Look at kWh & investment metrics
- Research needed into causal factors
- Include more interest groups in research topics & program design and marketing



Northwest Under-served Energy Efficiency Markets Assessment

<https://www.nwcouncil.org/reports/northwest-under-served-energy-efficiency-markets-assessment>



Diversity, Equity and Inclusion

Insights and Current Efforts

September 14, 2018

Agenda

1. Framework
2. Past Research
3. Developing Baselines to Inform Ongoing Analysis
4. Ongoing Program Activities
5. Draft 2019 Activities

Framework

Energy Trust needs to effectively engage Oregon's diverse residents and businesses in order to fulfill our core purpose of delivering cost-effective energy efficiency and small-scale renewable energy to the customers of Portland General Electric, Pacific Power, NW Natural, Cascade Natural Gas and Avista.

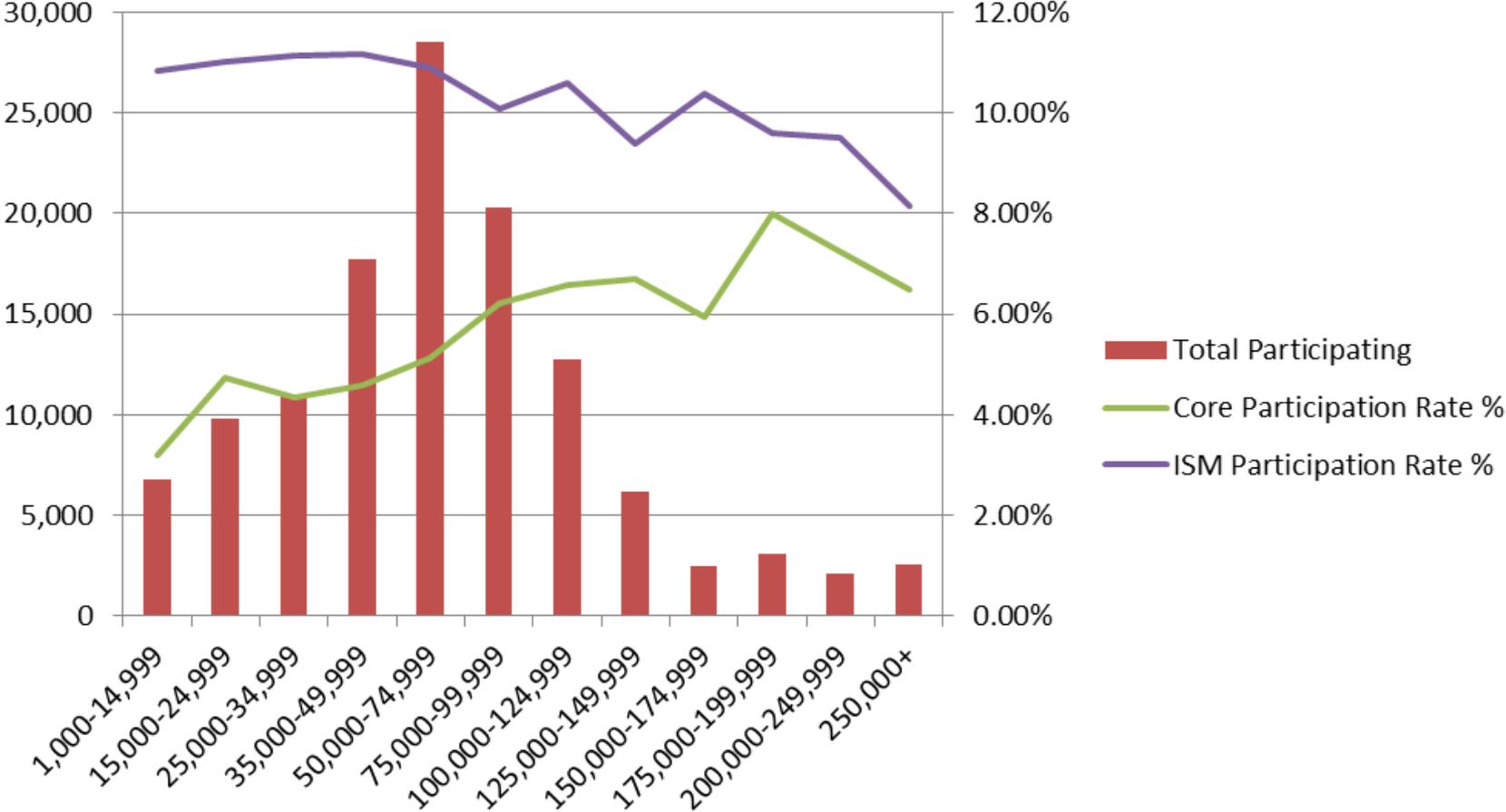
Past Research

2016 Diversity Research Plan



- <External Data Overlay
- <Customer Insights Study
- <Focus Groups

External Data Overlay

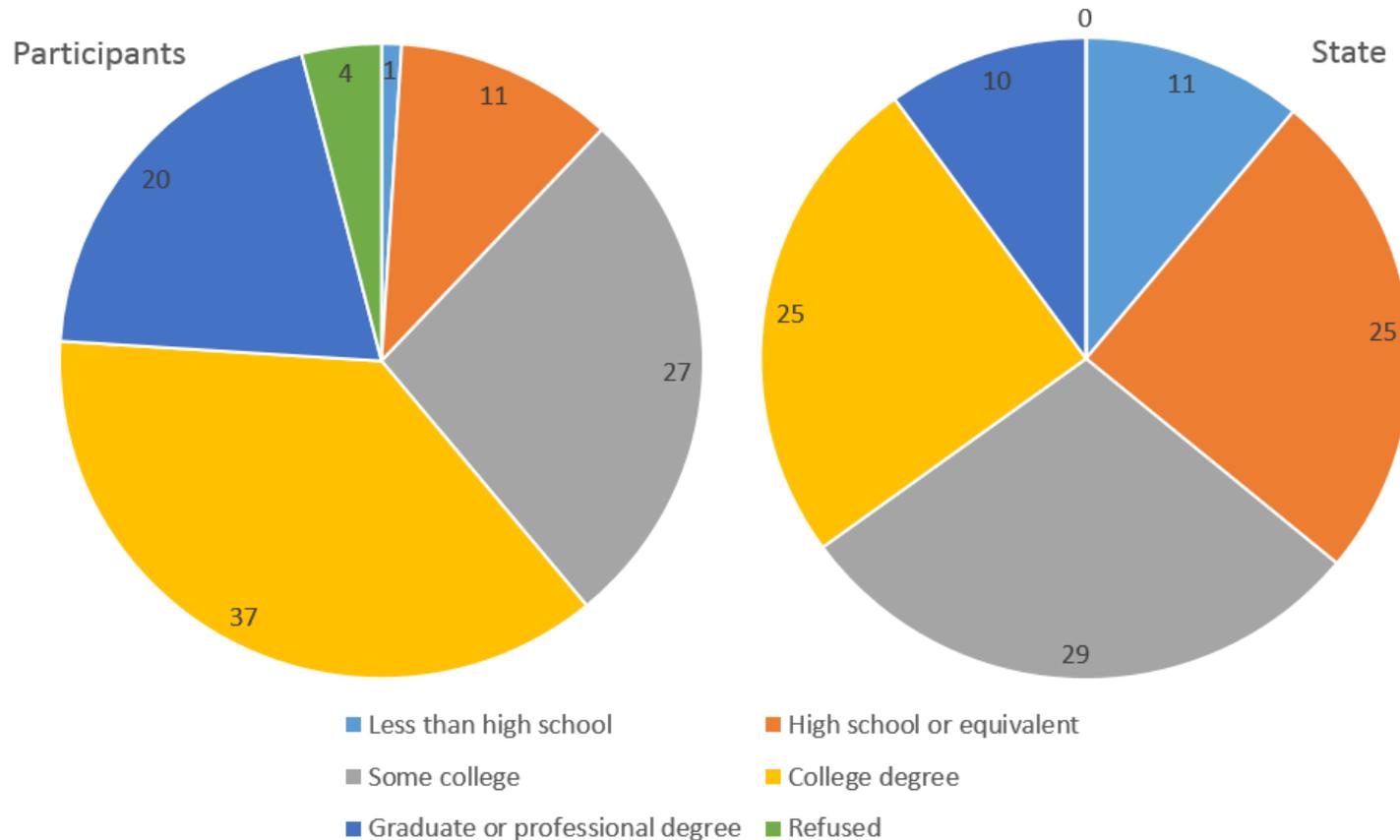


CLEAResult research using:
 2012-2016 participation and Experian data overlay (roughly 800,000 households)



Customer Insights Survey

Education Comparison



Sources: US Census, 2016 Customer Insights Study

Focus Groups

Three held, each with about a dozen Latinx, Asian-API and rural business decision-makers

A call was made for community-based liaisons or partnerships to reach business people.

- Prefer someone from own community
- Dedicated staff or develop partnerships

Collateral should be clear, informational, brief, and if targeted, respectful of the community.

- Clarity of information
- Time is short, need to make informed decisions
- Materials representative of community
- Radio, TV, targeted community publications

Developing Baselines to Inform Ongoing Analysis

DEI Data and Baseline Overview

Goal: Determine how Energy Trust has served diverse communities so far

- Used best available data to characterize Energy Trust customer diversity
- Created community diversity indicators:
 - Income
 - Race / ethnicity
 - Geography – urban and rural
- Identified high priority areas to focus DEI efforts
- Analyzed program participation rates in high priority areas compared with the rest of the service territory
- Will measure program participation progress in high priority areas

Method Details

- Geographic analysis using **census tracts**
 - Tract-level diversity indicators based on demographic data from Census American Community Survey (2012-2016)
 - Tract-level participation rates computed from Energy Trust eligible sites and participation data (2013-2017)
- Comparing participation rates between tracts with different diversity indicator scores
- Demographic and site data not connected at the site level
 - We can only say how well we've served a geographic area, not specific demographic groups
- Midstream measures not included in participation data
 - Primarily impacts the residential sector analysis

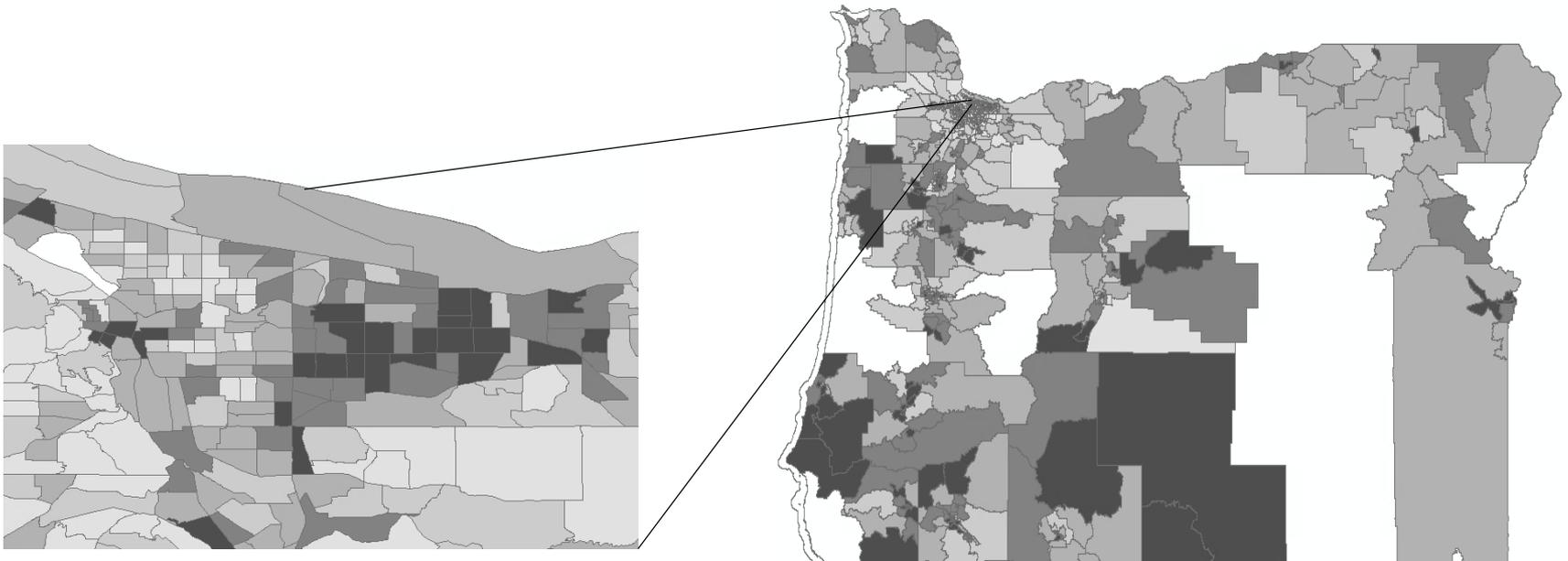
The Income Index

1-to-5 income score for communities

- 1 = most affluent areas
- 5 = least affluent areas
- Based on *adjusted median income* and average *housing cost burden*

Legend

Income Index



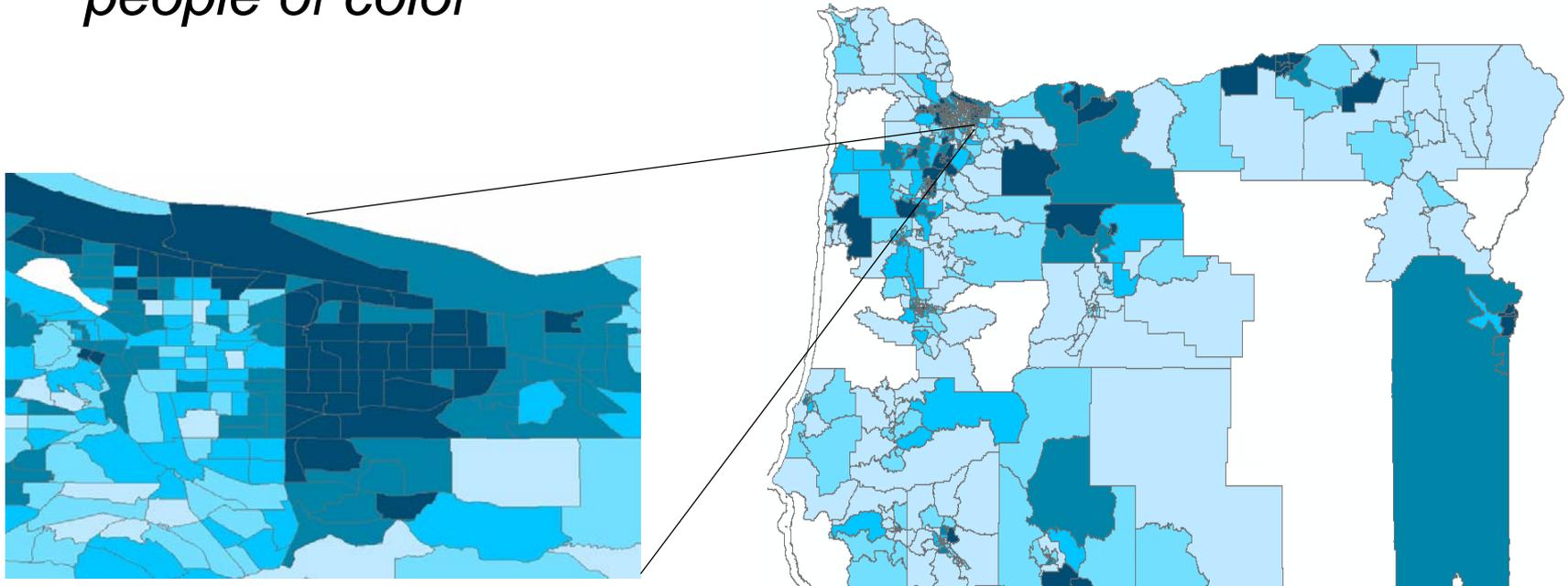
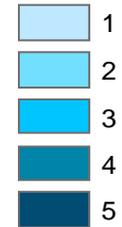
The Racial / Ethnic Diversity Index

1-to-5 racial diversity score for communities

- 1 = least racially diverse areas
- 5 = most racially diverse areas
- Based on percent of residents identifying as *people of color**

Legend

Race Index



* Defined as any race other than white/Caucasian or Hispanic/Latino ethnicity

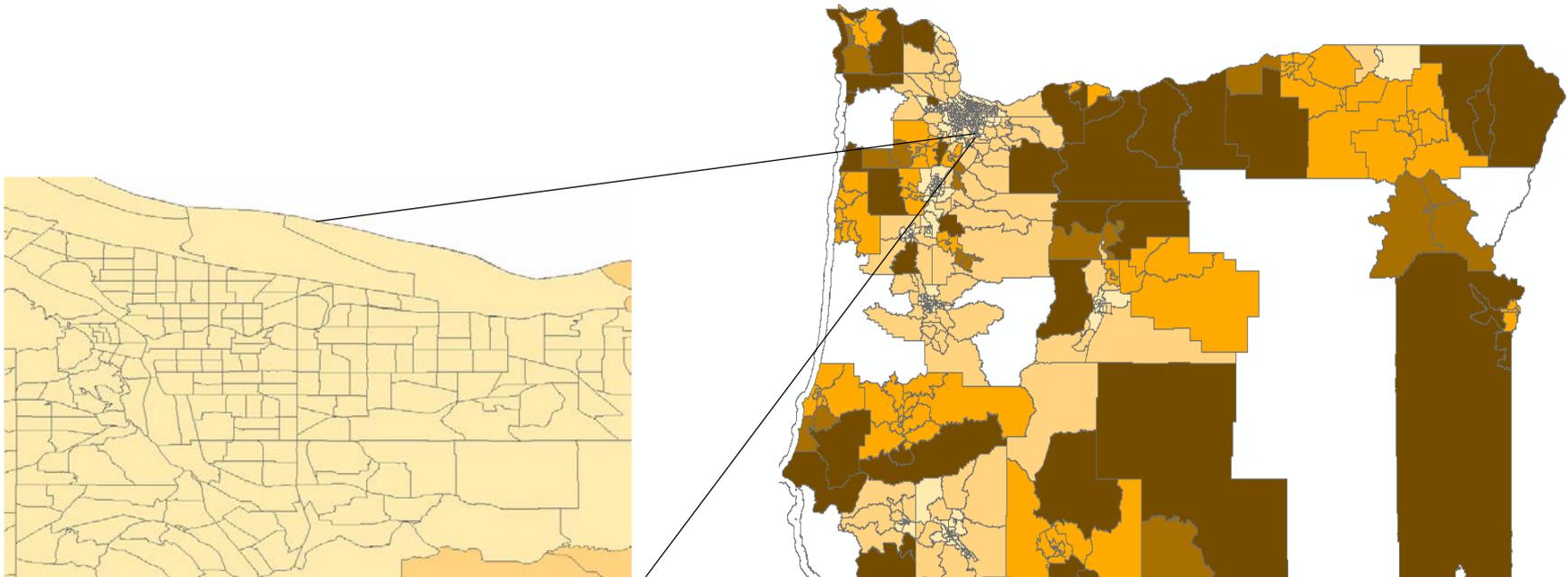
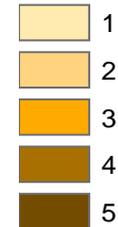
The Urban-Rural Index

1-to-5 urban-rural score

- 1 = most urban areas
- 5 = most rural areas
- Based on USDA's *Rural-Urban Commuting Area code* classification scheme

Legend

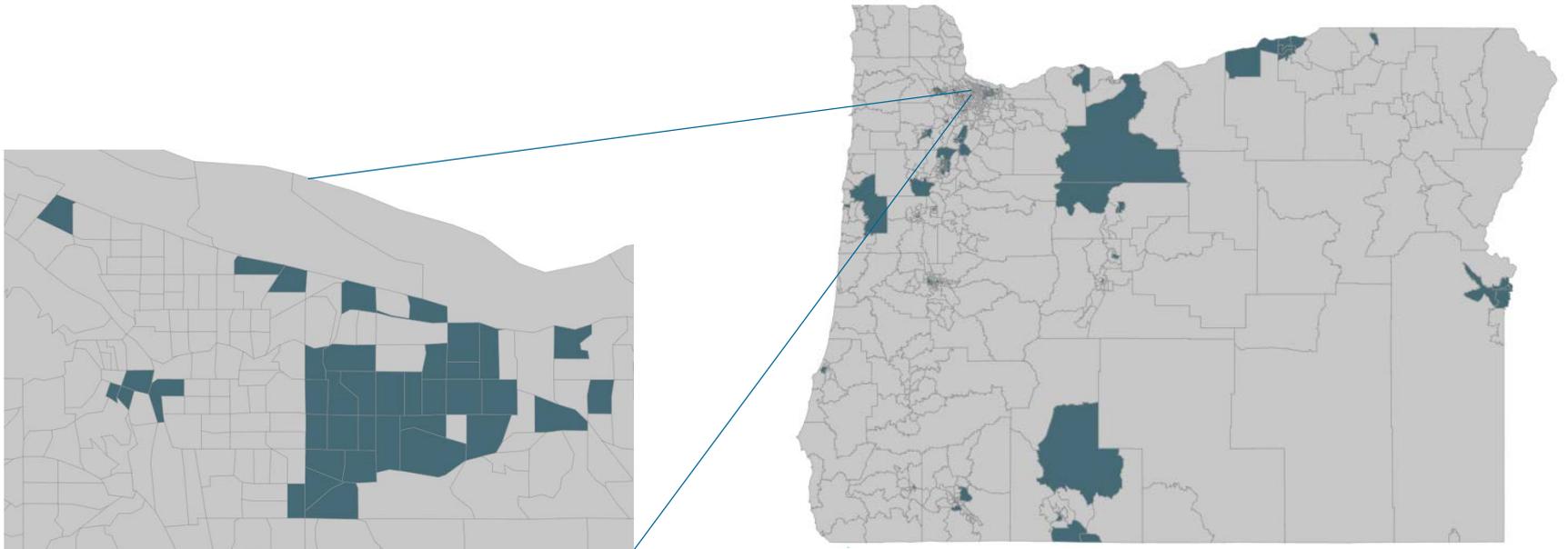
Rural Index



The Composite Diversity Index

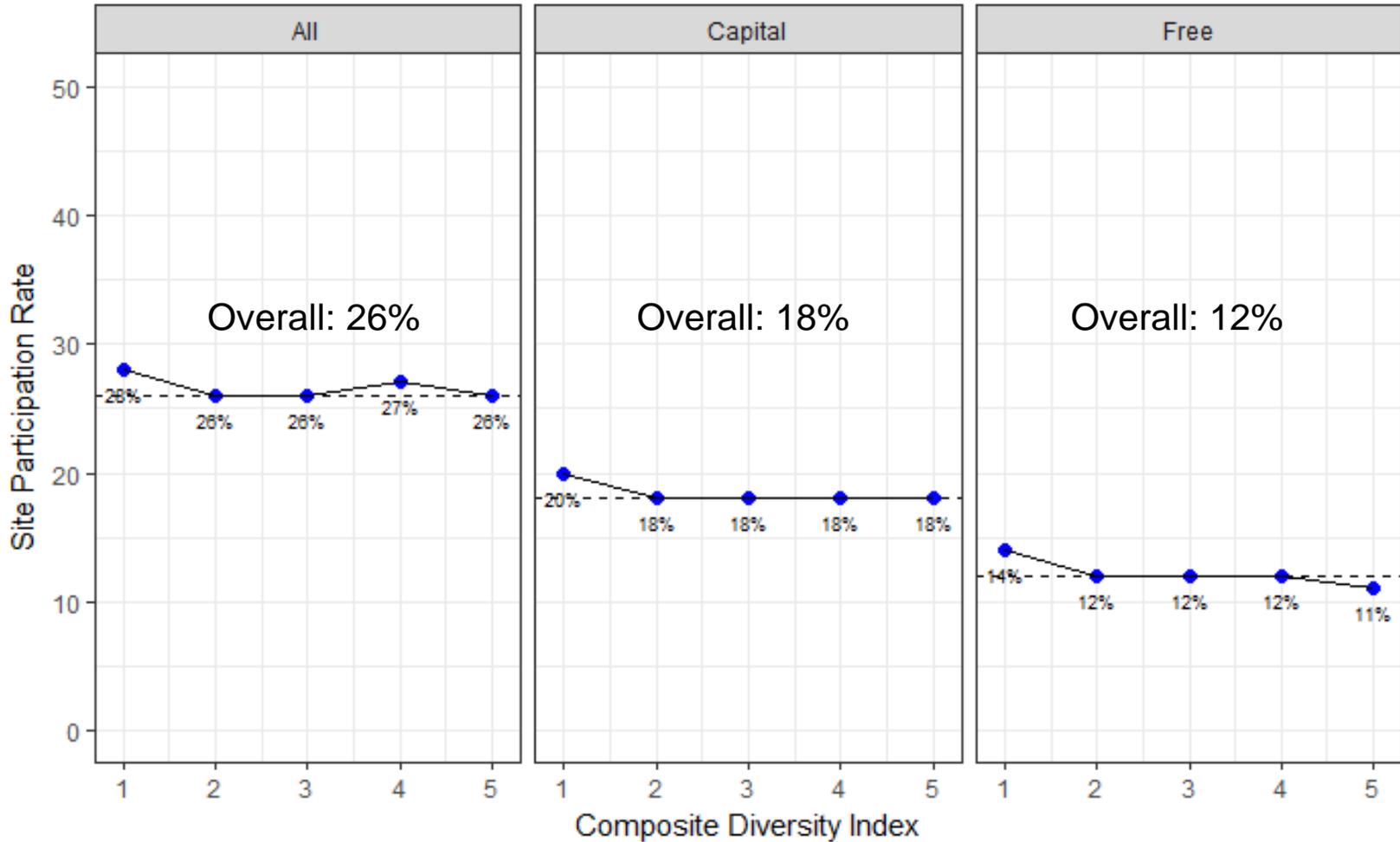
1-to-5 income and racial diversity score

- “5” indicates lowest income, highest racial diversity
- Weighted to include areas with lower income/race scores if they are sufficiently rural
- 141 census tracts (18%)



Residential Participation 2013-2017

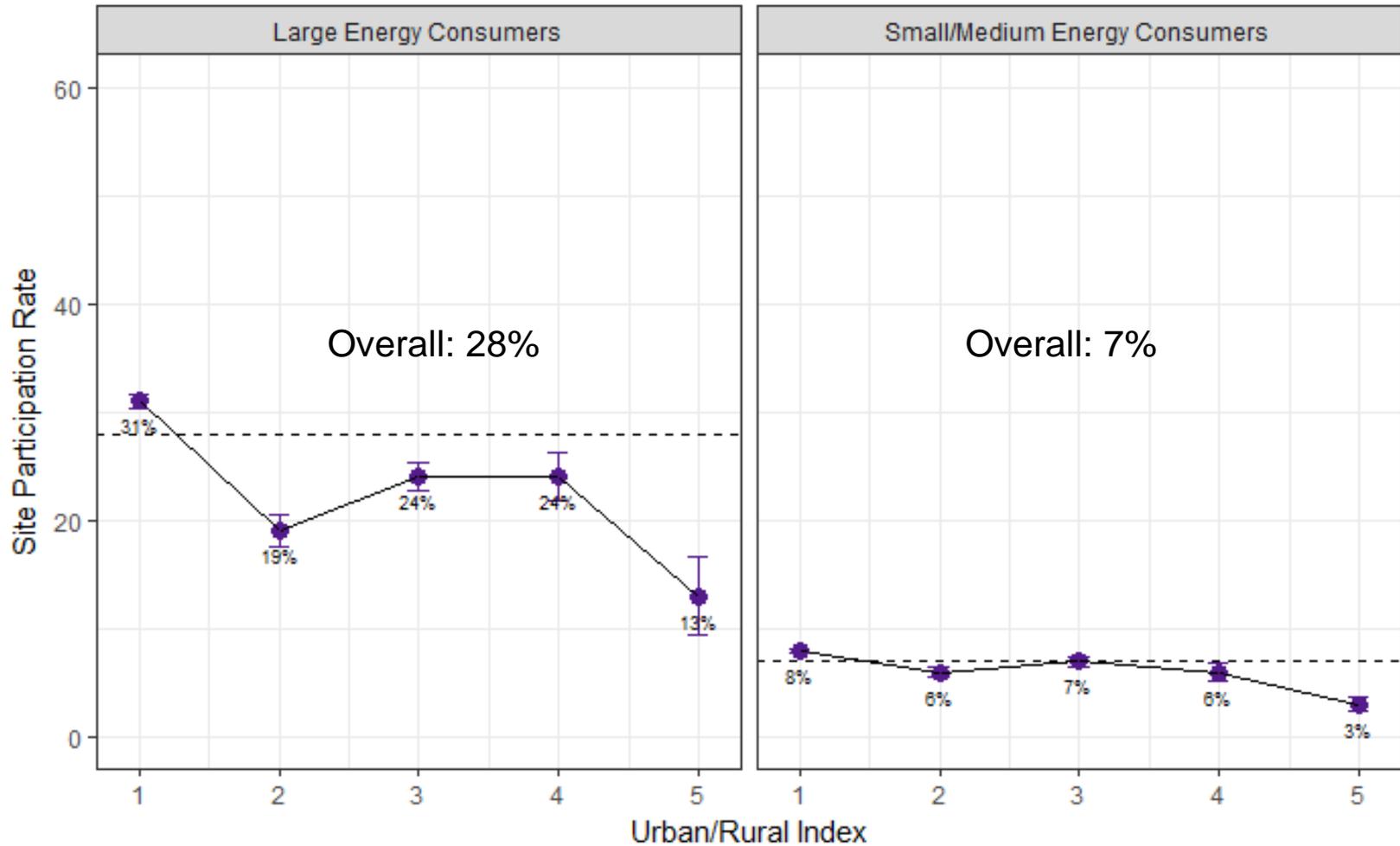
by composite diversity index score



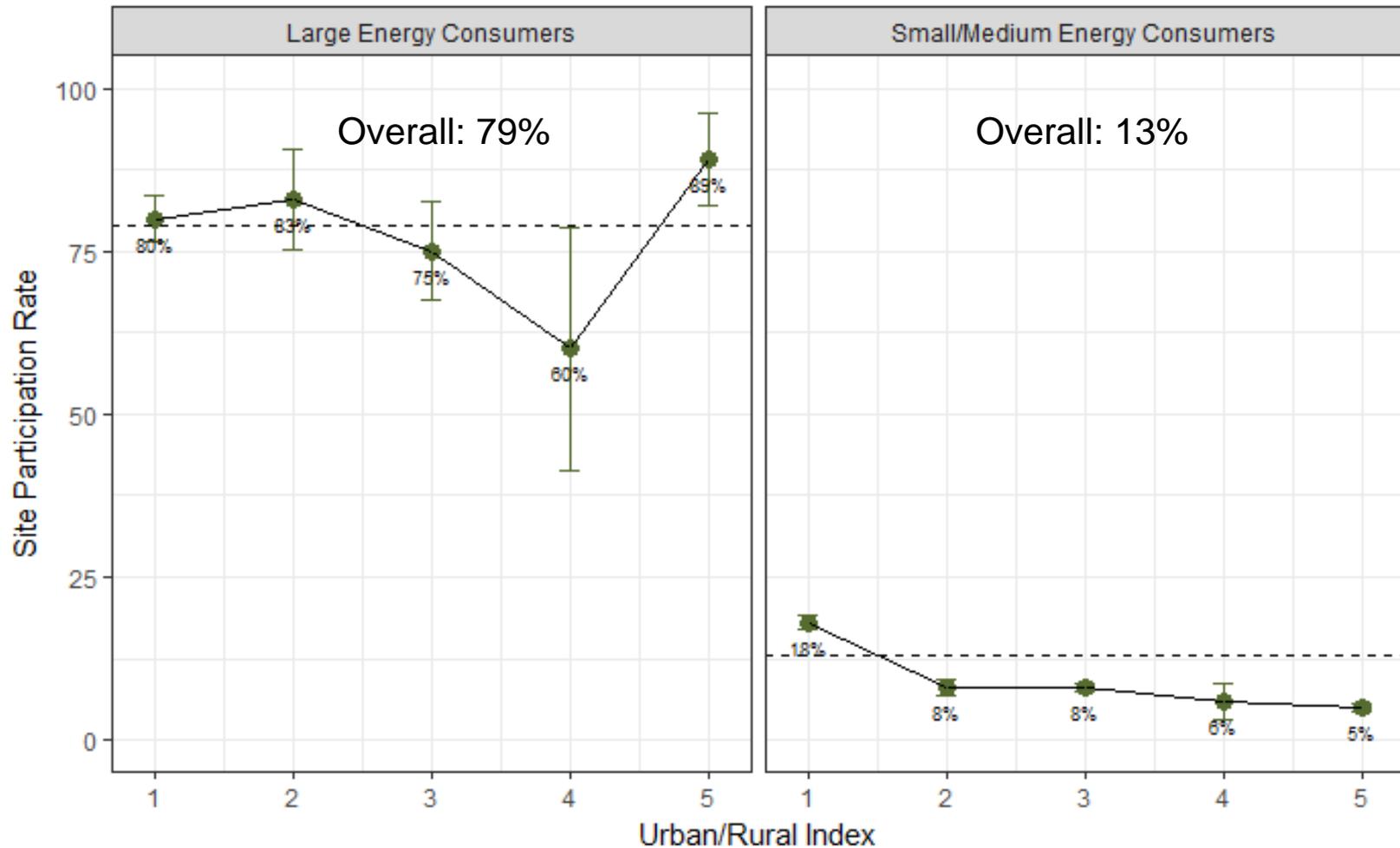
Note: Includes multifamily buildings and excludes midstream

Commercial Participation 2013-2017

by urban-rural index score



Industrial Participation 2013-2017 by urban-rural index score



Program Activities

Examples of Ongoing Residential DEI Initiatives

Existing initiatives

- Savings Within Reach
- On-bill repayment
- Coordination with Oregon Housing and Community Services

Emerging initiatives

- Community Energy Project partnership
- Manufactured home offers
- Focus groups with Spanish speakers in Woodburn



Examples of Ongoing Commercial and Industrial Initiatives

- Small Business Direct Install in target areas
- Supporting affordable housing organizations
- Regional account managers across Oregon
- Recruiting MWESB contractors to join our trade ally and design ally networks
- Engage diverse business associations
- Helping restaurants in rural and metro areas
- Outreach to Native American tribes (contractors and customers)



2019 Draft Action Plans: Implementing DEI Operations Plan

Insight on our current process:

- Review data group methodology and participation results
- Analyze opportunity areas in conjunction with market opportunities and program offerings
- Design DEI specific strategies and activities
- Determine how to measure progress and continue to refine DEI goals and offerings

2019 Draft Action Plans: Select DEI Strategies

- Continue contractor engagement
- Continue to develop non-Metro outreach
- Partner with community-based organizations, agencies and organizations
- Reach diverse and non-English speaking customers
- Further small and medium business initiative
- Target underserved housing types (rentals, affordable housing and manufactured homes)



Thank you

Shelly Carlton

Dan Rubado

Alex Novie

Energy Trust of Oregon

Diversity, Equity and Inclusion Operations Plan

Executive Summary and Introduction

Energy Trust is dedicated to helping utility customers in Oregon and Southwest Washington save energy and generate renewable power. We are committed to providing cost-effective, sustainable energy efficiency and renewable energy solutions to those we serve.

Energy Trust needs to effectively engage Oregon's diverse residents and businesses in order to fulfill our core purpose of delivering cost-effective energy efficiency and small scale renewable energy to the customers of Portland General Electric, Pacific Power, Northwest Natural, Cascade Natural Gas and Avista who fund our work. By becoming a more diverse equitable and inclusive organization, and by engaging contractors, trade allies and other partners with diverse perspectives, skills, customers and constituents, we will be better equipped to expand our customer base and deliver more affordable, clean energy.

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Achieving Our Purpose

We understand that investments in energy efficiency and renewable energy lower energy costs, cut carbon emissions and strengthen local communities—resulting in economic benefits for all. However, there is more we can do to reach communities in our service territory who may be underserved by our programs. We developed a Diversity, Equity and Inclusion (DEI) Operations Plan to better understand if and where gaps exist, and to achieve energy efficiency and renewable energy program participation outcomes across a broad range of customer characteristics, including communities of color, rural communities, and people with low and moderate incomes in all areas of our programs and operations.

The DEI Operations Plan is an important step in our continuous journey to learn and innovate, to implement new approaches that expand participation, and to evaluate our programs in order to achieve our core purpose: to deliver benefits to the utility customers we serve through energy efficiency and renewable energy.

About the Diversity, Equity and Inclusion Operations Plan

To develop this DEI Operations Plan, Energy Trust staff members engaged in a six-month planning process. The process was divided into six phases, identified in the graphic below, in which members of the Energy Trust’s DEI Committee, a cross-functional team of staff, and Management Team discussed concepts and vetted information with internal work groups to inform the plan’s development. Board members, Oregon Public Utility Commission staff, community leaders, and DEI professionals were also engaged to help craft and revise the plan and goals.



The plan outlines the process, goals, work plan, and suggestions for measurement and reporting. The appendix contains several documents that informed the plan creation and will inform plan implementation, including Energy Trust DEI Policy, DEI Committee Charter, Diversity Advisory Committee Charter, Glossary of Terms, and DEI Lens and Protocols.

This plan was developed with the understanding that feedback will strengthen the plan and resulting outcomes, and will be incorporated through a continuous improvement process. Going

forward, Energy Trust's DEI Committee will monitor implementation of the plan and incorporate new information or adjustments as we learn.

About the 2018-2020 Diversity, Equity and Inclusion Goals

We have identified 10 goals over the next three years that will set the course of our activities. We designed these goals with the specific and foremost intent of increasing participation in our energy efficiency and renewable energy programs by underserved populations. Collectively, the goals will work to further our core mission of delivering energy efficiency and clean renewable generation to our customers. Energy Trust is committed to ensuring that its programs and activities are equitably accessible to all of its customers.

We established DEI goals with the knowledge that they will be refined based on data that we must gather, and knowing we must build internal systems to strengthen our DEI emphasis in support of programs and internal operations as we seek to expand participation and accomplish our energy acquisition goals. Over the course of the next three years, 10 DEI goals will set the course for our activities.

The goals are intended to indicate that this work is a priority. We have and will continue to invest time and resources to ensure our success meeting these goals because we believe the success of our mission is underpinned by the success of our DEI work. This work is not mandated by state or federal regulations. It stems from our commitment to the utility customers we endeavor to serve, and our recognition of the importance of expanding participation in achieving our purpose.

Energy Trust of Oregon Diversity, Equity and Inclusion Operations Plan Goals

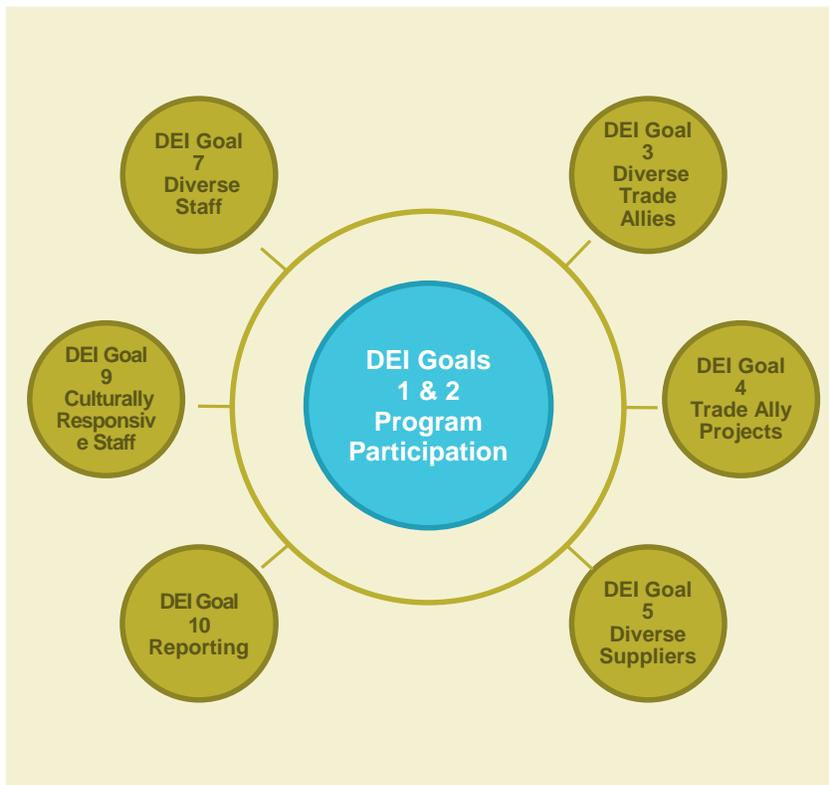
Energy Trust's core purpose is to help utility customers—people and businesses—invest in and benefit from low-cost energy efficiency and clean renewable energy. Because we view diversity, equity and inclusion as critical to expanding participation in our programs and achieving our core purpose, we established the following ten measurable DEI goals we intend to meet by 2020.

1. Increase customer participation in Energy Efficiency programs for all underserved populations by 20% by the end of 2020.
2. Increase customer participation in Renewable Energy programs for all underserved populations by 20% by the end of 2020.
3. Increase participation in the Trade Ally Network by minority-owned and women- owned business by 50% each by the end of 2020.
4. Increase the number of projects completed by minority-owned and women-owned Trade Allies by 15% by the end of 2020.
5. Increase the number of contracts executed with minority-owned and women-owned businesses by 15% by the end of 2020.
6. Increase overall market awareness and understanding of underserved populations through the engagement and deepening of relationships with 50 culturally specific/culturally responsive organizations (e.g. CBO's, municipal agencies, membership organizations, etc.) by the end of 2020.
7. Increase the diversity in recruitment and hiring of employees by 25% by the end of 2020.

8. Develop systems and support needed to collect, track, analyze and report demographic information related to program participation, program delivery and trade ally network members by the end of 2018.
9. Based on the Intercultural Effectiveness Scale (IES) survey, increase the over IES score of all staff and Board of Directors by 20% by the end of 2020.
10. Increase transparency and community engagement by publishing the DEI Operations Plan and progress towards its goals.

Why These Goals?

We identified these goals specifically because of their relational nature. Goals 3 through 10 work to build the capacity to design, develop and deliver Energy Trust's programs in ways that are engaging of a greater diversity of customers in support of Goals 1 and 2.



Goals 1 and 2: The underlying purpose of all of Energy Trust's DEI goals and related activities is to increase customer participation in Energy Trust's energy efficiency programs (Goal 1) and renewable energy programs (Goal 2).

Goals 6 and 8: Building relationships with culturally specific organizations and expanding our ability to collect, track and analyze data are foundational to Energy Trust's DEI goals and activities.

Relationships with culturally specific organizations are the most efficient and effective way to understand and reach underserved communities. These partnerships build legitimacy and trust in Energy Trust's activities.

Data analysis will help identify which customer segments are underserved, and, therefore, where Energy Trust should focus. Data provides objective information to ensure misperceptions are addressed and Energy Trust's focus is justified. Data analysis is the primary means through which Energy Trust understands whether its activities are effective.

Goal 3: Increasing the diversity of Energy Trust's Trade Ally Network ensures that businesses working with underserved customers are delivering program incentives and benefits to them.

Goal 4: Increasing the number of projects completed by diverse trade allies ensures that Energy Trust is tracking the benefits of participation in its programs and minimizing any obstacles to participation.

Goal 5: Diversifying the organizations and suppliers with whom Energy Trust contracts demonstrates a commitment to our diversity goals, and ensures that the underserved customers we seek to serve will be engaged in our delivery strategies.

Goal 7: Staff diversity "not only helps an organization get rid of its blind spots and relate to the communities it serves, but also increases creativity and makes good business sense." (Beasley, Maya A. PhD, *Beyond Diversity*, May 2017, www.diversegreen.org, p. 3.)

Goal 9: Cultural competency, as measured by the Intercultural Effectiveness Scale, is one way to measure individual and organizational readiness. Readiness is critical to ensuring that change is embraced and fully realized by an organization. It is foundational to an effective diversity strategy.

Goal 10: Transparency is a core value of Energy Trust. It is the framework we will use to communicate about all our DEI activities.

Details about each of these goals is provided in the body of the Operations Plan. For each goal, the first step will be to better understand what is meant by underserved—a step strongly dependent on goal 8 dealing with data and internal systems. Once we can better define underserved customers, we will establish baselines and benchmarks for each goal and reassess the targets and deadlines to ensure they are meaningful, challenging and achievable. Identifying quantifiable targets and establishing deadlines will help Energy Trust establish a starting point and demonstrate our commitment to these efforts. They provide a guidepost to help us better grasp the scale of this effort with the full knowledge that they are, for now, our best estimates and will be revised as we learn more.

Principles Guiding our Approach to Diversity, Equity and Inclusion Goals

Our approach to accomplishing these DEI goals is guided by these important principles:

Reinforce our core purpose:

The business case for our DEI initiative and goals is to expand participation to fulfill our core purpose of delivering benefits to utility customers through energy efficiency and renewable energy programs. We see our DEI work as critical to accomplishing our energy goals and benefitting the utility customers who fund our services.

Maintain our customer focus:

We seek to enhance our ability to effectively design programs and deliver services to all eligible customers. Energy Trust will focus on understanding levels of participation of

communities of color, people with low and moderate incomes, and rural communities. We will develop a deeper understanding of how to ensure we are effectively engaging the populations within these diversity categories. If we observe gaps, we will focus efforts on closing those gaps to expand participation and pursue additional savings and generation to fulfill our purpose.

Further our learning culture:

Energy Trust will approach DEI work with humility and openness to learning. We are not experts, but we will create opportunities for our board of directors, employees, contractors and trade allies to learn about diversity and inclusion and share their experiences and ideas to better equip the organization to accomplish its core purpose.

Aspire to meet and exceed goals:

Energy Trust is committed to achieving DEI goals so we can effectively expand participation, thereby meeting and exceeding our energy goals. As a goal-driven organization, we will work toward building internal infrastructure and support for achieving our goals, and by continuing to work with external partners to refine approaches toward that end.

Establish and deepen relationships with community-based organizations:

Energy Trust will work collaboratively with communities and recognizes the important contributions of community-based organizations to helping us accomplish our goals. We understand the importance of relationships to our learning, our understanding of data, our understanding of barriers encountered or perceived by customers, and our ability to develop more effective program approaches.

Ground decisions in data and information:

Energy Trust seeks to ground decisions in data and the best available information. We are committed to developing our DEI data analysis, data collection and reporting abilities. We also understand and value multiple ways of knowing, and we acknowledge that there are many different ways to understand and engage customers, including through the lived experiences of communities. Our decisions and actions will be based on many sources of information to provide greater understanding.

Integrate talent and expertise across the organization:

Energy Trust will approach DEI in a cross-functional manner and apply the tools and techniques learned in other applications to DEI. We operate in a complex environment, and this work requires that we work in a highly interconnected and aligned manner. As we attract and retain a more culturally aware, diverse and inclusive workforce and contractor pool, we will gain innovation, creativity and solutions that will help us better serve all customers.

Be transparent:

Energy Trust continues our commitment to transparency in our DEI efforts. We will measure and report progress to our Board of Directors and the public, welcoming continued collaboration and feedback to inform our learning.

What does success look like?

When diversity, equity and inclusion are part of who we are and how we work to reach, serve and deliver benefits to utility customers, Energy Trust will be more innovative and better positioned to meet future goals. If we are successful, we will:

- Be better equipped to serve all eligible customers
- Work with more and different contractors and expand procurement opportunities for service and products suppliers who can help us reach diverse customers
- Accomplish more energy savings and renewable generation results than we would otherwise achieve without such efforts
- Recruit, hire and support a more diverse workforce that is better equipped to bring perspectives that help us better understand and serve diverse customers
- Gain competitive and strategic insights and perspectives
- Improve employee retention in a competitive economy

Next Steps

We are motivated by the opportunities before us and ready to get to work. The DEI Operations Plan will officially launch in summer 2018, although several activities are already underway.

To implement the plan, Energy Trust will continue to engage with new and established partners, contractors and stakeholders. We look forward to learning, innovating and leading together in the years to come.

More information about Energy Trust is available at www.energytrust.org.

A handwritten signature in black ink that reads "Michael T. Colgrove". The signature is fluid and cursive, with a long horizontal line extending to the right from the end of the name.

Michael Colgrove

Executive Director
Energy Trust of Oregon



2018 Mid-year Update
Conservation Advisory Council
September 14, 2018

2018 Forecast

Utility	2018 Budgeted Goal (reportable kWh/therms)	2018 Forecast	Forecast % to Goal
PGE	318,890,267	311,464,086	98%
Pacific Power	176,807,491	178,699,568	101%
NW Natural-DSM	1,515,548	1,423,987	94%
NW Natural-Public Purpose Charge	4,139,795	4,835,679	117%
Cascade Natural Gas	547,106	520,488	95%
Avista	349,520	395,138	113%
NW Natural- Washington	359,880	383,713	107%



Follow-up on Lighting Analysis for 2019 Planning

- Analyzing LED cost-effectiveness without EISA in the baseline remains reasonable and appropriate
 - Uncertainty in EISA implementation
 - Supporting customers in choosing most efficient bulbs
 - Continuing regional coordination to completely transform lighting market
- Transition plan:
 - 2019: Still a role for Energy Trust to support LEDs
 - 2020: Support niche markets and circumstances
 - Reevaluate 2020 approach based on market trends and EISA implementation
- OPUC commissioners have indicated support for this strategy



Thank You

Peter West

Director of Energy Program

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Early Draft 2019 Program Action Plans
Conservation Advisory Council
September 14, 2018

Agenda

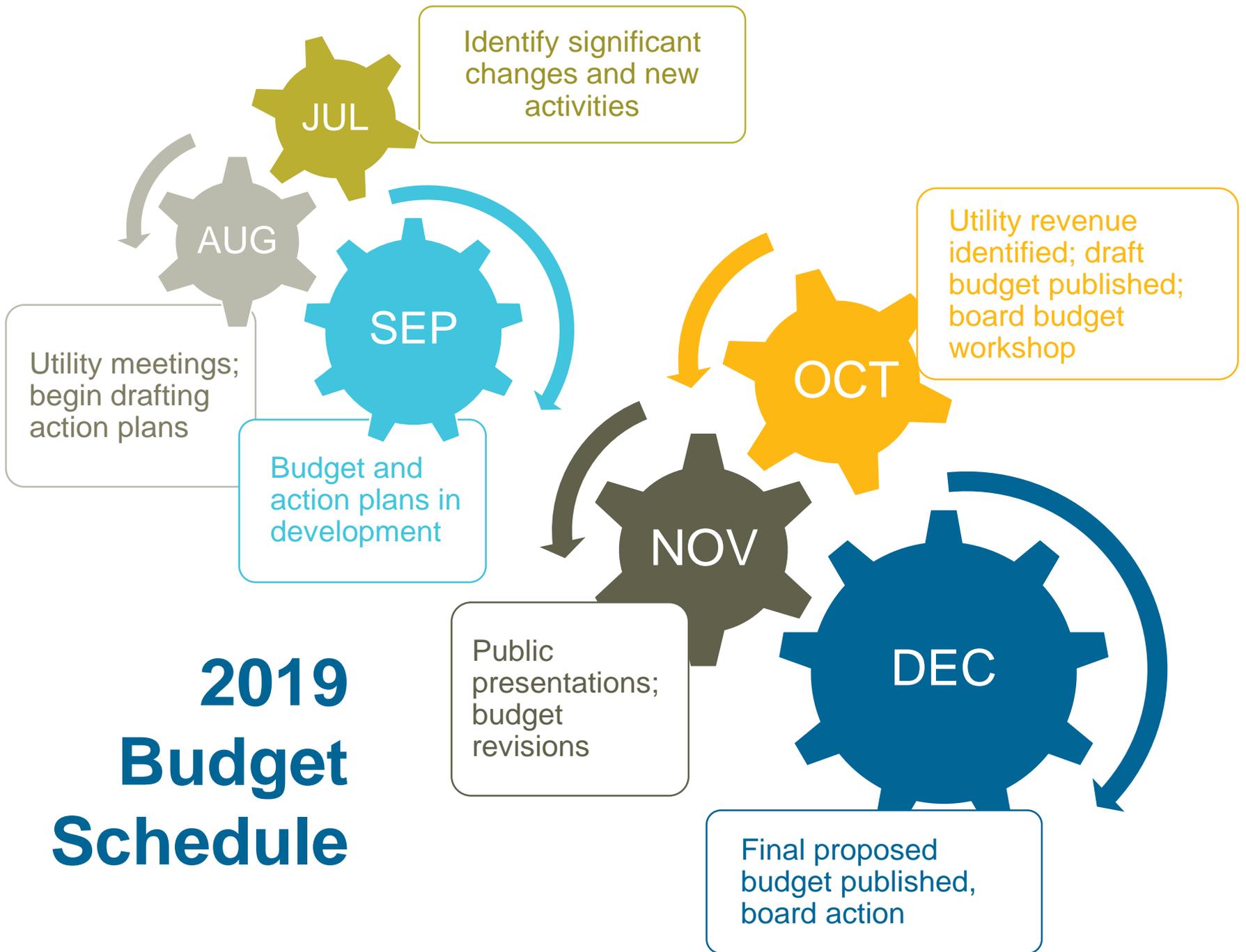
- Overview (5 min)
- Presentations on draft action plans (45 min)
 - Residential, Thad Roth
 - Commercial, Oliver Kesting
 - Industrial, Amanda Potter
- Activity (30 min)
 - Break-out sessions and Q&A with program staff
- Discussion (15 min)
 - Reconvene and discuss learnings, feedback and any requests of staff for October meeting



Objectives

1. Prepare CAC members to participate in board budget workshop on Oct. 17
2. Create a conversation around draft action plans
3. Identify any topics or follow-ups for October CAC meeting on Oct. 12

2019 Budget Schedule



Residential Sector

Residential Sector Overview

- Serves residential customers in single-family homes, manufactured homes and in new construction
- Transitioned to a consolidated program in 2018
- Restructured staff roles to reflect the needs of the consolidated portfolio
- Prepare the portfolio for reduced savings





What is Staying the Same?

- Continue to drive savings through all market channels
- Focus on water heating, space heating, smart thermostats and new construction
- Continue to expand DEI efforts

What is Changing, New or Different?

- Retail lighting is forecast to end in 2020
- Low-flow water device savings continue to decline
- Energy Saver Kits will be reconfigured by 2020
- Pilots include:
 - Pay for Performance
 - Air conditioning
 - Extended capacity heat pumps



What is Changing, New or Different?

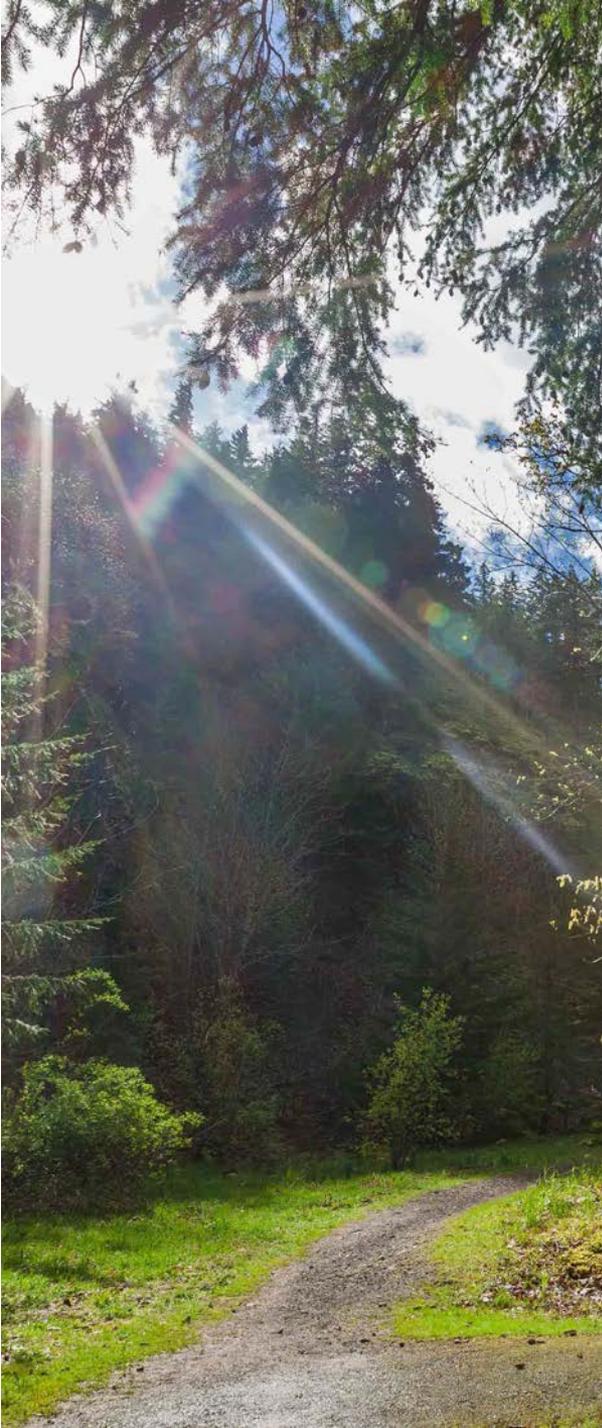
- Data driven customer engagement and marketing strategy
- Diversify delivery of measures across market channels/applications





DEI Activities

- Build relationships with new communities
- Contract with community-based organizations to reach diverse customers
- Target underserved housing types
- Expand targeted marketing and outreach activities



Potential Challenge/Risk Areas

- Addressing savings loss and program cost-effectiveness
- Retail lighting transition
- Impact of changes to avoided cost

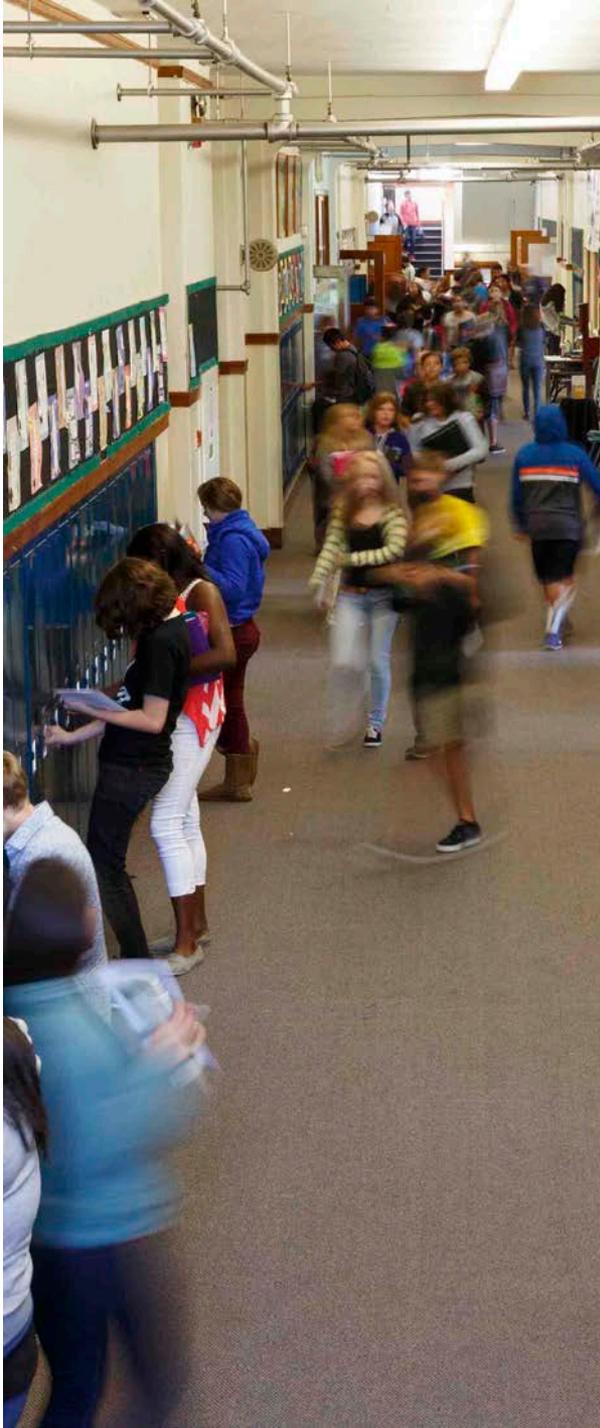




Notable Trends

- Growth in space and water heating savings
- Convergence of energy efficiency, targeted load management and demand response

Commercial Sector



Commercial Sector Overview

- **More.** Growing number of projects
- **Smaller.** Continued downward trend in per-project savings
- **More Expensive.** Increasing project acquisition cost as we reach smaller customers
- **Dynamic Lighting Market.**
- **Small and Rural Customers.**
- **Affordable Housing.** This market sector is likely to be a big player for both New Buildings and Existing Multifamily



What is Staying the Same?

- **Existing Buildings** - major elements unchanged
- **Multifamily** will continue to offer direct install, custom and standard measures and distributor buy-down
- **New Buildings** - major elements unchanged

What is Changing, New or Different?

Existing Buildings

- Refinements to SEM recruiting and processes
- Reassessing and potentially refining Pay-for-Performance
- Opportunities to leverage PACE financing
- Pilot for Advanced Network lighting controls
- More emphasis on lighting system improvements
- Launching Small Business offer targeting property managers



What is Changing, New or Different?

Multifamily

- Significant decline in direct install savings due to changes in lighting and water-saving measures
- Wall heater and water sub-metering pilots ended
- Launching program redesign for 2020



What is Changing, New or Different?

New Buildings

- Increasing some incentives to drive market ahead of code changes
- New training and technical resources
- Multicultural collaborative
- Expanding market solutions
- Emerging leaders internship



Potential Challenge/Risk Areas

Overall

- Reduced measure level savings especially lighting
- Measure level cost effectiveness

Existing Buildings

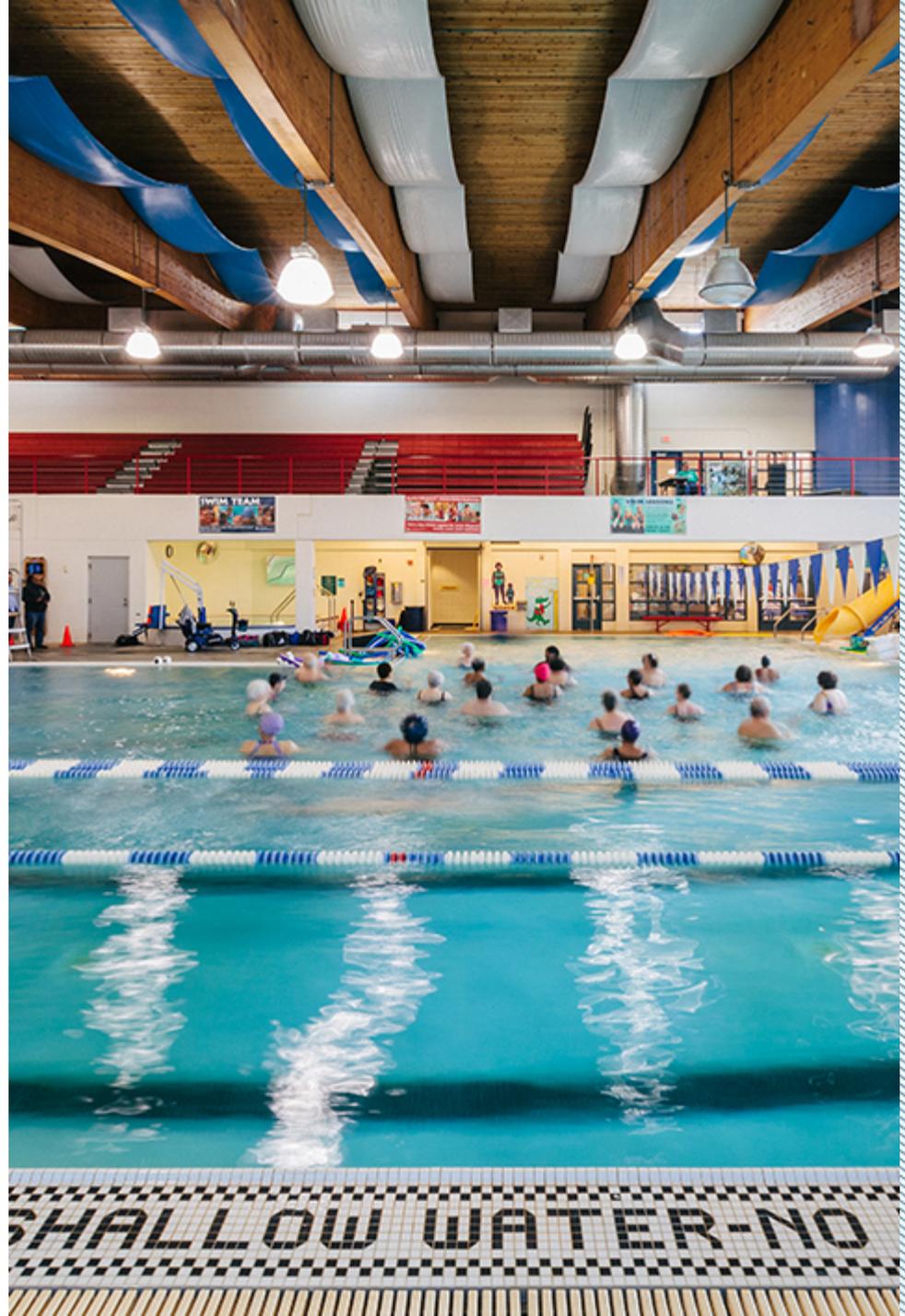
- Trade ally capacity

Multifamily

- Market saturation of larger customers

New Buildings

- Construction slowdown





Notable Trends

Existing Buildings

- Declining savings per project

Multifamily

- Anticipate reduction in the number of dwelling units served
- Distributor buy-down performing better than anticipated in Pacific Power and NW Natural territories

New Buildings

- Strong new construction market
- Data center construction down sharply

Industry and Agriculture Sector



Industrial and Agricultural Sector Overview

- Custom and SEM tracks are evolving to better serve smaller customers
- Lighting track is evolving to meet changing market
- Need to continue to drive new prescriptive measures as measure savings decrease
- Focused DEI goal: Increase program uptake with small-to-medium customers in rural communities



What is Staying the Same?

- Support targeted load management pilots
- Manage large customer spending below SB 838 caps
- Focus on increasing gas projects to reduce fluctuations in savings
- Sustain irrigation measures for famers and ranchers
- Implement marketing strategy to small-to-medium customers
- Assess evolution of cannabis sector
- Improve internal processes and systems

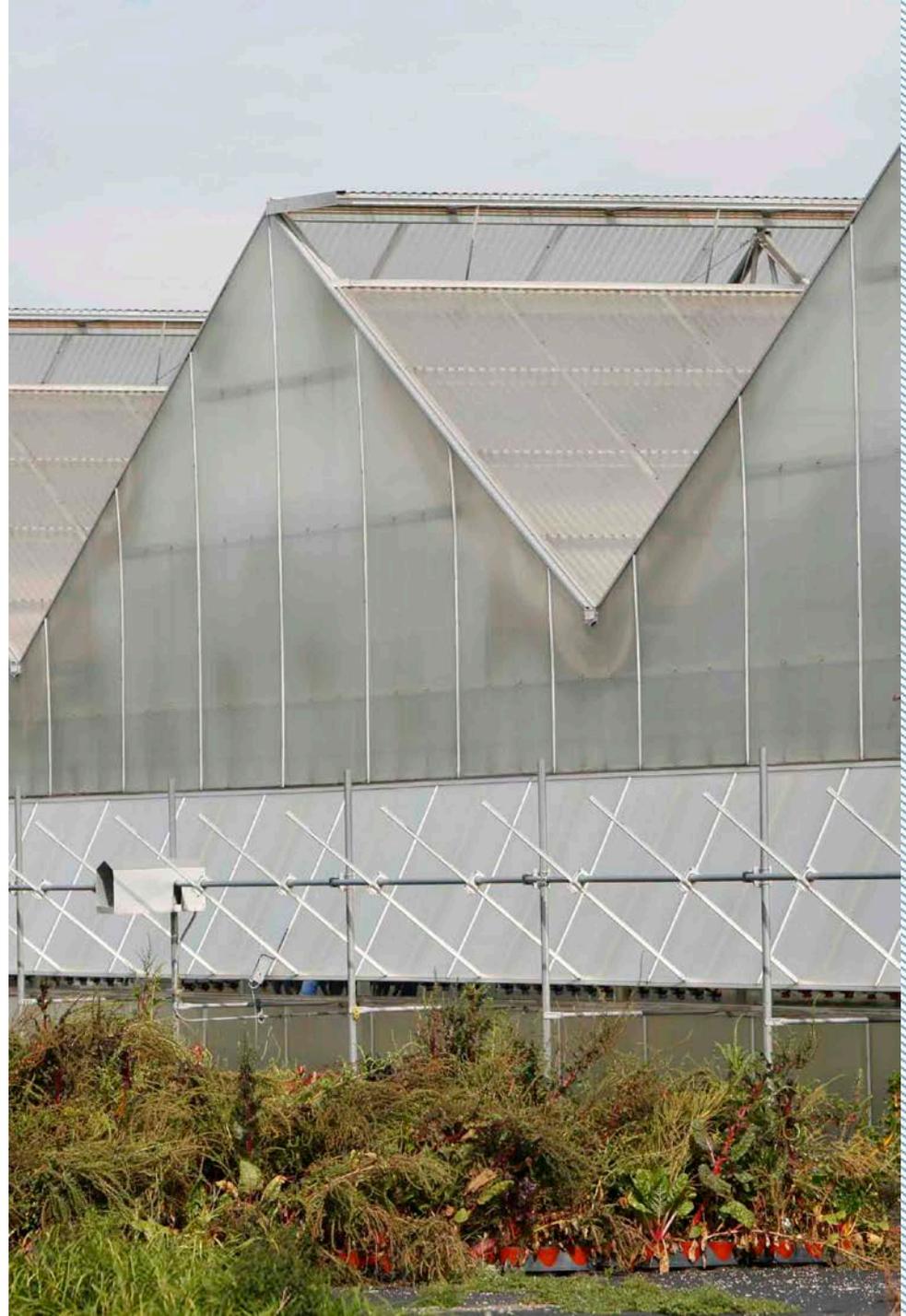
What is Changing, New or Different?

- Improve custom offerings
 - Smooth transition to new custom structure and PDC
 - Launch streamlined tech study process
 - Evolve SEM (continuous cohorts, streamlined offering)
- Improve standard offerings
 - Evolve lighting offering
 - Add new prescriptive measures
- DEI goal to drive program uptake with small-to-medium customers in rural communities



Potential Risk Areas

- Large projects can swing savings and are difficult to forecast
- SEM is harder at smaller sites
- Lighting savings dependent on market response to new strategies





Notable Trends

- **Lighting**
 - Higher percent of budget than expected
 - Strong overall with a reduction in cannabis lighting
- **Custom**
 - Greater number of projects
 - Smaller average project size
 - SEM savings going down
- **Standard**
 - Savings flat with new measures replacing measures phasing out

Draft Action Plans Activity

Q&A with Program Staff

- 5 stations
 - Residential, Existing Multifamily, Existing Buildings, New Buildings, Production Efficiency
- Choose 3 of 5 stations
 - 10 minutes per station
 - Hannah will tell you when to rotate
 - Time for CAC members to talk with program staff
 - Fill out comment cards if you would like to record a comment or have a question for follow-up
 - Public welcome to be at stations; priority given to CAC members to interact with staff
- Reconvene

Discussion

- What did you learn that is important for everyone to hear?
- Do you have specific feedback or follow-up requests for staff?
- What information would you like to have at our October CAC meeting in order to prepare for active participation at the October 17 board budget workshop?



Next Steps

- Staff will review the comment cards
 - We will endeavor to respond and/or incorporate into materials going forward
 - Feedback can inform October 12 presentation or materials on budget
- Upcoming key budget dates
 - Wednesday, Oct. 10: budget materials public; public comment opens
 - Friday, Oct. 12: CAC and RAC
 - Wednesday, Oct. 17: Board budget workshop
 - Wednesday, Oct. 31: Public comment closes
 - Friday, Nov. 30: CAC and RAC
 - Friday, Dec. 14: Board consideration of final proposed budget



Thank You

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Draft 2019-2020 Program Action Plans

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Commercial sector—Existing Buildings

Existing Buildings Program Description

Energy Trust's Existing Buildings program offers energy-efficient improvements for existing commercial buildings of all sizes and types. Incentives are available for custom projects, including capital upgrades and operations and maintenance improvements; standard upgrades; lighting upgrades; and energy management offerings such as commercial Strategic Energy Management (SEM), with incentives, tools, training, and technical assistance to help customers reduce energy use through behavioral and operations improvements.

- The **standard track** is delivered through trade allies and retailers who stock and sell equipment that qualifies for incentives. Trade ally coordinators promote the program and provide educational and general program outreach to both contractors and retailers with the goal of enabling them to utilize Energy Trust incentives to support sales.
- The **custom track** is delivered through account managers and specialized contractors working within vertical geographical market sectors to identify and implement measures that do not qualify as standard measures.
- The **lighting track** is delivered through:
 - Lighting trade allies and contractors who receive training and support from Evergreen Consulting. Lighting offerings include the midstream LED offering, street lighting, and Performance+ lighting, which seeks to move participants to a more comprehensive lighting upgrade.
 - Direct installation of lighting is delivered to under-represented small- and medium-sized businesses in targeted geographical areas through a single contractor.
- The **energy management track** includes four offerings:
 - Commercial Strategic Energy Management (SEM) uses designated energy coaches in a cohort approach to help customers drive persistent energy-efficiency improvements in large buildings or campuses.
 - Pay for Performance customers enter into agreements with contractors to implement a suite of measures with annual financial incentives for meeting energy savings targets.
 - The retrocommissioning offer provides incentives for specific operations and maintenance measures such as controls and HVAC adjustments.
 - Building Operator Certification and Energy Management Certification offers incentives for facility operators who complete a nationally-recognized certification program. Training is provided on the latest technologies and strategies for maintaining equipment, improving energy efficiency and reducing energy costs in their buildings.

2019 Strategic Focus

- Focus on development work that could determine new strategies, measures and pilots beyond 2019, including redesigning the commercial and industrial lighting approaches from equipment replacement to a whole systems-based approach.
- Achieve savings goals through services and measures designed to reach the entire range of customers from large, complex projects to small businesses throughout Oregon.
- Continue to develop new standard offerings to streamline the process for customers and trade allies that are too time-constrained to pursue custom projects. This will include converting some custom offerings to standard incentives.
- Improve forecasting methodologies through additional data analyses of program track to provide more accurate and accountable savings and budget projections

2019-2020 Program Action Plans

- Increase outreach, technical services and other support to small- to medium-sized and rural commercial customers, and trade allies in rural communities.
- Enhance commercial SEM delivery through customer data collection and tracking. Leverage resources for improved program management of goals, milestones and budget.

2019 Activities—Ongoing and New

Establish 2020-2024 Strategic Direction for Energy Trust

- Develop a five-year strategic plan for lighting to address accelerated market changes

Improve productivity and organizational efficiency

- Reduce SEM delivery costs and increase savings potential by:
 - Focusing more on coaching and recruiting at sites with high savings potential and motivated energy teams.
 - Promoting external resources and training programs for energy teams.
- Continue to streamline delivery of custom track projects to better identify and support projects with potential savings.
- Transfer the centralized PMC call center operations to local project coordinators for call handling.
- Organize the trade ally and outreach team to more effectively reach small businesses.
- Develop a web-based Energy Trust Performance Tracking Tool with less data entry and a more effective user interface to reduce efforts for model development, QC reporting, and improve evaluation review.
- Deploy new features in the existing SEM customer engagement platform to improve customer progress tracking and enable more targeted coaching efforts.
- Identify frequently-implemented custom measures that can be converted to prescriptive measures.
- Identify ways to improve the measure review processes in collaboration with Energy Trust planning staff.

Increase the flexibility and adaptability of Energy Trust

- Continue to support targeted load management efforts with utilities.
- Support PGE demand response initiative through a web-enabled thermostat pilot offering.
- Develop new marketing materials and strategies to support pilots, load management, carbon reduction and demand response initiatives.

Advance the viability, relevance and performance of programs

- Launch new pilots for 2019 and 2020 to test new measures that could offset declining lighting savings.
- Refine key account management processes to use SEM delivery design as a cohesive strategy to support customers' long-term energy needs.
- Implement the advanced lighting controls pilot to test challenges with emerging lighting control technologies.
- Investigate new approaches to direct installation that can include more measures and be cost-effective.
- Seek out other market channels to deliver program elements cost-effectively, such as broadening midstream incentives at the distributor, retailer or contractor level,
- Revise SEM intern requirements to work with customer budget cycles and adjust milestone incentives to better promote activities that drive savings and persistence of engagement.

2019-2020 Program Action Plans

Increase customer participation and awareness of energy efficiency and renewable energy benefits

- Relaunch the My Business marketing platform to focus on non-lighting measures.
- Develop marketing strategies and materials to diversify participation, especially in underserved, rural and small businesses, including tribes.
- Form an outreach subgroup focused on small/rural business market participation and penetration.
- Continue the lighting direct installation offering for small business customers in targeted areas to support equitable access.
- Prioritize strategies to increase access to solar in low-income communities; and contract with community-based organizations to reach under-served communities.
- Continue collaboration with Northwest Energy Efficiency Alliance, Bonneville Power Administration and the Northwest Power and Conservation Council's Regional Technical Forum to identify opportunities for new measures, strategies and delivery channels.
 - Increase the portfolio of measures that are delivered midstream.
 - Work with NEEA to help promote the standard measure for variable refrigerant flow with a dedicated outdoor air system.
 - Collect heat pump operation data as available to assist with NEEA's effort to create more accurate heat pump load profiles for the Pacific Northwest.
- Work with outreach and trade ally staff to identify and create more tailored marketing and cooperative marketing strategies for key customer segments and contractors.
- Optimize support to trade allies depending on trade, program knowledge and participation, and regional services.
- Provide trade allies with program support, sales and technical coaching to make be effective ambassadors for the program.
- Continue to implement SEM cohorts in Southern Oregon, Willamette Valley and the Portland Metro area. Expand recruitment in Central and Eastern Oregon cohorts.

Diversity, Equity and Inclusion Activities

Background on diversity, equity and inclusion indicators and focus areas: In 2018, Energy trust diversity, equity and inclusion committee developed indicators and focus areas based on a diversity, equity and inclusion data and baselining research to examine historical participation and set targets for programs. These focus areas relate to the three aspects of diversity—income, race and ethnicity, and rural and urban location—as described in the Energy Trust diversity, equity and inclusion operations plan developed in 2017.

In 2019, the program will incorporate methodology from Energy Trust diversity, equity and inclusion indicators into market assessments to measure progress in focus areas identified by program and diversity, equity and inclusion committee staff. Specific activities are listed below:

Small- and medium-sized businesses

- Continue providing small businesses in targeted areas with a direct install lighting offering and develop modifications to offers and processes to better target customers with existing and new offerings.
- Provide strategic direction to program management contractors to enhance the account management structure to broaden support for small business customers.
- Conduct focus groups with Spanish-speaking small- and medium-sized business owners, in coordination with Residential sector.
- Explore options for expanding Energy Performance Management offerings (e.g., Strategic Energy Management, Pay for Performance, and Retrocommissioning) to smaller customer types.

2019-2020 Program Action Plans

Customers outside of the Portland Metro area:

- Continue to develop account management and contractor relationships in Eastern, Central, and Southern Oregon for lighting and non-lighting opportunities.
- Continue to support existing customers and recruit new customers for SEM cohorts in Eastern and Central Oregon and the Willamette Valley.

Trade allies:

- Continue to engage with diverse trade allies in commercial construction and design.
- Continue to work with Multnomah County and Prosper Portland on the equity strategy for the PropertyFit/CPACE program.

2019 Key Assumptions, Risks and/or Challenges

- Market trends indicate that the lighting replacement market will be strong in 2019. Pending future regulation baseline changes and market adoption rates, 2020 could see savings reductions in lighting.
- As the program engages more rural, small business and underserved communities, savings could be relatively more expensive.
- Run rates will continue to be low, resulting in high costs per unit of savings.
- Partnerships with community-based organizations dedicated to serving diverse communities will be key.
- SEM savings continue to decrease at customer sites that are enrolled for multiple years, creating cost-effective challenges. We anticipate that the process evaluation will show increased custom savings for SEM sites and support continued cost-effectiveness.

2020 Expected Changes

- The current offer for direct installation of lighting for small businesses is not expected to be a cost-effective delivery channel after 2019. Staff is investigating other alternatives to serve this market, such as finding contractors to develop geographically-based relationships to provide incentives.
- Some lighting measures may no longer be cost-effective, and measures to replace these savings will need to be developed.
- More cost-effective measures for smaller businesses can be developed, possibly including small appliance measures for smaller businesses, such as restaurants.
- Program will continue efforts to serve more diverse business customers.
- Gas savings will continue to be a challenge based on low gas costs and current avoided costs.
- Expiring gas measures are at cost-effectiveness risk and offerings may be eliminated. Some gas measures will expire at the end of 2019, including insulation that has historically provided up to 5 percent of total gas savings, boilers that have represented up to 10 percent of gas savings, and vent hoods and cooler doors that have contributed up to 5 percent of gas savings,
- 2020 energy efficiency code updates could eliminate boilers, which are a major source of therm savings and provide up to 10 percent of gas savings in a typical year.

Commercial sector—Existing Multifamily

Existing Multifamily Program Description

The Existing Multifamily program serves existing multifamily structures with two or more dwelling units across diverse market segments, including market rate housing, affordable housing, assisted living facilities, campus housing facilities, homeowners associations and individual unit owners.

Offerings include free installation of LEDs, showerheads and faucet aerators, and distribution of energy-saving advanced power strips in tenant units. Incentive offerings include common-area lighting upgrades; incentives for standard measures including HVAC equipment, water heaters, weatherization, appliances and foodservice equipment; midstream incentives provided to distributors for qualifying equipment and lighting measures; and incentives for custom projects.

The program is delivered through an account-management approach with Energy Advisors across the state developing customer relationships and providing support to identify and complete projects. The program also offers technical and educational services such as free walkthrough surveys, technical analysis studies and a free online benchmarking tool.

Lockheed Martin is the Program Management Contractor (PMC) for Existing Multifamily. Lockheed Martin also subcontracts with CLEAResult to deliver the direct installation of energy-saving products, and with Evergreen Consulting to deliver the common area lighting track. The program also works closely with trade allies and distributors to drive efficiency upgrades.

2019 Strategic Focus

- Expand participation in market segments and regions where participation has historically been lower, using market and program participation data analysis and customized marketing and outreach strategies.
- Foster long-term relationships with customers to drive repeat participation and deeper energy savings.
- Continue to refine and pursue strategies to support targeted outreach and engagement opportunities, develop deeper understanding of various customer segments and regions, and support data-driven marketing and account management strategies.
- Enhance relationships with market actors and stakeholders, including trade allies, distributors, manufacturers and partners such as community-based organizations and municipal and regional entities. Include focus on regions with lower representation, to ensure equal access to program offerings across all of Energy Trust's territory.
- Seek new savings opportunities by monitoring new technologies and conducting field tests and pilots.
- Emphasize cross-program collaboration opportunities to reach broader groups of customers through joint efforts and messaging. Continue to maintain alignment with other programs on offerings and messaging wherever possible to streamline cross-program participation and reduce customer confusion.
- Enhance engagement strategies and services for affordable housing and low-income customers.
- Explore opportunities to directly engage with and serve renters.
- Develop customized strategies to engage with customers of various sizes, types and locations throughout the state.
- Develop innovative program design strategies for 2020 to enable the program to adapt to a range of measure changes and market shifts, to maintain a viable and cost-effective program to serve multifamily properties.

2019-2020 Program Action Plans

2019 Activities—Ongoing and New

Sustain accessible, transparent and effective management and administration of cost-effective programs and services

- Assess opportunities for program redesign to maintain a resilient and long-term cost-effective program, through reviewing and optimizing program offerings, delivery mechanisms, measure mixes and incentives, and go-to-market strategies. Redesign efforts will involve input from utilities and stakeholders and more in-depth analysis of market and program data.
- Conduct an Existing Multifamily process evaluation, which will identify program successes and areas for improvement and inform 2020 program redesign opportunities.

Establish 2020-2024 Strategic Direction for Energy Trust

Improve productivity and organizational efficiency

- Continue to collaborate with Planning and Evaluation team to create additional operational and organizational efficiencies related to measure development.
- Simplify program forms and processes to meet customer needs, especially for direct installation enrollment and portfolio managers installing measures at multiple sites. Launch redesigned prescriptive forms in Q1.
- Implement electronic signatures where possible to streamline participant form submissions and reduce the time it takes for participants to return applications.
- Pursue additional online improvements such as incentive applications and enrollment and customer intake forms.

Increase the flexibility and adaptability of Energy Trust

- Seek new initiatives and pilot opportunities to broaden the Energy Trust reach and scope of services. These may arise from developing offerings for affordable housing, tenant engagement strategies, potential measure development opportunities, or testing new delivery methods.
- Identify and assess potential new measures, supporting measure development and monitoring the market for new technologies and research.

Advance the viability, relevance and performance of programs

- Develop transition strategies for the anticipated discontinuation of the current direct installation delivery model in 2020, when direct installation of LEDs in tenant units will likely not be cost-effective. Identify alternative cost-effective approaches to continue to offer showerheads and shower wands, faucet aerators and advanced power strips.
- Optimize the benchmarking offering to provide customers with actionable reports that help them prioritize property improvements and track impacts. Assess opportunities for different benchmarking offerings or approaches as alternatives to the current online tool.
- Explore new or expanded offerings for affordable housing participants to encourage comprehensive upgrades. This could be through incentives, potential expansion of Savings Within Reach to multifamily customers, or other new services.
- Ensure that program offerings are available and accessible for all multifamily ratepayers, through developing strategies and offerings to reach customer groups with lowest participation rates, such as small multifamily properties and customers outside of metro areas.
- Design strategies to ensure service to renters in multifamily properties and seek to overcome the split incentives barrier.
- Support targeted demand-side management efforts with utilities, as needed.

Increase customer participation and awareness of energy efficiency and renewable energy benefits

2019-2020 Program Action Plans

- Maintain account management approach with energy advisors who conduct direct outreach to property owners and managers, including dedicated representatives located in Central Oregon and Southern Oregon.
- Deepen relationships with customers through re-engagement strategies to drive repeat customer participation.
- Continue to focus on enhancing relationships and uptake with distributors to drive midstream incentives for appliances, water heating and HVAC equipment, with incentives provided up front to customers. Explore additional partnership or promotional opportunities with distributors to drive program participation.
- Continue to deliver energy-efficiency workshops for multifamily customers, presenting relevant information based on market segment and region.
- Increase trade ally driven program activity through enhanced trade ally support, one-on-one engagement and educational resources, and encouraging use of business development funds.
- Continue to provide free direct installation of LEDs, showerheads and faucet aerators, and distribution of energy-saving advanced power strips in individual dwelling units.
- Promote common-area lighting solutions, with outreach emphasis on smaller multifamily properties.
- Coordinate with the Residential program to jointly drive smart thermostat adoption in both single-family and multifamily homes, through efforts such as online instant discounts and supporting PGE direct installation of thermostats.
- Assess opportunities to further expand offerings with financing repaid through utility bills, building on 2018 efforts that expanded eligibility for heat pump on-bill repayment offerings to multifamily unit owners.
- Support multifamily customers enrolled in commercial Strategic Energy Management.
- Continue to refine program design and outreach strategies by incorporating lessons learned from market analysis and data-driven program outreach, including identifying key areas of opportunity and tailoring outreach and messaging based on market segment and region. Conduct secondary research to identify opportunities for increasing participation in specific market sectors and customer groups.
 - Simplify requirements and increase distributor motivation to participate and explore ways to leverage midstream incentive strategies across programs.
 - Assess the online tool (GreenPSF) enabling customers to solicit multiple bids for custom projects through a competitive online request for proposals process. Determine if this service is effective in increasing project close rates and decreasing timeframes for custom projects.

Diversity, Equity and Inclusion Activities

Background on diversity, equity and inclusion indicators and focus areas: In 2018, Energy trust diversity, equity and inclusion committee developed indicators and focus areas based on a diversity, equity and inclusion data and baselining research to examine historical participation and set targets for programs. These focus areas relate to the three aspects of diversity—income, race and ethnicity, and rural and urban location—as described in the Energy Trust diversity, equity and inclusion operations plan developed in 2017.

In 2019, the program will incorporate methodology from Energy Trust diversity, equity and inclusion indicators into market assessments to measure progress in focus areas identified by program and diversity, equity and inclusion committee staff. Specific activities are listed below:

- Include targeted efforts to reach high energy users within our efforts for diversity, equity and inclusion focus.
- Continue to support affordable housing organizations and develop new offers and strategies to meet their energy efficiency needs.

2019-2020 Program Action Plans

- Continue to explore possible offers to support low-income multifamily renters, including alternative approaches to determining value for services delivered to this population.
- Develop outreach tactics for customer groups with lower participation rates, such as smaller multifamily properties and customers outside of the Portland Metro area.
- Dedicate outreach and contractor recruitment resources to promote participation of minority- and women-owned firms in Energy Trust's Trade Ally Network.
- Leverage Multnomah County and Prosper Portland's (formerly the Portland Development Commission) PropertyFit Commercial Property Assessed Clean Energy initiative as a financing option to enable deeper savings for interested customers.

2019 Key Assumptions, Risks and/or Challenges

- There are several key drivers leading to increasing acquisition costs for program savings. Increasing acquisition costs are due to a combination of declining average savings per project and additional outreach and engagement resources needed:
 - **Measure-level savings changes:** In 2019, measure-level savings for faucet aerators will be reduced by 70-80 percent and directly installed LEDs by 20 percent, with additional reductions in common area lighting savings. Non-energy benefits are also significantly impacted. Non-energy benefits are a strong contributor to overall cost-effectiveness of the program.
 - **Market saturation and project size:** As the program continues to mature, increasing market saturation in larger properties, combined with higher volume of smaller projects, will lead to continued decline in average savings per project and increased cost-of-acquisition for new savings opportunities.
 - **Need for customized engagement tactics:** The recent program performance and market potential report identified that the program's lowest participation rates are in smaller properties and non-metro areas. These customers represent a significant opportunity for the program. However reaching them requires developing new and tailored customer-engagement approaches, which will require more Energy Trust and PMC staff time and effort to develop and implement.

2020 Expected Changes

- Several key measures are at risk of discontinuation for 2020, which could impact a large portion of the program. Combined, these measures comprise over half of the program's electric savings.
 - In response to the measures and offerings at risk of reduced savings or discontinuation, the program will assess redesign opportunities in 2019, which may drive notable shifts in delivery, offerings and strategies in 2020.
- 2020 will be the fifth and final year of the current PMC contract; the program will be required to conduct a rebid for 2021 implementation.

Commercial sector—New Buildings

New Buildings Program Description

New Buildings influences commercial design and construction practices to deliver buildings with low energy use. Program staff work closely with building owners and design teams to make energy considerations part of building design criteria and an asset for the building owner in both major renovations and new construction projects. Outreach managers influence a broad range of market actors, leveraging energy-efficiency and renewable energy strategies and incentives to achieve energy savings targets. New Buildings delivers highly technical solutions, simplified where possible, to create cost-effective, above-code options that leverage architectural design solutions and systems. New Buildings provides incentives to support high-performance design, including early design assistance, energy modeling incentives and a solar ready offering; incentives for whole building approaches including modeled savings, standard incentive packages for small commercial buildings; and prescriptive and calculated incentives such as standard offerings and lighting calculators. CLEAResult Consulting Inc. will deliver PMC services.

2019 Strategic Focus

- **Guide all projects on the path to higher performance.** Build broader market demand for high-performance buildings in Oregon through the expanded use of tools like target-setting for energy use. This activity increases awareness of building energy consumption, and can be a spur to motivate further energy reductions in design and operations.
- **Engage a more diverse audience.** The program will work with Multicultural Collaborative to identify specific ways to increase diversity, equity and inclusion and improve benefits delivered to the market and our customers. The program will take a broad look across the new construction market, from trades to building owners to training, focusing the partnership on bringing new ideas and perspectives into the program.
- **Increase overall market capacity.** This will be the third code change since 2010 necessitates that the program to develop more comprehensive savings strategies and building-level incentives to continue the path to the next set of code changes. As code changes reduces incentive options, the program will ramp up market transformation activities that advance the uptake of high-performance building design. Strategic activities include: .
- **Deploy innovative customer engagement solutions; develop and deliver targeted offerings.** The program will enhance offerings and delivery through several new market partnerships.
 - Seventhwave’s successful US Department of Energy building procurement pilot will be an added component of the program’s training and education series.
 - Waypoint Building Group’s approach to engaging harder-to-reach commercial real estate decision-makers will target the office and retail tenant improvement statewide.
- Ecotope will support the program’s technical developments, bringing expertise in HVAC and building-level strategies, also bringing new technologies and strategies suited for multifamily buildings and schools.

2019 Activities—Ongoing and New

Establish 2020-2024 Strategic Direction for Energy Trust

- Inform strategic planning staff on program progress with market transformation, market indicators and opportunities using the following: report on progress to annual goals, utilize the program’s predictive

2019-2020 Program Action Plans

tool for estimating changes to program-level cost-effectiveness, and report on market transformation activities.

- Bring the program's market insights, strong evaluation results and metrics into organizational strategic planning.

Improve productivity and organizational efficiency

- Continue providing customers with easy ways to complete program documentation by allowing DocuSign, email, in-person outreach especially into rural communities, and regional program delivery.
- Continue the program's streamlined market delivery of solar and energy efficiency support, expected to result in steady or increased engagement with schools, multifamily and public sector customers.
- Work with the Program's Management Contractor (PMC) to identify additional efficiencies that can be gained in future years and carried through during times of economic downturns.
- Efficiency gains in project processing will be prioritized, along with successful implementation of the W9 automation piloted in 2018 to reduce processing time.

Advance the viability, relevance and performance of programs

- Leverage results from Northwest Energy Efficiency Alliance's regional activities in several key areas, including codes and standards, commercial lighting, advanced HVAC and emerging technologies.
- Identify new strategies for affordable housing utilizing building-level analysis and incentives that align with the customer's financing and decision-making model.
- Energy Trust's third-party program evaluations will measure and report final energy savings and manage complex project evaluations that require additional customer engagement from the program's outreach managers.
- The program will leverage 2018 market research into program deployment to market segments that have not been participating at higher levels...

Increase customer participation and awareness of energy efficiency and renewable energy benefits

- Develop new ways to better serve the affordable housing new construction market, and propose building-level strategies and incentives that will better engage decision-makers building new housing.
- Enhance the program's information, training and education initiative, Allies for Efficiency, with newly targeted content and benefits like Continuing Education Credits to directly engage construction firms.
- Engage building owners and developers on new practices that drive energy goals into the contracting process when procuring high-performance buildings.
- Develop the ability to disseminate building performance data by collecting and aggregating performance across many projects, informing engineers and designers about actual energy performance of building designs, system types and design assumptions.
- Promote research results on prototypical net-zero designs for multifamily and office buildings brought through the program's 2017 Net Zero Fellowship, and develop new research projects to address major barriers to net zero energy buildings.
- Increase uptake with office and retail tenant markets by deploying a program with Waypoint Building Group to target commercial real estate transactions.

Diversity, Equity and Inclusion Activities

Background on diversity, equity and inclusion indicators and focus areas: In 2018, energy trust diversity, equity and inclusion committee developed indicators and focus areas based on a diversity, equity and inclusion data and baselining research to examine historical participation and set targets for programs. These focus areas relate to the three aspects of diversity—income, race and ethnicity, and rural and

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urban location—as described in the Energy Trust diversity, equity and inclusion operations plan developed in 2017.

In 2019, the program will incorporate methodology from Energy Trust diversity, equity and inclusion indicators into market assessments to measure progress in focus areas identified by program and diversity, equity and inclusion committee staff. Specific activities are listed below:

- Continue to provide direct access to program through outreach staff located within communities throughout Oregon.
- Use Energy Trust’s equity lens when defining market outreach strategies and program design priorities.
- Work with the Multicultural Collaborative to broadly identify new opportunities for the program in 2019 for 2020 through a program review and strategic plan. This will include a review of who the program is reaching effectively and how we can reach audiences that have not been engaged.
- For 2019 and beyond, New Buildings will work to expand the ability of low-income multifamily developers to meet energy efficiency goals. This may include targeted market research, tool development to help projects value energy efficiency measures early in design, and incentive packages to address equity and access.
- Expand our training platform by engaging a contractor and subcontractor audience through fine-tuned topics, expanded access to continuing education credits for contractors and expanded delivery methods, when possible, including interactive webinars.

2019 Key Assumptions, Risks and/or Challenges

- Based on early data from state economic forecasters, New Buildings anticipates overall construction activity to level off continuing at 2018 levels into 2019 and 2020.
- Currently, uncertainty around international tariffs, increasing construction costs and labor shortages are creating some slowdowns in part of the state. It is unclear if these will translate into an overall reduction in building activity.
- 2019 will be a critical year for measure development due the code release in 2020. New Buildings may need to shift more toward building-level analysis when engaging projects, using energy use intensity (an EUI metric) as a tool to influence significant energy-saving opportunities, more effectively influencing the broader market.

2020 Expected Changes

- The next Oregon energy code is expected to be released in mid-2019 with an effective date of fall 2019 and a mandatory implementation date of January 1, 2020.
- This code will be the third code change since 2010 and comes ahead of any foreseeable changes to utility avoided costs, creating uncertainties with creating the next increment of prescriptive incentives.
- In 2019, New Buildings will explore the best path forward for 2020 for advancing Path to Net Zero, market solutions, standard incentives and other incentives to continue to engage the market.

Commercial sector—Southwest Washington

Program Description Commercial Sector—Southwest Washington

Energy Trust provides a variety of incentives for customers on qualifying commercial firm or interruptible rate schedules, including:

- Upgrades and retrofits to customers with existing buildings
- Non-envelope projects to customers choosing to install energy-efficient equipment from the start of a new construction project
- Energy-efficient equipment and retrofits at existing and new multifamily properties with two or more units

The Washington Existing Buildings program offering consists of two tracks:

- The custom track saves natural gas through energy-efficient capital projects and operations and maintenance upgrades. Program Management Contractor account managers and engineering firms identify and promote customer opportunities. The custom track also includes opportunities in retro-commissioning, which features targeted incentives for operations and maintenance improvements such as controls or HVAC adjustments.
- The standard track provides incentives for standard measures with predetermined savings for buildings of all sizes and across all commercial market sectors. The program promotes measures through customer outreach and cultivation of trade ally contractors.

2019 Strategic Focus

- Strategic direction will be consistent with 2017 and 2018. The program will maintain existing tracks, market channels, market engagement activities and operational processes.
- Develop new strategies beyond 2019, including work on new measures and pilots and new construction options.
- Continue to develop new standard offerings to streamline the process for customers and trade allies who are too busy to pursue custom projects. This will include new offerings and changing some existing custom offerings to standard offerings.
- Track savings projections by track to proactively identify anticipated savings and budget impacts at a more tactical level over the next two to three years.
- Utilize utility and project tracking data to improve forecasting methodologies to achieve higher confidence factors for savings and budget.
- Increase outreach, technical services and other support to small- to medium-sized and rural commercial customers and trade allies.

2019 Activities—Ongoing and New

Increase the flexibility and adaptability of Energy Trust

- Identifying custom measures that can be converted to prescriptive measures allowing for adaptability of frequently used measures.
- Identify new pilots to increase savings opportunities for 2020.

Advance the viability, relevance and performance of programs

- Organize the trade ally and outreach team to effectively reach all prospective and eligible small business customers.

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- Perform market analysis to identify remaining market potential available to all tracks of the program.
- Identify new approach to direct install that can support Existing Buildings in Washington.
- Explore and utilize other market channels such as buy-down programs to more effectively deliver program elements such as restaurant equipment.

Increase customer participation and awareness of energy efficiency Identify additional ways to serve minority and underserved markets such as rural communities and tribes.

- Diversify program participation through increased outreach to small- to medium-sized businesses and trade allies.
- Continue collaboration with like-minded organizations such as Northwest Energy Efficiency Alliance (NEEA), Bonneville Power Administration (BPA) and the Regional Technical Forum (RTF) to identify opportunities for new measures, strategies and delivery channels.
- Increasing the portfolio of measures that are delivered midstream.
- Work with outreach and trade ally staff to create more tailored pieces for specific offerings, customer segments and contractor trades.
- Continue trade ally segmentation efforts, optimizing support depending on trade, program knowledge and participation and regional services.
- Provide sales support to trade allies to help them build program incentives into their business models to further energy efficiency.
- Build the technical knowledge of outreach staff on the value proposition of energy-efficient equipment choices.
- Increase activity of ICF market channel subject matter experts and trade ally coordinators to provide focused support ICF account managers working in Washington.
- Form an outreach subgroup focused on small business market penetration. The subgroup will coordinate with trade allies to identify and serve appropriate target-market small businesses.

Diversity, Equity and Inclusion Activities

Background on diversity, equity and inclusion indicators and focus areas: In 2018, Energy Trust diversity, equity and inclusion committee developed indicators and focus areas based on a diversity, equity and inclusion data and baselining research to examine historical participation and set targets for programs. These focus areas relate to the three aspects of diversity—income, race and ethnicity, and rural and urban location—as described in the Energy Trust diversity, equity and inclusion operations plan developed in 2017.

In 2019, the program will incorporate methodology from Energy Trust diversity, equity and inclusion indicators into market assessments to measure progress in focus areas identified by program and diversity, equity and inclusion committee staff. Specific activities are listed below:

- Provide strategic direction to PMC to enhance account management structure to better support small- and medium-sized businesses customers.
- Conduct focus groups with Spanish-speaking small- and medium-sized businesses, in coordination with Residential sector.
- Engage with diverse trade allies in commercial construction and design.

2019 Key Assumptions, Risks and/or Challenges

- Measures need to be developed that work for smaller businesses.
- Cost-effectiveness will continue to be a challenge as codes, standards and market baselines increase reducing the achievable savings per measure. As opportunities are becoming more and more limited

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as more customers are served, the cost of acquisition becomes greater as prospective program participants are more difficult to identify and influence.

- Partnerships with organizations dedicated to serving diverse communities will be key.

2020 Expected Changes

- There is a potential to offer small appliance incentives to support smaller restaurants and businesses as technology improves.
- Expiring gas measures are at cost-effectiveness risk and offerings may be eliminated. Some gas measures will expire at the end of 2019, including insulation that has historically provided up to 5 percent of total gas savings and boilers which have provided over 15 percent of savings in a typical year.
- 2020 energy efficiency code updates could eliminate boilers, which are a major source of gas savings (over 15 percent in a typical year and over 60 percent in 2017).

Industrial sector—Production Efficiency

Program Description Production Efficiency

Production Efficiency provides energy-efficiency solutions for all sizes and types of eligible industrial, agricultural and municipal water and wastewater customers. The program provides services and incentives through three primary delivery tracks: standard, custom and energy performance management.

Strategic Focus

- Implement and improve custom offerings. Manage a smooth transition to new custom delivery structure and program delivery contractor. Launch streamlined technical study process for small- to medium-sized customers. Continue to evolve Strategic Energy Management offering, adding cohorts to continuous Strategic Energy Management (SEM) and piloting SEM-lite offering.
- Implement and improve standard offerings. Continue to track lighting strategy to assess timing of LED baseline impacts and implement new program designs. Continue to introduce new prescriptive measures.
- Increase outreach, technical services and other support to small-to-medium and rural industrial customers.
- Increase gas projects completed in all tracks to help reduce fluctuations in annual savings.
- Improve internal processes and systems, including use of data and information to support program activities and management of all program tracks.

2019 Activities—Ongoing and New

Improve productivity and organizational efficiency

- Custom PDCs will directly process projects, to reduce lags and processing time.
- PDCs and custom and standard programs will utilize Energy Trust's Power BI dashboards as the single platform and approach for savings and incentive forecasting.
- Continue to review and improve PE technical and project approval processes to gain efficiencies.
- Continue to improve internal measure development processes.

Increase the flexibility and adaptability of Energy Trust

- Support targeted load management pilots to gain experience and reduce peak load in targeted pilots.

Advance the viability, relevance and performance of programs

- Manage large customer spending below SB 838 caps, and track and report on progress.
- Launch new custom track structure with SEM and technical services integrated into custom track PDC's scope of work.
- Implement new streamlined technical study process to increase participation for smaller custom projects.
- Add continuous SEM cohorts to the Continuous SEM offering to increase peer-to-peer engagement, reinforce modeling best practices and share best practices with customers.
- Develop streamlined SEM offering to engage underserved small and remote customers cost-effectively.
- Assess scoping tool and update the tool if needed. The scoping tool is a mobile based solution for PDCs to use during customer site walkthroughs to identify high level opportunity and provide feedback to the customer on next steps for participation in the program.

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- Assess and implement potential changes to the lighting track, such as changing the custom incentive, moving select measures to midstream, and revising or discontinuing the Performance Plus bonus offering for whole-building approaches.
- Implement advanced lighting controls pilot to better understand implementation and cost-effectiveness challenges with lighting controls, and evolve program offering.
- Develop new measures and calculator tools for small compressed air, irrigation, refrigeration and other common measures.
- Sustain irrigation measure suite for farmers and ranchers, many of whom are rural.
- Increase gas participation with measures such as process hot water boilers, steam traps and cannabis building insulation.
- Continue to assess the evolution of the cannabis sector, which is undergoing great change with Oregon Liquor Control Commission activities and overproduction. Evolve offering as needed.

Increase customer participation and awareness of energy efficiency and renewable energy benefits

- Develop marketing and outreach strategies and streamline delivery to small- to medium-sized industrial customers
- Recruit and add 15-29 new participants for first-year and Continuous SEM.
- Provide rural outreach and services to farmers, irrigators and their vendors. Leverage and collaborate with other agencies and nonprofits that are active in agriculture.
- Drive geographic diversity of gas and electric savings through outreach to trade allies, associations and other market actors across the state.
- Update and implement marketing, communications and event strategies to meet the needs of smaller customers and to support program outreach. Many marketing activities will continue, including direct marketing, materials to support PDC outreach, a quarterly newsletter, and sponsorship of industrial events such as the Oregon Manufacturing Awards.
- Work with standard track PDCs to recruit, train and support trade ally vendors to sell efficient products, equipment and systems. Increase participation of minority and women in Energy Trust's Trade Ally Network.

Diversity, Equity and Inclusion Activities

Background on diversity, equity and inclusion indicators and focus areas: In 2018, Energy Trust diversity, equity and inclusion committee developed indicators and focus areas based on a diversity, equity and inclusion data and baselining research to examine historical participation and set targets for programs. These focus areas relate to the three aspects of diversity—income, race and ethnicity, and rural and urban location—as described in the Energy Trust diversity, equity and inclusion operations plan developed in 2017.

In 2019, the program will incorporate methodology from Energy Trust diversity, equity and inclusion indicators into market assessments to measure progress in focus areas identified by program and diversity, equity and inclusion committee staff. Specific activities are listed below:

- **Apply diversity, equity and inclusion methodology to program analysis and design.** The program is going to use the following methodology to apply the learnings from the data and baselining project:
 - Review data group results
 - Analyze opportunity areas in conjunction with market opportunities and program offerings
 - Design diversity, equity and inclusion specific strategies and activities

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- Measure progress and continue to refine goals and offerings
- **Focus diversity, equity and inclusion efforts on small- to medium-sized customers in rural locations.** The program aims to increase participation of small- to medium-sized businesses in rural locations.
- **Continue ongoing diversity, equity and inclusion activities.** The program will continue activities to connect Production Efficiency offerings to customers with low or no participation with the program, including:
 - Developing custom PDC goals for increasing delivery of savings to small and medium businesses.
 - Tribal outreach by Evergreen Consulting Group.
 - Recruitment of minority and/or women trade allies and community-based organizations.

2019 Key Assumptions, Risks and/or Challenges

- The program assumes that the economic and energy- policy environment will not change in significant ways compared to 2017.
- If the SB 838 spending cap is exceeded for large energy users, the program will need to reduce spending on these customers. This is not expected in 2019.
- Production Efficiency costs and savings are historically difficult to forecast due to unpredictable project completion timelines and variable savings for large projects.
- As more small- to medium-sized customers are served, the program will need to scale delivery to manage program costs. Smaller projects are generally less cost effective since they have similar levels of account management and study costs with lower savings. Program cost-effectiveness may decrease as the number of small projects grows.
- Market trends indicate that the industrial lighting replacement market will be strong in 2019. It is very difficult to predict the level of lighting savings in 2020.

2020 Expected Changes

- Saving levels in the custom and SEM tracks are not expected to change significantly in 2020.
- Lighting savings are expected to decrease as some lighting measures will need to be phased out as result of the Energy Independence and Security Act and decreased product costs. In addition, lighting savings from cannabis customers could decrease due to the pause of Oregon Liquor Control Commission licenses resulting from overproduction in Oregon.
- Savings from the standard track are projected to remain flat in 2020. Participation in the compressed air leak reduction program is expected to continue to decrease based on current program trends. The effort has completed many projects and the recent loss of an active trade ally. In addition, there are many Production Efficiency measures that are up for measure approval review, including greenhouse measures. It is possible that some may be determined to be not cost-effective. However, the program is continually adding new measures and the new measures will likely make up the gap.

Residential sector—Residential Program

Program Description Residential Program

Energy Trust's Residential program provides electric and gas energy-efficiency solutions for residential customers of single-family homes, manufactured homes and newly constructed homes. Cash-back incentives are available for energy-efficient HVAC systems, thermostats, appliances and weatherization upgrades. Instant discounts are provided for water heating equipment, thermostats, lighting and showerheads. The program delivers services through four program tracks: home retrofit, manufactured homes, retail and distribution promotions and new construction.

2019 Strategic Focus

- Prepare Residential program and portfolio for reduced savings from lighting, new construction market transformation, water-saving measures and Energy Saver Kits by 2020.
- Work across the supply chain to support targeted approaches to cost-effective measure adoption.
- Identify opportunities for program design changes, operational efficiencies in incentive processing, trade ally management, quality assurance, consolidated measure analysis and submissions across multiple sectors to broaden and deepen program participation.
- Collaborate across programs to serve residential customers.

2019 Activities—Ongoing and New

Establish 2020-2024 Strategic Direction for Energy Trust

- Utilize a five-year measure savings analysis to inform two-year budget forecasts and support strategic planning.

Improve productivity and organizational efficiency

- Utilize meter data analytics software to improve measure design and delivery.
- Explore the use of thermostat data to expand targeted measure-specific promotions.
- Explore use of the contractor platform for program delivery for processing midstream distributor activity.
- Work closely with Solar and Existing Multifamily programs to streamline and promote customer participation.
- Collaborate with Existing Multifamily to develop increased incentives for single-family rental property measures, Savings Within Reach measures and on-bill repayment offers.

Increase the flexibility and adaptability of Energy Trust

- Support targeted load management pilots and coordinate with utility demand response programs to drive efficiency savings.

Advance the viability, relevance and performance of programs

- Develop and implement pilots such as Pay for Performance.
- Apply incentives to more than one point in the supply chain to align midstream channels with the new construction market.
- Due to reduction in lighting savings, reassess Energy Saver Kit products and explore new strategies to engage participants. Plan for changes to the current free kit offer in mid-2019 and for an alternative approach to establishing new customer relationships and introducing customers to energy savings opportunities from Energy Trust.

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- Maintain retail lighting and showerhead incentives with reduced saving per unit in 2019 to plan for significant energy savings reduction in 2020.
- Implement planned transition strategies for discontinuation of retail lighting incentives, with a focus on leveraging retail relationships to promote other cost-effective measures where available.
- Increase savings from emerging savings opportunities:
 - Increase promotion of smart thermostats through instant coupon and direct installation offers.
 - Drive adoption of efficient heat pump technology for heating and water heating systems.
- Explore transitioning clothes washer incentives from a customer incentive check to an instant discount.
- Apply findings from Energy Trust research to improve cost-effectiveness of ductless heat pumps.
- Expand relationships with community-based organizations to serve more income-qualified home owners and renters.
- Increase engagement in under-participating regions.
- Deploy strategies to engage the manufactured housing community, including continuing the manufactured housing replacement pilot with expansion to additional sites, and developing special promotions for technologies and services well suited for manufactured housing.
- Reduce investment in real estate ally network, while increasing customer awareness of energy efficiency through home energy assessors, community-based organizations and targeted promotions.
- Expand customized program designs and promotional tactics for heating and water heating system replacements, including contractor fixed price promotions and strategies to drive marketing to support lead generation among installers.
- Explore options for enhanced integration of solar and solar plus storage into the EPS™ new construction offer in anticipation of the long-range trajectory of state building codes.

Increase customer participation and awareness of energy efficiency and renewable energy benefits

- Develop targeted offers for lagging markets, such as fixed-price offers for heat pumps in electric resistance homes
- Develop a data-driven customer engagement and marketing strategy.
- Work effectively across the supply chain to support more targeted approaches.

Diversity, Equity and Inclusion Activities

Background on diversity, equity and inclusion indicators and focus areas: In 2018, Energy Trust diversity, equity and inclusion committee developed indicators and focus areas based on a diversity, equity and inclusion data and baselining research to examine historical participation and set targets for programs. These focus areas relate to the three aspects of diversity—income, race and ethnicity, and rural and urban location—as described in the Energy Trust diversity, equity and inclusion operations plan developed in 2017.

In 2019, the program will incorporate methodology from Energy Trust diversity, equity and inclusion indicators into market assessments to measure progress in focus areas identified by program and diversity, equity and inclusion committee staff. Specific activities are listed below:

The program will deploy three strategies to increase participation in targeted areas:

- Partner with community-based organizations and local entities to build relationships with new communities
- Develop and deploy strategies to reach diverse customers, especially non-English speaking customers, and support workforce development of new industry actors.
- Target underserved housing types, including rentals, affordable housing and manufactured homes.

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Specific activities include:

- Explore developing enhanced customer analytics tools that provide insight into customer demographics.
- Explore strategies and partnerships with community-based organizations to improve awareness and accessibility of the following technologies for low-income customers and single family rental homes: ductless heat pumps, gas furnaces, smart thermostats and heat pump water heaters.
- Support internship programs and deliver existing green building curriculums through new partnerships with community-based organizations.
- Develop marketing and engagement strategies for non-English speaking customers through translating materials, attending events, and conducting additional focus groups and research.
- Deliver trainings for non-English speaking contractors and other industry actors in the residential market.
- Target affordable housing in underserved communities by working with community partners via EPS New Construction.

2019 Key Assumptions, Risks and/or Challenges

- Future of Energy Saver Kits is uncertain due to reduced savings and maximum allowable incentives for lighting and water conservation products.
- Delivery of incentives to more than one point in the supply chain will be successful at addressing market barriers to encourage stocking efficient products and collecting necessary data from installers, while working within cost-effective limits
- Enhanced service offerings for EPS will drive additional uptake in EPS participation, mitigating attrition concerns due to code change.
- Customization of program offers through subsets of trade ally network or community-based organization's will cost-effectively yield increased savings of key measures including furnaces, heat pumps and thermostats.

2020 Expected Changes

- Discontinuation of lighting measures delivered through Energy Savings Kits.
- Discontinuation of the majority of lighting measures delivered through retail.
- Showerhead savings will be reduced based on the Regional Building Stock Assessment (RBSA) II results which will provide updated baseline flow rate assumptions for the stock of existing showerheads.
- Broader deployment of the pay for performance pilot based on 2019 results.
- Changes to EPS pathways in response to expiration of OPUC cost-effectiveness exception on for gas pathway 4 and electric pathways 1 and 2 at the end of 2019.

Residential sector—Southwest Washington

Program Description Residential sector—Southwest Washington

Energy Trust engages with builders to increase energy efficiency of newly constructed homes through incentives, education, trade and program ally support, and quality assurance. For single-family and small multifamily homeowners, Energy Trust provides energy savings through incentives for efficient space heating and controls, water heating, insulation, windows, water conservation and behavioral actions, education, trade ally support, financing with repayment through utility bills, and market interventions.

2019 Strategic Focus

- Expand participation
- Work effectively across the supply chain to support more targeted approaches to cost effective measure adoption
- Identify opportunities for program design changes, operational efficiencies in incentive processing, trade ally management, quality assurance, consolidated measure analysis and submissions processes across multiple sectors
- Continue to work with NW Natural to ensure alignment on goals of program delivery, outreach tactics and marketing strategies

2019 Activities—Ongoing and New

Advance the viability, relevance and performance of programs.

- Utilize the five-year measure savings tool to continually inform 2-year forecast and support strategic planning
- Work with NW Natural to ensure compliance to Washington Utilities and Transportation Commission regulatory requirements and to provide robust and accurate reporting.

Increase customer participation and awareness of energy efficiency and renewable energy benefits

- Reassess Energy Saver Kit fulfillment and plan for changes to the current free kit offer in mid-2019. Assess the opportunity to develop a marketplace solution to engage customers and offer access to low-cost or no-cost energy savings products.
- Increase savings from emerging savings opportunities such as smart thermostats through instant coupon and direct installation offers.
- Continue to support the trade ally experience through customized in-person engagements
- Engage and participate in trade industry associations including Clark County HVAC Trade Association, Clark County Rental Association and Building Industry Association of Clark County
- Collaborate with Clark PUD on direct install of smart thermostats for low-income customers
- Launch a rental gas furnace offer to home retrofit and multifamily programs.
- Continue to increase customer participation and awareness of multifamily incentive through trade ally and property management engagement
- Reassess Energy Saver Kit fulfillment and plan for changes to the current free kit offer in mid-2019, assessing the opportunity to develop a marketplace solution to engage customers and offer access to low-cost or no-cost energy savings products
- Continue to coordinate with NW Natural to facilitate stakeholder and trade ally relationships that drive participation and awareness.

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- Across the supply chain, expand the use of customized program designs and promotional tactics for heating and water heating system replacements (i.e. lead generation marketing).
- Program lead and conducted EPS New Construction field quality assurance, including coordination with verifiers to maintain quality assurance and quality control procedures.

Diversity, Equity and Inclusion Activities

Background on diversity, equity and inclusion indicators and focus areas: In 2018, energy trust diversity, equity and inclusion committee developed indicators and focus areas based on a diversity, equity and inclusion data and baselining research to examine historical participation and set targets for programs. These focus areas relate to the three aspects of diversity—income, race and ethnicity, and rural and urban location—as described in the Energy Trust diversity, equity and inclusion operations plan developed in 2017.

In 2019, the program will incorporate methodology from Energy Trust diversity, equity and inclusion indicators into market assessments to measure progress in focus areas identified by program and diversity, equity and inclusion committee staff. Specific activities are listed below:

- Collaborate with Clark Public Utility District and Clark County to implement a direct installation smart thermostat offer for low-income customers.
- Launch a rental gas furnace offer to for residential and multifamily customers.

2019 Key Assumptions, Risks and/or Challenges

- Showerhead savings and retail activity will continue to decline.
- Concept of intentional layering of incentives across the supply chain will be successful at addressing market barriers while working within cost-effective limits
- New construction will continue to be robust in Clark County. High market adoption and participation in EPS New Homes is expected.

2020 Expected Changes

- Showerhead savings have the potential to be impacted by RBSA II (Regional Building Stock Assessment) results (anticipate additional savings reductions).
- 2019 Washington Residential Energy code changes will impact 2020 planning and evaluation and 2021 New Homes administration and savings trends.