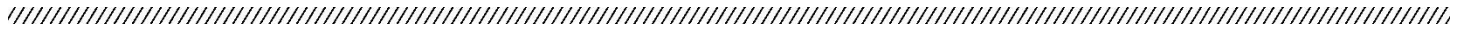


Quarter Three 2019 Report to the Oregon Public Utility Commission & Energy Trust Board of Directors





ENERGY TRUST OF OREGON
November 15, 2019

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I Results at a glance^{1,2}

Savings

 = Year-to-date goal  = Annual goal

⚡ Total electric savings



⚡ PGE



⚡ Pacific Power



🔥 Total natural gas savings



🔥 NW Natural



🔥 Cascade Natural Gas



🔥 Avista



¹ This document reports net savings. Net savings are adjusted gross savings based on results of current and past evaluations.

² Note that aMW indicates average megawatts, MMTh indicates million annual therms and M is million.

Generation

■ = Year-to-date goal ▨ = Annual goal

Total renewable generation



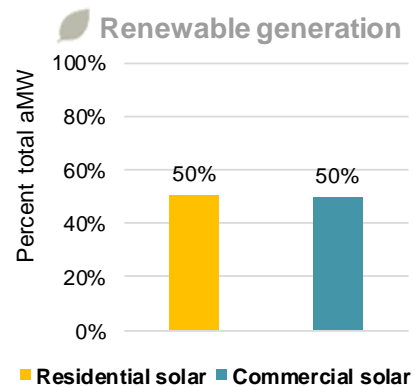
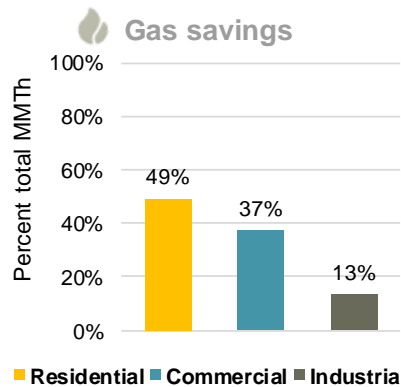
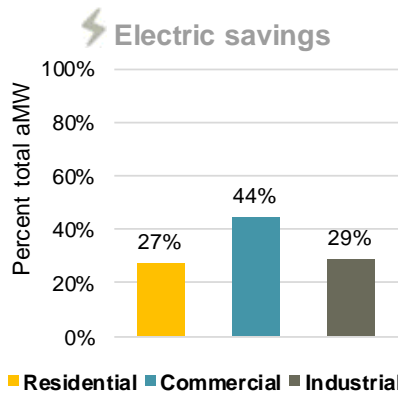
PGE



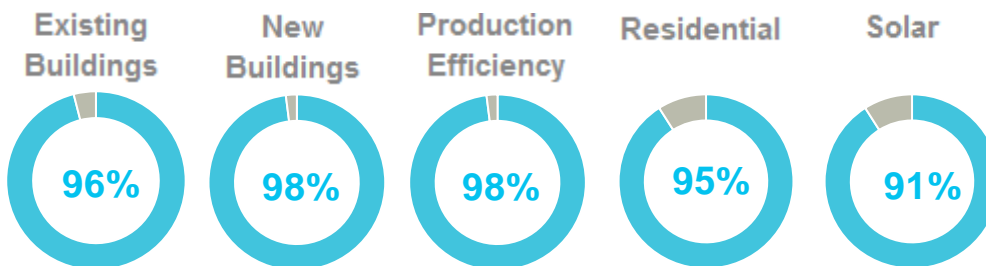
Pacific Power



Savings and generation by sector year-to-date³



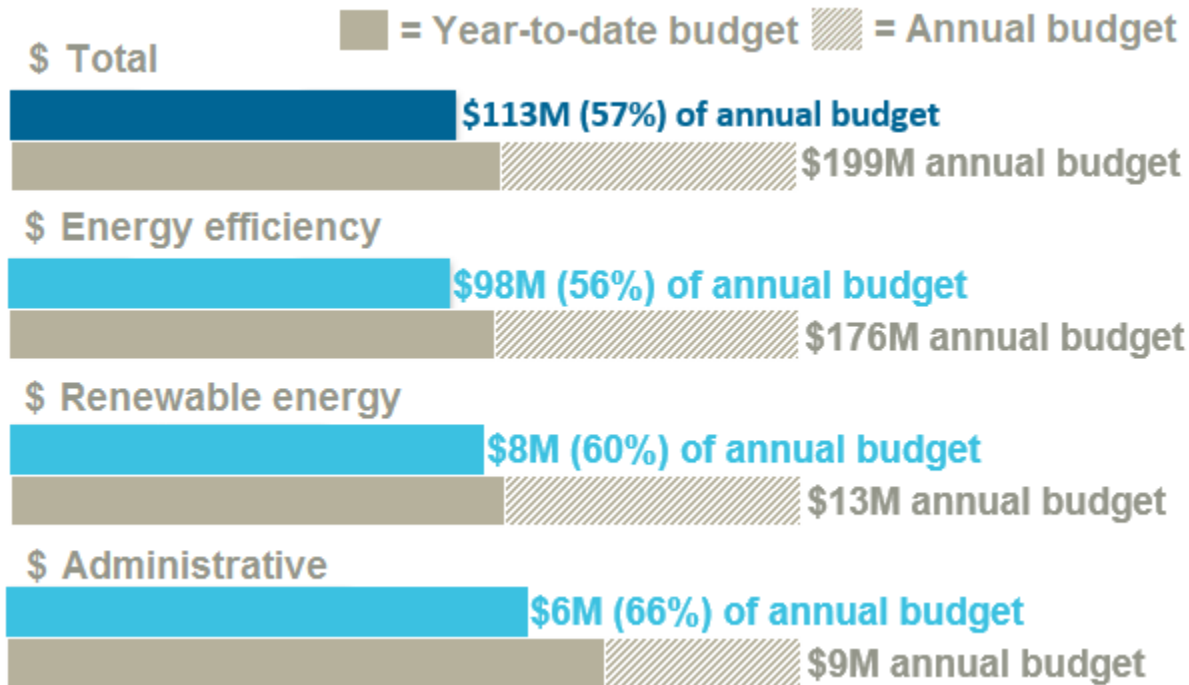
Customer satisfaction⁴



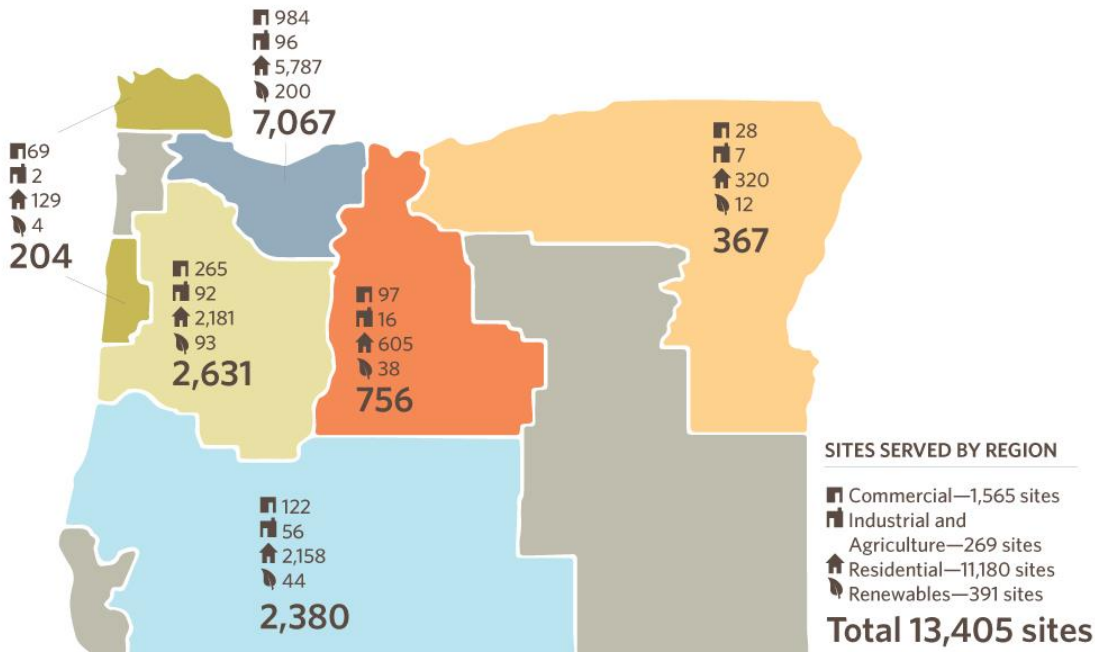
³ Charts may not total due to rounding.

⁴ From July to September 2019, Energy Trust delivered a short telephone survey to 681 randomly selected participants in five Oregon programs who completed projects between April and June 2019 and received an incentive or discount from Energy Trust. New Buildings participants are surveyed every other year, with the most recent survey in Q2 2018.

Expenditures⁵



Sites served by region⁶



⁵ Expenditures include public purpose funds only and exclude expenditures for Energy Trust’s subcontract to deliver the Oregon Community Solar Program. Quarter three actual expenditures for the Community Solar Program were \$55,956. For more information, see section four.

⁶ This document reports on Energy Trust services to Oregon customers of Portland General Electric, Pacific Power, NW Natural, Cascade Natural Gas and Avista. Areas in gray are not served by these utilities. Sites served excludes offerings purchased from distributors and retailers.

II Executive summary

A. Progress to energy efficiency and renewable energy goals^{7,8}

The purpose of the quarter three report is to identify year-to-date savings and generation and preview expected achievement to year-end goals based on indicators, such as pipelines and forecasts, with more information available than in quarter two.⁹

- **At the close of quarter three, Energy Trust expects to meet its annual energy efficiency goal in Avista territory and to fall short of goals for Portland General Electric, Pacific Power, NW Natural and Cascade Natural Gas territories.** Shortfalls are due in part to a constrained labor market and the impact of tariffs on materials costs, which are causing delays for commercial and industrial custom and lighting projects to be completed by customers.
- **Electric efficiency improvements completed in quarter three saved 7.9 average megawatts of electricity, contributing to 21.8 aMW year-to-date.** Year-to-date savings account for 41% of the 2019 goal of 53.2 aMW, which is lower than historical averages for reasons noted above.
- **Gas efficiency improvements completed during quarter three saved approximately 837,835 annual therms of natural gas¹⁰, contributing to 2.6 million annual therms year-to-date.** Year-to-date savings account for 43% of the 2019 goal of 6.0 million annual therms, which is slightly higher than historical average for this time of year.
- **Renewable generation is expected to exceed goals for PGE and Pacific Power territories** due to a growing residential market and declining equipment costs.
- **Renewable energy systems installed during quarter three will generate 0.59 aMW of electricity, contributing to 1.71 aMW of electricity year-to-date.** Year-to-date generation accounts for 76% of the 2019 goal of 2.25 aMW.
- **Year-to-date savings and generation achieved represent about 128,000 tons of carbon dioxide** kept out of the atmosphere, the equivalent of removing 27,000 cars from Oregon roads.

21.8

AMW SAVED

2.6

MILLION ANNUAL
THERMS SAVED

1.71

AMW GENERATED

128,000

TONS OF CARBON
DIOXIDE AVOIDED

⁷ This document reports net savings, which are adjusted gross savings based on results of current and past evaluations.

⁸ This report includes the best available energy savings data as of the date of submission. Energy savings reported here for periods prior to January 1, 2018 may be different than previously reported as a result of applying updated evaluation factors to Energy Trust savings and generation in Oregon through the annual true up process. The full True Up 2018 Report is available online at www.energytrust.org/reports.

⁹ Each report serves a specific purpose for communicating activities: quarter one reflects efforts to build a pipeline of projects through analyses, studies and outreach to achieve annual savings and generation goals; quarter two highlights the organization's mid-year savings and generation, previewing expected achievement of year-end goals based on early indicators, such as pipelines and forecasts, and reflecting changes in order to reach year-end goals; quarter three as above; quarter four reflects Energy Trust's final accomplishments and is delivered as an appendix to the annual report in April of the following year.

¹⁰ The gas savings do not include results for NW Natural in Washington. These results are available at www.energytrust.org/reports.

B. Notable activities and trends

- **Energy Trust launched bonus incentives to drive additional savings and spur investment in energy efficiency projects** as customers face today's market conditions, including a tighter labor market, increased equipment and labor prices and forecasts for a softening economy. New incentives included:
 - Lighting bonus incentives for commercial and industrial customers.
 - Bonus incentives for Existing Buildings package terminal heat pumps, occupancy sensors, condensing space heating boilers and retro-commissioning projects.
 - Bonus incentives for custom and standard Production Efficiency projects in PGE territory that complete in 2019.
- **The organization launched several new offerings to expand participation and develop new energy-saving approaches.** These included:
 - Residential Savings Within Reach offerings extended to small multifamily customers. Enhanced Savings Within Reach incentives make efficiency improvements more accessible for residents with moderate incomes.
 - New incentives for central air conditioning for small multifamily properties and incentives for Existing Buildings and Existing Multifamily customers who install efficient pools and spa equipment.
 - A new incentive for energy-efficient cannabis dehumidifiers.
 - A new lighting analysis study that helps industrial customers identify opportunities to improve efficiency in their facilities.
- **Energy Trust increased participation in Eastern Oregon through a tubular LED (TLED) promotion for commercial and industrial customers.** Participating trade allies forecast more than 50 projects to enroll by year-end, with installations expected to complete in 2020. If successful, this promotion will be implemented in other rural areas in 2020. The promotion included a public relations campaign to increase awareness of and participation in Energy Trust programs, which resulted in positive feature stories about Energy Trust and its customers in Eastern Oregon media.
- **Commercial and industrial sectors completed a five-year lighting savings strategy to mitigate future projected savings decreases** as some commercial and industrial lighting applications achieve market saturation. The strategy includes potentially changing to a distributor incentive and offering comprehensive design support.
- **Staff began working on a request for proposals (RFP) to rebid program management and delivery contracts for Existing Buildings and Existing Multifamily programs and commercial and industrial lighting offers** in 2020. This RFP will build on lessons learned from the Existing Multifamily Program Assessment and the commercial and industrial five-year lighting savings strategy. Consolidating the RFP for these three offerings will enable



LAUNCHED BONUS INCENTIVES AND OFFERS FOR COMMERCIAL, MULTIFAMILY AND INDUSTRIAL CUSTOMERS



EASTERN OREGON PROMOTION TO INCREASE PARTICIPATION



FIVE-YEAR LIGHTING PROJECTIONS AND STRATEGIES

better alignment of program strategies in 2021 and improve administrative efficiencies across programs.

- **Applications for residential solar incentives are increasing**, despite the expiration of the Residential Energy Tax Credit at the end of 2017. The increase is due partly to reduction in equipment costs.
- **Energy Trust continued to develop marketing and promotional plans for two targeted load management pilot projects with Pacific Power and NW Natural in 2020.** This included developing marketing strategies for Pacific Power’s spring marketing campaign in Phoenix and South Medford and NW Natural’s fall campaign in Cottage Grove and Creswell.
- In quarter three, **staff solicited public and stakeholder comments on the draft 2020-2024 Strategic Plan.** As part of this outreach, staff presented on the draft plan at 10 Pacific Power customer events held around the state, at an Energy Trust community reception in Pendleton and at stakeholder and industry group events. Energy Trust received an unprecedented number of comments on the draft plan and referenced these comments when revising the plan. The board adopted the Final Proposed 2020-2024 Strategic Plan in October.
- **Energy Trust held its July board meeting in Pendleton at the Confederated Tribes of the Umatilla’s Tamastslikt Culture Institute.** At the meeting, the board visited with representatives of the Confederated Tribes of the Umatilla Indian Reservation and learned about the longstanding work the tribes have completed with Energy Trust’s support. While in Pendleton, board and staff members visited customers and hosted a community reception about the organization’s draft strategic plan. The meeting and reception received strong community engagement and positive media coverage from several Eastern Oregon media outlets.



INCREASED SOLAR APPLICATION VOLUME



SOLICITED COMMENTS ON DRAFT STRATEGIC PLAN

C. Updates requested by the OPUC

This section provides information requested by the OPUC in comments provided on Energy Trust’s 2019 Budget and 2019-2020 Action Plan, plus other information requested by OPUC staff.

- **Residential and Existing Multifamily pilot and measure development and Existing Multifamily program assessment activities:**
 - **Staff continued the Existing Multifamily Program Assessment**, identifying opportunities to serve customers while addressing cost-effectiveness challenges. Findings and recommendations from the assessment will be presented in quarter four at the Conservation and Diversity Advisory Committees for review and feedback.
 - **Existing Multifamily program launched new incentives** described in the “Notable activities and trends” section.
- **Operational efficiencies focused on reducing transaction costs:**
 - Since launching a new DocuSign process and forms in quarter two, staff **reduced the time required to process legal contracts by 50%**, improving organizational efficiency and freeing up staff time for other work. DocuSign allows customers to electronically sign and submit program applications.

- After centralizing and streamlining the data transfer between Energy Trust's Project Tracker system and financial system, **Energy Trust launched a new feature to streamline the process for correcting errors in customer projects and payments.** The new feature identifies common sources of errors and provides staff with details about these error sources, **reducing staff time needed to process corrections by more than 60%.** Energy Trust processes thousands of projects each quarter and a small number of errors occur.
- **Diversity, equity and inclusion initiative progress:**
 - In quarter three, **Energy Trust continued to advance initiatives that will contribute to achieving its two-year diversity, equity and inclusion goals** that were established at the end of 2018. Energy Trust will include a detailed progress report on these goals as an appendix to its 2019 annual report.
 - Energy Trust held its first quarterly coordination meeting with Verde, pursuant to a mutual Memorandum of Understanding. **Energy Trust and Verde staff are co-developing a residential ductless heat-pump pilot for Portland's Cully neighborhood** that leverages Energy Trust incentives and a community-focused delivery model. The pilot is expected to launch in 2020.
 - **Energy Trust held the first meeting of the Diversity Advisory Council** in quarter three, following board approval of a charter and the first five council members. Recruitment for six additional members will continue until members are identified.
 - **Staff developed a plan for enhancing the organization's diversity, equity and inclusion data** and documented lessons learned for data quality, data collection and analysis.
 - **The OPUC approved new 2020 diversity, equity and inclusion performance measures for Energy Trust.**
 - **Energy Trust hosted a Community Resource Fair in collaboration with National Association of Minority Contractors-Oregon and Portland Housing Bureau** to educate Northeast Portland residents about resources for home repair, energy efficiency upgrades and opportunities for pre-apprenticeship trade programs. The event was supported by African American Alliance for Home Ownership, Community Energy Project, Constructing Hope, Hacienda, Oregon Tradeswomen and Portland Community Reinvestment Initiatives.
 - **Energy Trust engaged with City of Portland staff regarding the Portland Clean Energy Community Benefits Fund grant program**, which held two working sessions. Staff provided information on Energy Trust's mission and role, participation results and energy efficiency data sources used in Energy Trust program design. The group discussed potential opportunities for Energy Trust's collaboration with this emerging program.
 - **Staff continued developing relationships with community and civic organizations statewide.** See "Internal operations highlights" for details.
 - **More detail about progress toward diversity, equity and inclusion goals will be appended to Energy Trust's 2019 annual report.**
- **Organizational development initiative activities:**
 - Two staff teams began implementing plans to **improve organizational processes, readiness for the future and capacity to adapt to change:**
 - **The decision-making project team held a staff workshop** to test and validate prototype tools for more efficient and effective decision-making.

- **The innovation project team customized a framework for innovation** that can be applied at Energy Trust. Based on interviews with staff, the team identified roadblocks and opportunities for accelerating development of innovative ideas.
- **Additional organizational development activities included** staff communication about the business planning process and decisions and a baseline survey that will monitor the impact of organizational development activities over time. Staff also completed and rolled out updated organizational values.
- **Budget tools implementation update:**
 - Energy Trust **selected and completed contracting for a new budgeting software vendor, Prophix.** The software offers more process automation, improves staff ability to conduct trend analyses and scenario planning, and allows staff to develop savings and generation forecasts over a multi-year period. Staff is on track to use the new software to develop the 2021 budget in 2020.
- **Information about the impact of Energy Independence and Security Act rollback on Energy Trust's lighting offerings is available in Appendix 1 on page 24.**

III Program and operations activity

A. Commercial sector highlights

The commercial sector is comprised of three programs: Existing Buildings, Existing Multifamily and New Buildings, delivered by Program Management Contractors ICF International, Lockheed Martin and CLEAResult, respectively. The Existing Buildings program offers incentives for energy-efficient improvements in existing commercial buildings of all sizes. The Existing Multifamily program serves existing multifamily structures with two or more dwelling units, including market-rate housing, affordable housing, assisted living facilities, campus housing facilities, homeowners' associations and individual unit owners. The New Buildings program supports design and construction of high-performance commercial buildings and major renovations of all sizes and building types.

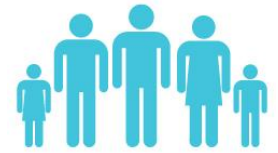
- **The commercial sector is forecast to fall slightly short of its annual goals for all utility territories.** Shortfalls were largely due to customer project delays in Existing Buildings and New Buildings projects that resulted from labor shortages and tariffs increasing impacting construction costs. Savings for Cascade Natural Gas territory will be impacted by a customer delaying a significant large project until 2020. Delays in rolling out incentives for boilers in coordination with NW Natural also contributed to the shortfall in gas savings.
- **Electric savings were supported by customer completion of Energy Trust lighting projects** in Existing Buildings and Existing Multifamily programs and by several New Buildings projects in the multifamily, office and warehouse sectors. Performance achieved by commercial Strategic Energy Management participants also contributed electric savings.
- **Spurring its gas savings, Energy Trust secured new** Existing Buildings standard track projects with grocery stores and restaurants; New Buildings market solutions, standard and lighting projects in schools and multifamily buildings; and water heater, smart thermostat, boiler and thermostatic radiator valve upgrades in multifamily buildings. A thermostatic radiator valve enables customers with hot water radiators to control the temperature of a room more easily.
- **In quarter three, the commercial sector promoted several new incentives and bonuses to help close the shortfall in forecasted electric savings:**
 - Commercial and industrial programs launched new lighting bonus incentives for customers.
 - **Existing Buildings released bonus incentives** for package terminal heat pumps, occupancy sensors, condensing space heating boilers and retro-commissioning projects.
 - **Residential Savings Within Reach offerings were extended to customers with small multifamily structures.** These enhanced



**LAUNCHED NEW
EXISTING BUILDINGS
AND MULTIFAMILY
INCENTIVES AND
BONUSES**

offerings make efficiency improvements more accessible for multifamily homeowners and renters with moderate incomes.

- **The program introduced new measures** for central air conditioning for small multifamily properties and incentives for efficient pools and spa equipment.
- **New Buildings engaged in more than 25 outreach activities aimed at growing relationships and expanding the program's reach to diverse customers.** Activities included presentations to minority-owned businesses and community-based organizations and multicultural event sponsorships.
- **In anticipation of Oregon's new building code that will take effect in October 2019, the New Buildings program continued to re-examine its program design for 2020.** Energy Trust anticipates the new code will require a significant shift in the program's whole-building offering, impacting savings and potentially requiring the customer participation process to be altered. Additionally, the program is examining how to provide more comprehensive assistance to small business and rural customers under this new code.
- **Savings from NEEA activities comprised 6% and 8% of the sector's year-to-date results** in PGE and Pacific Power territories, respectively. Savings in 2019 are from building code and equipment standards improvements, work with distributors and manufacturers to encourage stocking of efficient commercial lighting, and efforts to promote and support commissioning of new and existing commercial buildings. The 2019 savings also include work on commercial desktop ENERGY STAR® specifications.



ENGAGED IN
OUTREACH ACTIVITIES
TO GROW
RELATIONSHIPS WITH
DIVERSE CUSTOMERS

6%

OF COMMERCIAL
SECTOR SAVINGS IN
PGE TERRITORY FROM
NEEA ACTIVITIES

8%

OF COMMERCIAL
SECTOR SAVINGS IN
PACIFIC POWER
TERRITORY FROM
NEEA ACTIVITIES

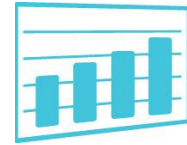
B. Industry and agriculture sector highlights

The industrial and agriculture sector provides energy-efficiency solutions for all sizes and types of eligible industrial, agricultural, municipal water and wastewater customers. The Production Efficiency program provides services and incentives through three primary delivery tracks: standard, custom and energy performance management. Production Efficiency is designed and managed in-house by Energy Trust staff and is delivered to customers through Program Delivery Contractors and other market actors.

- **The industry and agriculture sector expects to exceed goal in Pacific Power and Avista territories, and is forecasted to fall short of goals in all other utility territories.**
- **Savings shortfalls in NW Natural and Cascade Natural Gas service territories are attributed to customers completing fewer than expected custom projects.** However, increasing custom and calculated gas incentives in quarter two strengthened the custom project pipeline, resulting in an improved gas savings forecast in quarter three.
- **The expected electric shortfall in PGE territory is primarily due to customers completing fewer than expected lighting upgrades and**

custom projects. Overall, the lighting category is experiencing several market dynamics in PGE's territory, including:

- A **shortage of installation contractors** in a strong construction market, increasing materials costs due to tariffs and a **lower than average pipeline of lighting projects** for 2019.
- Energy Trust's **success in transforming the lighting market**, increasing the market baseline for efficient lighting and reducing the net increment of energy savings above baseline that Energy Trust can claim.
- **Fewer cannabis lighting projects** due to the suspension in new Oregon Liquor Control Commission licenses for cannabis businesses.
- **The sector launched several new efforts in quarter three to improve participation. Opportunities included:**
 - **Lighting bonus incentives** for commercial and industrial customers.
 - **Incentive bonus for custom and calculated PGE** projects that complete in 2019, which helped preserve the current project pipeline and generate new custom projects.
 - A **cannabis dehumidifier offering**, which will be promoted to customers who previously received cannabis lighting incentives.
 - A **lighting analysis study** that helps customers identify opportunities to improve efficiency in their facilities.
- The program **launched a streamlined first year Strategic Energy Management approach to boost participation. Staff recruited two cohorts**, one on the North Coast and one in Roseburg. Overall the program recruited 30 first year engagements.
- **Savings from NEEA activities comprised approximately 6% and 3% of the sector's year-to-date results** in PGE and Pacific Power territories, respectively. Savings in 2019 are from NEEA's reduced wattage lamp replacement initiative, certification of refrigeration operators in the industrial refrigeration market, and an initiative to improve awareness of and establish standards for efficient motors.



**SUCCESS IN
TRANSFORMING THE
LIGHTING MARKET**



**LAUNCHED NEW
BONUSES AND
INCENTIVES TO
INCREASE
PARTICIPATION**

6%

**OF INDUSTRY AND
AGRICULTURE
SECTOR SAVINGS IN
PGE TERRITORY FROM
NEEA ACTIVITIES**

3%

**OF INDUSTRY AND
AGRICULTURE
SECTOR SAVINGS IN
PACIFIC POWER
TERRITORY FROM
NEEA ACTIVITIES**

C. Residential sector highlights

Energy Trust's residential sector provides electric and gas energy-efficiency solutions for residential customers of single-family homes, manufactured homes and newly constructed homes. The program is delivered through Program Management Contractor CLEAResult and through two Program Delivery Contractors supporting retail promotions and EPS new construction offerings. Incentives are available for smart thermostats, energy-efficient HVAC and water heating equipment, lighting, appliances, weatherization upgrades and whole home improvements, and new construction.

- **The residential sector is on track to meet or exceed savings goals in all utility territories except for NW Natural. The savings shortfall in NW**

Natural territory is due to weaker demand for furnaces than was originally forecasted. Additionally, the demand for smart thermostats in NW Natural's service territory is falling short of the aggressive goals set for this utility.

- **Strong electric savings were driven by** retail lighting savings; high demand for Energy Saver Kits among targeted rural customers, communities of color and customers with low and moderate incomes; **and successful implementation of direct installation smart thermostats in PGE territory.** These smart thermostats support PGE's demand response efforts by offering customers no-cost installation of smart thermostats in electric-heated homes and low-cost installation of smart thermostats in gas-heated homes with air conditioning.
- **Gas savings continued to be driven by construction of new EPS™ homes** and related market transformation savings. Energy Trust also successfully increased demand for efficient showerheads and faucet aerators through Energy Saver Kits. Smart thermostat optimization savings also are expected to positively impact gas savings in 2019.
- **In quarter three, the residential sector pursued new activities to expand participation:**
 - **With OPUC approval in quarter three, Energy Trust planned to begin co-funding weatherization projects through Community Action of Washington County for PGE territory households in 2020.** This collaboration will enable more customers with low incomes to benefit from Energy Trust programs and savings. Following the 2020 rollout, Energy Trust will evaluate the feasibility of expanding this type of project to other interested community action agencies.
 - **The program launched new midstream appliance promotions** for front-loading clothes washers and electric clothes dryers. By providing these midstream incentives to retailers with savings passed onto customers, Energy Trust hopes to increase customer participation and lower the cost of implementation.
 - Approved in quarter two, a **new central air conditioning incentive** was rolled out to Energy Trust's trade ally network, with a broader market launch planned for 2020.
 - The program completed a competitive process to identify contractors who can provide **fixed price ductless heat pump offers to single family rental property owners.** For fixed-price offerings, Energy Trust provides an incentive to trade ally contractors who agree to offer equipment to customers at a reduced price. Building on its past success, the program also began providing **fixed price offers to install heat pumps in manufactured homes,** an effort that will continue into 2020.
- **All eligible residential lighting measures are now expected to be offered in 2020,** following the U.S. Department of Energy's delay in implementing the lighting standards defined by the Energy Independence and Security Act of 2007, which called for phasing out inefficient bulbs. See Appendix 1 on page 24 for more information.



SUCCESSFUL IMPLEMENTATION OF SMART THERMOSTATS IN PGE TERRITORY TO SUPPORT DEMAND RESPONSE EFFORTS



LAUNCHED NEW ACTIVITIES AND INCENTIVES TO EXPAND PARTICIPATION

- **Savings from NEEA activities comprised approximately 21% and 22% of the sector's year-to-date results** in PGE and Pacific Power territories, respectively. Savings in 2019 are primarily from residential building code improvements. Ductless heat pumps, heat pump water heaters and super-efficient dryers also deliver savings.

21%

OF RESIDENTIAL SECTOR SAVINGS IN PGE TERRITORY FROM NEEA ACTIVITIES

D. Renewable energy sector highlights

Energy Trust's renewable energy sector is comprised of two programs delivered in-house by Energy Trust staff: Solar and Other Renewables. The Solar program offers standard incentives for smaller-scale distributed systems for residential, business, public sector and nonprofit customers. In 2019, the program is focused on improving equitable access to solar for lower-income customers and expanding innovative applications of solar that provide greater value to communities or the grid. The Other Renewables program supports renewable energy projects up to 20 megawatts in nameplate capacity that generate electricity using biopower, geothermal, hydropower and community-scale, municipally-owned wind technologies. The goal of the program is to support a range of renewable energy technologies and improve market conditions for their development by providing project development assistance incentives and installation incentives.

22%

OF RESIDENTIAL SECTOR SAVINGS IN PACIFIC POWER TERRITORY FROM NEEA ACTIVITIES

- **The renewable energy sector is on track to exceed its 2019 generation goals in PGE and Pacific Power territories.**
- **The residential solar market has grown since the beginning of this year**, driving greater volume for new solar applications. The program received more than 500 residential solar applications in quarter three, nearly as many as were received in the same quarter of 2017 before the Residential Energy Tax Credit expired. Equipment cost decreases are a significant driver of the market's recovery.
- **The Solar program expanded efforts to reach potential customers and improve access to solar incentives:**
 - The program provided **solar development assistance for 12 projects pursuing Blue SkySM funding from Pacific Power customers**. The projects, proposed by nonprofit entities and public agencies, represent more than 1 megawatt of capacity.
 - The Solar program **launched a pilot with select trade allies to expedite the incentive payment process**, reducing program turnaround time from one month to one week and making the process faster and easier for high-performing trade allies.
 - **Staff began developing a new Solar Within Reach incentive**, which will be released in quarter four. This income-qualified incentive will be made available through a select group of trade allies.
 - **Staff provided data and market expertise to Oregon Department of Energy** as it develops new state incentive offerings for customers with low incomes and for solar-plus-storage systems. These state



EXCEEDING GENERATION GOALS IN 2019



DEVELOPING SOLAR WITHIN REACH INCENTIVE FOR INCOME-QUALIFIED CUSTOMERS

incentives are the result of the Rooftop Solar Incentive Fund, which was established by House Bill 2618.

- Irrigation modernization continued to experience strong support from federal agencies, which pairs with Energy Trust incentives and other funding sources to make these large, complex projects feasible. In quarter three, **an additional \$35 million was set aside in a federal agricultural appropriations bill to support irrigation modernization efforts in Oregon**. This brings the total federal funding commitment for Oregon's irrigation modernization efforts to \$110 million.
- Other Renewables supported a **ribbon-cutting for a new 22-kilowatt hydropower project at Wallowa Lake County Service District** in Eastern Oregon. Energy Trust provided \$80,000 in installation incentives for this project, which also received \$60,000 in Blue SkySM funding from Pacific Power customers.
- In July, the **Renewable Energy Advisory Council toured Clean Water Services' Durham water resource recovery facility**, including its biogas and solar projects. Council members learned about the customer's progress toward achieving its sustainability goals through renewable energy generation and energy efficiency improvements.



HELPING IRRIGATION DISTRICTS PURSUE MORE HYDROPOWER PROJECTS

E. Internal operations highlights

Energy Trust's internal operations teams support all program and organizational functions. These operational functions include communications (sharing organizational news, information and milestones with stakeholders, public reporting and public relations); customer service (providing customers with online and phone assistance in times of questions or problems); general marketing (educating customers and stakeholders through advertising, web content, social media and other marketing efforts); trade and program allies (engaging and supporting Energy Trust's network of 2,300 contractors and trade allies statewide); general outreach (providing regional and statewide support to customers, trade allies, partners, utilities and community organizations); IT and business systems (maintaining and improving Energy Trust's technology and business infrastructure); and planning and evaluation (estimating costs and savings of efficiency programs, developing long-range savings forecasts and evaluating effectiveness and impact of offerings).

- **Energy Trust received 122,000 website visits in quarter three**, generating 355,000 page views. More than 90% of all visitors to the website in quarter three were new visitors, higher than the typical 80%. The increased traffic was due to Energy Saver Kit promotional emails and the general awareness campaign (mentioned below).
- **Energy Trust received 3,500 calls** in quarter three, an increase of 16% over quarter two 2019.
- **Energy Trust processed more than 17,800 customer projects in Energy Trust systems**, including nearly 15,500 submitted through web applications.
- **Energy Trust launched a general marketing campaign to build greater awareness** about the benefits of energy efficiency, renewable energy and

122,000
WEBSITE VISITS

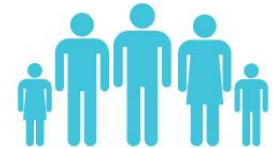
17,800
CUSTOMER PROJECTS PROCESSED

Energy Trust support for customers. The campaign included digital, radio, print and television advertising.

- Through its ongoing public relations efforts, **Energy Trust garnered 68 articles in quarter three**, 14 of which were a direct result of proactive efforts by Energy Trust. This print, digital and broadcast media coverage represents **a media value of \$223,000**—what it would have costs to purchase the equivalent advertising space or air time.
- **Energy Trust held the first meeting of the Diversity Advisory Council** in quarter three, following board approval of a charter and the first five council members. Recruitment for six additional members will continue until members are identified.
- **Energy Trust expanded awareness about programs and services with customers, trade allies and communities through its attendance at events** including the Oregon Coastal Caucus Conference, Governor’s Marketplace events, Eastern Oregon Economic Summit, Veteran Benefit Expo in Pendleton, Baker City Farmer’s Market, Multicultural Day in Salem, African American Homeownership Fair in Hillsboro and the Annual Round-up Governor’s Luncheon. Energy Trust also attended events held by Portland Blackburn Center, Beaverton Chamber of Commerce, Pacific Power’s Public Safety Shutoff program, League of Oregon Cities and Confederated Tribes of the Umatilla Indian Reservation.
 - Energy Trust also participated in a **“welcome home” event for residents at the Oak Leaf Manufactured Home park**. Oak Leaf is the first complete community project participating in Energy Trust’s Manufactured Home Replacement Pilot program, which replaces aging, inefficient manufactured homes with high efficiency homes. The welcome home event was held in partnership with St. Vincent de Paul Society of Lane County (the park’s owner), Verde, Living Cully and others.
- **Staff also presented at 10 Pacific Power efficiency and renewable energy events** in Hood River, Albany, Corvallis, Cottage Grove, Independence, Pendleton, Enterprise, Stayton, Madras and Klamath Falls. At these events, Energy Trust shared an overview of the draft Strategic Plan and information about how business customers can participate in Energy Trust programs.
- **Outreach staff provided information about Energy Trust programs and results through briefings with stakeholders** and elected officials and meetings with Clackamas County, Portland Business Alliance and Coalition for Communities of Color.
- **Energy Trust launched a streamlined trade ally newsletter** to make it easier for trade allies to navigate content and find critical information, such as information about program changes.
- **Staff designed 65 new energy-efficiency measures** and revised 68 measures.
- **Staff completed and posted two evaluations and market studies** on the Energy Trust website: 2013-2014 Production Efficiency Impact Evaluation and 2018 Fast Feedback Annual Report.

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NEWS STORIES ABOUT ENERGY TRUST



EXPANDED AWARENESS THROUGH EVENTS



STREAMLINED TRADE ALLY NEWSLETTER

- **Staff collaborated with NW Natural** to identify options for assigning additional value to efficiency that helps avoid or delay distribution pipeline investments.
- **Staff continued to refine load profiles** to better quantify Energy Trust savings and demand reduction benefits.
- **Staff also refined the resource assessment model** that will be used in quarter four to provide 20-year energy efficiency forecasts to Cascade Natural Gas and NW Natural.
- After centralizing and streamlining the data transfer between Energy Trust's Project Tracker system and financial system, **Energy Trust launched a new feature to streamline the process of correcting errors in customer projects and payments.** The new feature identifies common sources of errors and provides staff with details about the source of errors, **reducing staff time needed to process corrections by more than 60%.** Energy Trust processes thousands of projects each quarter and a small number of errors occur.
- Staff launched phase one of project to **transition the current paper-based process for tracking measure development information to an electronic process** housed in Project Tracker. This first phase will reduce staff time required to process measure changes ahead of the new year.



**STREAMLINED DATA
PROCESSING**

IV Revenues and expenditures tables^{11,12}

A. Revenues and expenditures summary¹³

- Overall revenues totaled \$38.7 million for Q3 2019, 1% below what was budgeted.
- Q3 expenditures totaled \$38.6 million, of which \$17.8 million was for incentives.
- Q3 electric efficiency expenditures were 12% below budget.
- Q3 gas efficiency expenditures were 8% below budget.
- Q3 renewable energy expenditures were 10% below budget.

B. Revenues¹⁴

Source	Q3 actual revenues	Q3 budgeted revenues
Portland General Electric	\$ 9,140,938	\$ 9,430,217
PGE Incremental	\$ 11,987,469	\$ 12,155,700
Pacific Power	\$ 6,487,041	\$ 6,836,677
Pacific Power Incremental	\$ 7,652,540	\$ 7,410,233
NW Natural	\$ 1,752,958	\$ 1,827,158
NW Natural Industrial DSM	\$ 769,658	\$ 769,769
Cascade Natural Gas	\$ 323,908	\$ 227,003
Avista	\$ 522,968	\$ 522,968
Low- and moderate-income grant	\$ 12,918	\$ -
Oregon Community Solar Program	\$ 86,659	\$ 100,206
Total	\$ 38,737,055	\$ 39,279,932

¹¹ Columns may not total due to rounding.

¹² The gas savings do not include results for NW Natural in Washington. These results are available at www.energytrust.org/reports.

¹³ Revenues and expenditures in Section A include public purpose funds only and exclude funds for a subcontract to deliver the Oregon Community Solar Program and funds for low- and moderate-income solar innovation grants. Revenues and expenses for the Oregon Community Solar Program and low- and moderate-income solar innovation grants are included in the tables.

¹⁴ Revenues in Table B include public purpose revenue, including incremental electric revenue from SB 838, and revenue from the low- and moderate-income solar grant and the Oregon Community Solar Program. Incremental revenues are those authorized under SB 838 to support capturing additional cost-effective electric efficiency savings above the amount supported by funding through SB 1149.

C. Expenses

Source	Q3 actual expenditures	Q3 budgeted expenditures
Portland General Electric	\$ 18,584,698	\$ 22,274,245
Pacific Power	\$ 13,774,933	\$ 14,597,147
NW Natural	\$ 4,667,599	\$ 5,007,953
NW Natural Industrial DSM	\$ 519,322	\$ 802,984
Cascade Natural Gas	\$ 524,911	\$ 560,371
Avista	\$ 485,880	\$ 386,334
Low- and moderate-income grant	\$ 12,918	\$ -
Oregon Community Solar Program	\$ 55,956	\$ 65,956
Business development	\$ -	\$ -
Total	\$ 38,626,216	\$ 43,694,989

D. Expenditures by sector and program

	Q3 actual expenditures	Q3 budgeted expenditures	
Commercial	Existing Buildings	\$ 8,053,931	\$ 11,075,203
	Existing Multifamily	\$ 1,941,340	\$ 2,312,184
	New Buildings	\$ 3,604,275	\$ 4,155,936
	NEEA Commercial	\$ 1,040,753	\$ 856,862
	Commercial total	\$ 14,640,298	\$ 18,400,184
Industrial	Production Efficiency	\$ 7,374,802	\$ 8,272,644
	NEEA Industrial	\$ 16,201	\$ 32,006
	Industrial total	\$ 7,391,003	\$ 8,304,650
Residential	Residential	\$ 10,592,377	\$ 10,364,639
	NEEA Residential	\$ 1,180,194	\$ 1,194,535
	Residential total	\$ 11,772,572	\$ 11,559,174
Energy efficiency total		\$ 33,803,872	\$ 38,264,009
Renewables	Solar	\$ 1,866,081	\$ 2,126,613
	Other Renewables	\$ 785,750	\$ 835,578
	Renewable generation total	\$ 2,651,831	\$ 2,962,191
Administration	Administration	\$ 2,105,378	\$ 2,406,371
	Administration total	\$ 2,105,378	\$ 2,406,371
Other	Low- and moderate-income grant	\$ 12,236	\$ -
	Oregon Community Solar Program	\$ 52,899	\$ 62,419
	Business development	\$ -	\$ -
Total expenditures		\$ 38,626,216	\$ 43,694,989

E. Incentives paid

Quarter	PGE efficiency	Pacific Power efficiency	NW Natural efficiency	Cascade Natural Gas efficiency	Avista efficiency	PGE generation	Pacific Power generation	Total
Q1	\$3,920,613	\$3,171,264	\$1,849,998	\$150,184	\$113,578	\$789,880	\$892,848	\$10,888,365
Q2	\$10,212,532	\$6,036,455	\$2,953,692	\$390,545	\$224,498	\$802,726	\$998,901	\$21,619,349
Q3	\$7,360,170	\$5,639,493	\$2,558,808	\$270,212	\$246,215	\$936,120	\$794,609	\$17,805,626
Total	\$21,493,314	\$14,847,213	\$7,362,497	\$810,941	\$584,291	\$2,528,725	\$2,686,358	\$50,313,340

V Savings and generation tables^{15,16,17,18,19}

A. Savings and generation by fuel

	Q3 savings/generation	YTD savings/generation	Annual goal	Percent achieved YTD
Electric savings	7.9 aMW	21.8 aMW	53.2 aMW	41%
Natural gas savings	837,835 therms	2.6 million therms	6.0 million therms	43%
Electric generation	0.59 aMW	1.71 aMW	2.25 aMW	76%

B. Progress toward annual efficiency goals by utility²⁰

	Q3 savings	YTD savings	Annual goal	Percent achieved YTD	Annual IRP target	Percent achieved YTD
Portland General Electric	4.0 aMW	12.1 aMW	33.5 aMW	36%	34.5 aMW*	35%
Pacific Power	3.8 aMW	9.7 aMW	19.7 aMW	49%	20.2 aMW	48%
NW Natural	690,906 therms	2.1 million therms	5.2 million therms	41%	5.2 million therms	41%
Cascade Natural Gas	67,163 therms	260,501 therms	511,553 therms	51%	582,464 therms	45%
Avista	79,766 therms	216,017 therms	360,682 therms	60%	294,720 therms	73%

* Integrated Resource Plan for Portland General Electric is pending acknowledgement by the OPUC.

¹⁵ Columns may not total due to rounding.

¹⁶ This document reports net savings. Net savings are adjusted gross savings based on results of current and past evaluations.

¹⁷ Electric savings also include transmission and distribution savings.

¹⁸ The gas savings do not include results for NW Natural in Washington. These results are available at www.energytrust.org/reports.

¹⁹ Energy Trust reports 100% of generation and capacity for renewable energy installations supported by Energy Trust's cash incentives. While some of these projects have additional sources of funding, Energy Trust enabled project completion.

²⁰ Integrated Resource Plan targets are shown in net savings and have been updated from the IRP targets Energy Trust submitted to utilities for inclusion in their current IRP filings based on 2019 net-to-gross ratios.

C. Electric savings by sector and program²¹

		Q3 savings aMW	YTD savings aMW	Annual goal aMW	Percent achieved YTD
Commercial	Existing Buildings	1.6	5.7	14.2	40%
	Existing Multifamily	0.3	0.9	1.5	61%
	New Buildings	0.7	2.3	6.2	38%
	NEEA Commercial	0.3	0.7	2.4	29%
Commercial total		2.9	9.6	24.3	40%
Industrial	Production Efficiency	2.6	6.0	18.8	32%
	NEEA Industrial	0.16	0.25	0.07	357%
Industrial total		2.7	6.2	18.9	33%
Residential	Residential	1.6	4.6	6.8	69%
	NEEA Residential	0.6	1.3	3.2	40%
Residential total		2.3	5.9	10.0	59%
Total electric savings		7.9	21.8	53.2	41%

D. Natural gas savings by sector and program²²

		Q3 savings thm	YTD savings thm	Annual goal thm	Percent achieved YTD
Commercial	Existing Buildings	103,438	544,311	1,536,231	35%
	Existing Multifamily	63,226	125,245	145,321	86%
	New Buildings	96,035	308,576	845,608	36%
	Commercial total	262,699	978,132	2,527,160	39%
Industrial	Production Efficiency	129,402	351,900	1,102,463	32%
Industrial total		129,402	351,900	1,102,463	32%
Residential	Residential	445,734	1,289,547	2,413,207	53%
Residential total		445,734	1,289,547	2,413,207	53%
Total natural gas savings		837,835	2,619,578	6,042,831	43%

E. Renewable energy generation by utility

	Q3 generation aMW	YTD generation aMW	Annual goal aMW	Percent achieved YTD
Portland General Electric	0.32	0.87	1.22	71%
Pacific Power	0.27	0.84	1.03	82%
Total	0.59	1.71	2.25	76%

²¹ Energy Trust updated its allocation methodology in quarter three to shift a small portion of NEEA savings from commercial to industrial.

²² Energy Trust allocated budget to NEEA for gas market transformation activities. While there were no associated savings in 2019, savings are expected in subsequent years.

F. Renewable energy generation by program

	Q3 generation aMW	YTD generation aMW	Annual goal aMW	Percent achieved YTD
Solar	0.59	1.71	2.02	85%
Other Renewables	0.00	0.00	0.24	-
Total generation	0.59	1.71	2.25	76%

G. Incremental utility SB 838 expenditures²³

Utility	2019 Q3 SB 838 Expenditures		YTD SB 838 Expenditures	
Portland General Electric	\$	243,119	\$	755,140
Pacific Power	\$	186,343	\$	582,092
Total	\$	429,461	\$	1,337,232

²³ Reflects expenditures by Pacific Power and PGE in support of utility activities described in SB 838. Reports detailing these activities are submitted annually to the OPUC.

APPENDIX 1: Impact of Energy Independence and Security Act rollback on Energy Trust's lighting offerings

This appendix describes Energy Trust's retail lighting exit strategy for 2020 and 2021 and the market analysis and assumptions driving that strategy, including the impact of rolling back the federal Energy Independence and Security Act (EISA) standards in September 2019.

In the absence of federal lighting standards, Energy Trust will continue to apply criteria defined in its retail lighting exit strategy to determine when and where to exit the retail lighting market. Based on these criteria, staff determined that retail lighting will continue to be cost-effective in 2020. In 2021, staff expects to reposition lighting offerings to focus on rural and lagging markets.

Overview of the retail lighting exit strategy

In 2017, Energy Trust developed a retail lighting exit strategy to guide the organization's decisions about when and how to exit the retail lighting market. The approach is to monitor and adjust retail lighting offerings based on a set of criteria and a market analysis performed twice a year. Market indicators include LED market share, incremental price of ENERGY STAR® LEDs, energy savings and cost-effectiveness.

The strategy describes the data sources that will support monitoring and evaluation efforts; an evaluation, decision-making and change implementation timeline; and trigger points that will be reviewed during evaluation periods. Twice each year beginning in 2017, staff review market analyses and other relevant information and agree upon an approach for the following six months.

Market information and analyses findings

In summer 2019, staff evaluated market information and analyses and determined that incentives remain appropriate for cost-effective lighting categories. Market information and analysis findings included:

- Northwest Energy Efficiency Alliance's (NEEA) lighting market report and the Energy Trust internal lighting market report, with key takeaways that:
 - LED market share continued to grow but at a slower pace than in previous years. LED market share ranges between 30-70% depending upon the retailer type and bulb category.
 - Inefficient halogens still have a significant presence in most retailers.
 - LED pricing is largely unchanged since the previous year's market analysis.
 - Most LED lighting categories are still cost-effective.
- A notice on September 5, 2019 from the U.S. Department of Energy, which stated that lighting standards are not economically justified and the additional Energy Independence and Security Act requirements of 45 lumens will not be implemented in 2020 or at any time after.
- A CLEAResult industry survey of 14 manufacturers and eight retailers, which found that:
 - 10 of 14 LED/halogen manufacturers surveyed plan to continue making halogens available through 2020 (represents 44% of current market share).

- Only two manufacturers surveyed will discontinue manufacturing halogens in 2020 (represents 8% of current market share).
- Major manufacturers plan to continue manufacturing halogen A-lamps through 2020.
- Manufacturers are not seeing changes to retailer product displays, and most retailers are still ordering halogen lamps.

Predictions for 2021 retail lighting

Energy Trust staff expects LED market share will continue to grow in 2020. By 2021, market share of general purpose and downlight LEDs likely will reach a level that warrants the program to cease incentive support in most large retailers and to focus program efforts on lagging markets such as rural hardware stores and retailers that serve low- and moderate-income customers (such as Dollar Tree). NEEA's recent lighting market report also indicates that large retailers such as Walmart may also be lagging in the amount of shelf space they dedicate to LED products.

For 2021, the program assumes that only specialty LED categories (e.g. candles, globes, etc.) will be incentivized at large retailers. Program support is expected to continue for most LED categories at stores that serve lagging markets.

Commercial and industrial lighting market landscape

Adoption of LEDs have grown significantly in commercial and industrial sectors, however to a much smaller extent than in the residential market. Screw-in LEDs are a small share of the commercial and industrial lighting market. Multifamily buildings are the exception, as screw-in LEDs represent the majority of lighting savings for residential tenants. Commercial and industrial lighting changes lag those in residential, because embedded lighting equipment lasts longer, and replacements and upgrades require more effort and relative cost. There is no EISA equivalent for the types of lighting that dominate commercial and industrial applications. Nevertheless, Energy Trust is monitoring some applications, such as tubular LEDs (TLEDs), where price reductions and market penetration are starting to signal that less support and incentives will be needed in future years.

Energy Trust is observing declines in 2019 lighting savings due to the impact of tariffs on lighting costs and competing business needs as customers face a softening economy and a tight labor market for contractors. Yet there is still opportunity to acquire cost-effective lighting savings from commercial and industrial customers. For 2020, Energy Trust will increase lighting incentives for its commercial and industrial programs, including its Existing Multifamily program to counter the lighting savings declines. Incentive increases are focused on measures that have longevity in the program.

In addition, Energy Trust completed a five-year commercial and industrial lighting savings strategy to identify what types commercial and industrial lighting applications may achieve deeper market saturation over this period. The lighting savings strategy also identified other actions and/or applications that could be accelerated sooner to offset areas of savings decreases. The strategy includes potentially changing to a more midstream distributor incentive offerings and providing a comprehensive design approach as an integral part of the program.

Next steps for 2021 commercial and industrial lighting

In 2020, the organization will rebid delivery contracts for Existing Multifamily, Existing Buildings and commercial and industrial lighting to better align strategies across business programs and to encourage new, innovative approaches to delivery in 2021 that leverage the five-year analysis and/or go beyond it. Transition to the new commercial and

industrial lighting program design will occur in 2021, informed by proposals received in 2020 and the commercial and industrial lighting strategy. Significant changes will be reviewed with Energy Trust's Conservation Advisory Council and other stakeholders as part of 2021 budget development and stakeholder engagement.